



AECOM
8320 Guilford Road, Suite L
Columbia, MD 21046

240.565.6501 tel
410.884.9271 fax

July 29, 2014

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

AECOM Project: 60144763

Subject: Well Abandonment Report
7-Eleven Store No.22281
2400 Pleasantville Road
Fallston, Maryland
Facility ID No. 0006365
MDE Case No. 2005-0120HA

Dear Ms. DeBartolomeo:

On behalf of 7-Eleven, Inc. (7-Eleven), AECOM is submitting this *Well Abandonment Report* in response to the Maryland Department of the Environment (MDE) directive letter dated May 28, 2014 (included as **Attachment A**) approving closure and abandonment of five monitoring wells (MW-1B, MW-2, MW-3A, MW-3B, and HW-2). A site map depicting the approximate locations of these wells is included as **Figure 1**.

Five monitoring wells (MW-1B, MW-2, MW-3A, MW-3B, and HW-2) were abandoned by Eichelbergers, Inc., a Maryland-licensed driller on June 30, 2014. The PVC casing of each well was filled from the bottom with a Type II Portland cement and Benseal mixture (10:1) to approximately 6 inches below ground surface (bgs). The monitoring well manhole and concrete pad surrounding each well was removed. The three wells located within the parking lot (MW-1B, MW-2, and 3A) were finished to grade with an asphalt patch. The two monitoring wells located in the grass (MW-3B and HW-2) were finished to grade with topsoil, seed, and straw. Photodocumentation of the monitoring wells before and after abandonment is included as **Attachment B**. Driller log reports documenting abandonment operations are included as **Attachment C**.

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

Yours sincerely,

Nathan Pinsker
Environmental Scientist
Nathan.Pinsker@aecom.com

Rachael Allen
Project Manager
Rachael.Allen@aecom.com

Marie Treiber
Regional Senior Project Manager
Marie.Treiber@aecom.com

cc: Harford County Health Department
7-Eleven Project File

Attachments:

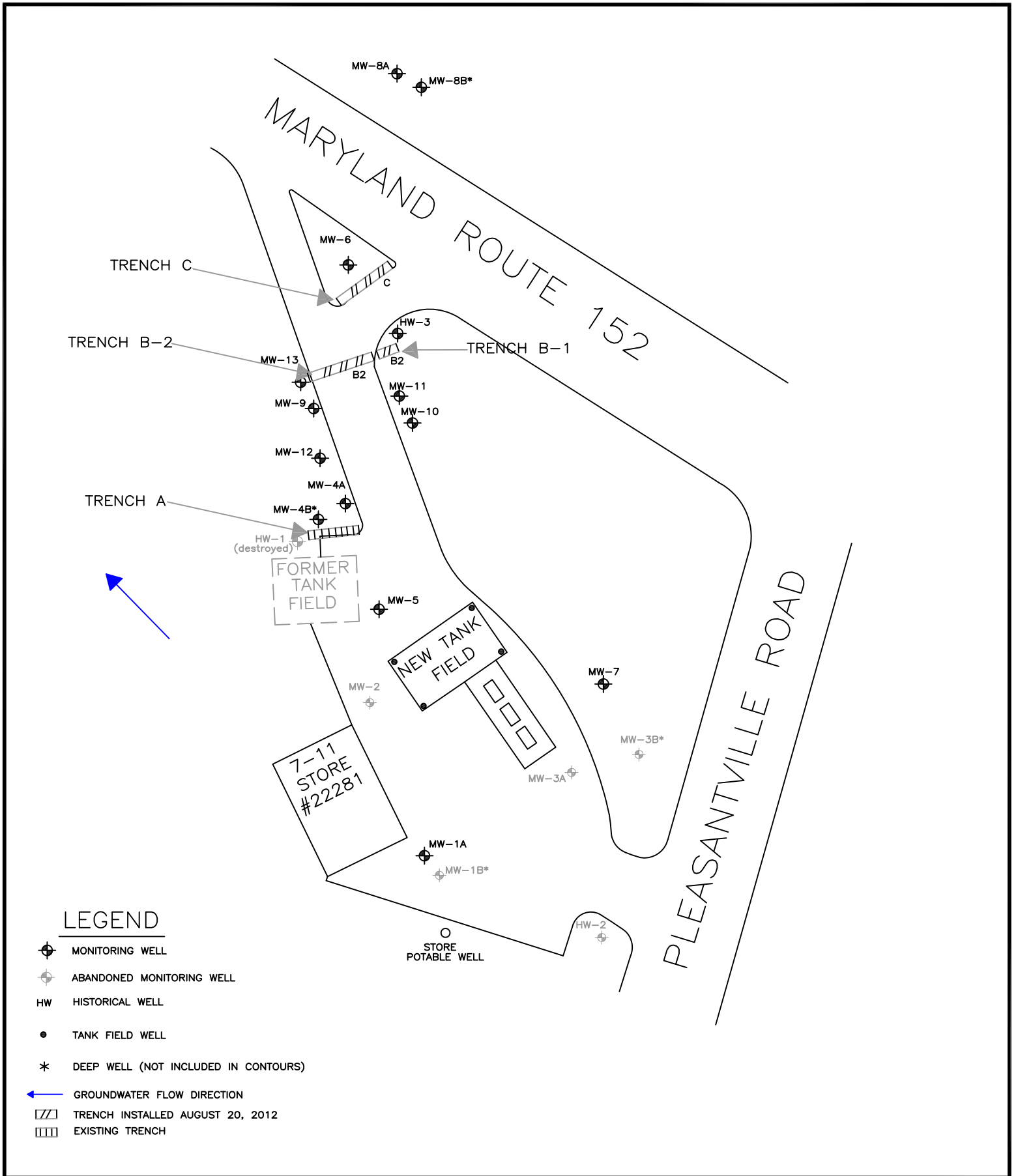
Figure 1 – Site Map

Attachment A – MDE Directive Letter

Attachment B – Photograph Log

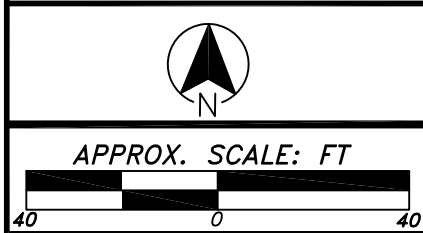
Attachment C – Driller Log Reports

FIGURE 1
Site Map



LEGEND

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



SITE PLAN

July 2014

Drawn By: JLT Reviewed By: SD

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

Project No.: 60144763

FIGURE 1

ATTACHMENT A
MDE Directive Letter



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, ext. 3442

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

Anthony G. Brown
Lieutenant Governor

May 28, 2014

Mr. Jose Rios
Manager, Environmental Services
7-Eleven, Inc.
One Arts Plaza
1722 Routh Street, Suite 1000
Dallas Texas 75201

RE: REMEDIAL UPDATE LETTER
Case No. 2005-0120-HA
Pleasantville 7-Eleven No. 22281
2400 Pleasantville Road, Fallston
Harford County, Maryland
Facility I.D. No. 6375

Dear Mr. Rios:

The Oil Control Program recently completed a review of the *Request for Supplemental Clarification - February 7, 2014* for the above-referenced property. In September 2008, three 12,000-gallon first-generation gasoline underground storage tanks (USTs) were removed. The USTs were subsequently replaced with the existing second-generation gasoline USTs: one 10,000-gallon and one 15,000-gallon. Following UST replacement, a long-term soil vacuum extraction (SVE) pilot test was discontinued. Three bio-augmentation pilot tests have also been implemented at this facility: November 2008 through April 2009 (utilizing a trench for injection of bio-augmentation material); April 2010 through June 2011 (direct injection of bio-augmentation materials into HW-3, MW-4A, MW-9, and MW-10); and September 2012 through June 2013 (utilizing two trench containing injection wells). Although utilization of iSOC® diffusers in the bio-augmentation trench wells was approved for the most recent pilot testing activities (September 2012 through June 2013), to the Department's knowledge, these diffusers were not used.

Currently, there are seventeen on-site and two off-site monitoring wells. Sampling of the monitoring well network in December 2013 detected methyl tertiary-butyl ether (MTBE) at 950 parts per billion (ppb) and total petroleum hydrocarbons – gasoline range organics (TPH-GRO) at 730 ppb. The most recent pre-filtration sample of the on-site drinking water supply well, collected in December 2013, was below regulatory levels for petroleum constituents. Sampling of the off-site supply well at 2414 Pleasantville Road in December 2013 was non-detect for petroleum constituents.

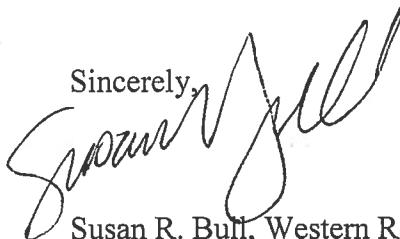
The above-referenced report provides a history of remedial activities at this facility and proposes an additional 9-month pilot test of bio-augmentation materials. A review of historic groundwater sampling data indicates that the contaminant plume has remained within a defined footprint from 2007 and 2013, indicating a stable groundwater plume. In addition, dissolved phase concentration levels of contaminants in the groundwater continue to decrease, indicating that degradation of constituents of concern is occurring. Based on our review, there is insufficient time-series monitored natural attenuation data to determine whether additional bio-augmentation activities would be beneficial in expediting further reduction of the groundwater contaminant plume. Therefore, prior to considering additional bio-augmentation activities, the Department requires completion of the following activities:

- 1) Based on a review of the plume stability assessment, the Department approves removing some of the upgradient monitoring wells from the sampling regime. MW-1B, MW-2, MW-3A, MW-3B, and HW-2 may be properly abandoned. Pursuant to Code of Maryland Regulations 26.04.04.11, a Maryland-licensed well driller must properly abandon the monitoring wells. Upon completion of abandonment activities, provide copies of the well abandonment reports to both the Oil Control Program (Attn: Ms. Jeannette DeBartolomeo) and the Harford County Health Department (Attn: Ms. Cari Bisco).
- 2) Continue quarterly (every three months) monitoring of subsurface conditions for dissolved oxygen, nitrogen, sulfur, iron, and methane to determine the progress of natural attenuation in the subsurface. Without at least one year of this crucial time-series data to assist in evaluating the effectiveness of bio-augmentation activities to date, the Department will not consider additional bio-augmentation pilot testing at the facility.
- 3) Continue quarterly (every three months) sampling of all monitoring wells and tank field monitoring pipes. All samples collected must be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and for TPH-GRO using EPA Method 8015.
- 4) Sampling of the on-site drinking water supply well and the supply well at 2414 Pleasantville Road may be conducted on an annual basis. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2. If a granular activated carbon filtration system is present, samples must be collected pre-, mid-, and post-filtration. Copies of the sampling results must be submitted to the property owner, the Harford County Health Department, and the Oil Control Program.
- 5) **No later than 45 days following a sampling event**, the Department expects to receive a report detailing the results (e.g., on a quarterly basis). Submit quarterly reports in a timely manner detailing the results of the sampling events. When submitting sampling results, include detailed data summary tables and scaled site maps showing actual sampling locations. In the discussion of supplemental sampling events, include details on sampling procedures and describe analytical results in terms of media sampled. Reports must include groundwater surface contours and dissolved phase concentration maps indicating benzene, total BTEX, MTBE, and TPH-GRO concentrations. If liquid phase hydrocarbons (LPH) are encountered, the reports must include LPH thickness map(s) and a summary of LPH recovery volumes. Monitored natural attenuation sampling data must also be included in the tabulated summaries.

Mr. Jose Rios
Case No. 2005-0120-HA
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Notify the Oil Control Program at least five (5) working days prior to beginning any work on-site or off-site. When submitting documentation to the Oil Control Program, reference Case No. 2005-0120-HA and provide three hard copies and an electronic copy on a labeled compact disc (CD) to the attention of the case manager at the above letterhead address. If you have any questions, please contact the case manager, Ms. Jeannette DeBartolomeo, at 410-537-3427 (jeannette.debartolomeo@maryland.gov) or me at 410-537-3499 (susan.bull@maryland.gov).

Sincerely,



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

JD/nln

cc: Ms. Marie Treiber (AECOM)
Ms. Cari Bisco (Harford County Health Dept.)
Mr. Andrew Miller
Mr. Christopher H. Ralston
Mr. Horacio Tablada

ATTACHMENT B

Photograph Log

PHOTOGRAPHIC LOG


Client Name: 7-Eleven Inc.		Site Location: 2400 Pleasantville Road, Fallston, MD	Project No.: 60144763
Photo No.: 1	Date: 6/30/14		
Direction Photo Taken: NA			
Description: MW-1B before abandonment.			

Photo No.: 2	Date: 6/30/14		
Direction Photo Taken: NA			
Description: MW-1B after abandonment.			

PHOTOGRAPHIC LOG

Client Name: 7-Eleven Inc.		Site Location: 2400 Pleasantville Road, Fallston, MD	Project No.: 60144763
Photo No.: 3	Date: 6/30/14		
Direction Photo Taken: NA			
Description: MW-3A before abandonment.			

Photo No.: 4	Date: 6/30/14		
Direction Photo Taken: NA			
Description: MW-3A after abandonment.			

PHOTOGRAPHIC LOG

Client Name:
7-Eleven Inc.

Site Location:
2400 Pleasantville Road, Fallston, MD

Project No.
60144763

Photo No.
5

Date:
6/30/14

Direction Photo Taken:

NA

Description:

MW-3B before abandonment.



Photo No.
6

Date:
6/30/14

Direction Photo Taken:

NA

Description:

MW-3B after abandonment.



PHOTOGRAPHIC LOG

Client Name:
7-Eleven Inc.

Site Location:
2400 Pleasantville Road, Fallston, MD

Project No.
60144763

Photo No.
7

Date:
6/30/14

Direction Photo Taken:

NA

Description:

MW-2 before abandonment.



Photo No.
8

Date:
6/30/14

Direction Photo Taken:

NA

Description:

MW-2 after abandonment.



PHOTOGRAPHIC LOG



Client Name: 7-Eleven Inc.		Site Location: 2400 Pleasantville Road, Fallston, MD	Project No.: 60144763
Photo No.: 9	Date: 6/30/14		
Direction Photo Taken: NA			
Description: HW-2 before abandonment.			

Photo No.: 10	Date: 6/30/14		
Direction Photo Taken: NA			
Description: HW-2 after abandonment.			

ATTACHMENT C
Driller Log Reports

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
 1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 6/30/14 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) _____

* PERMIT NUMBER OF REPLACEMENT WELL: _____

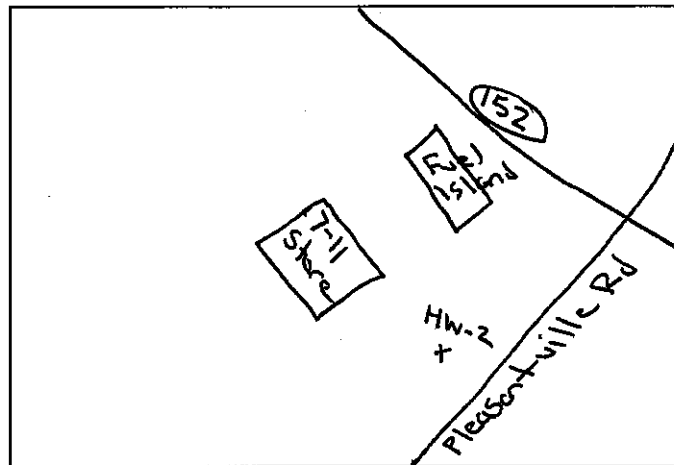
* PERSON ABANDONING WELL: Kevin P Weigle WELL DRILLER'S LICENSE NUMBER: 552
 CIRCLE: MWD / MSD / MGD

* OWNER'S NAME: Kevin P Weigle

* WELL LOCATION:
 COUNTY: Harford
 NEAREST TOWN: Fallston
 TAX MAP 0047 BLOCK _____ PARCEL 0199
 SUBDIVISION: 0000
 SECTION: _____ LOT: 1
 STREET ADDRESS: 2400 Pleasantville Rd

LATITUDE 39.531594
 LONGITUDE 76.446561

SITE LOCATION MAP



* TYPE OF WELL BEING ABANDONED:
 DRILLED _____ JETTED _____
 _____ BORED _____ HAND DUG _____
 _____ OTHER (specify) _____

* USE CODE: DOMESTIC _____ MUNICIPAL/PUBLIC _____
 _____ IRRIGATION _____ INDUSTRIAL _____
 TEST/OBSERVATION _____ GEOTHERMAL _____

* TYPE OF CASING:
 _____ STEEL _____
 PLASTIC _____
 _____ CONCRETE _____ OTHER (specify) _____

SIZE OF CASING: 4 INCHES IN DIAMETER

DEPTH OF WELL: 20 FEET DEEP

WAS ANY CASING REMOVED? YES _____ NO
 If yes, length removed, in feet: 2

WAS CASING RIPPED OR PERFORATED? _____ YES NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
surface patch	0	.5
Cement/ bentonite grout	.5	20
VOLUME OF MATERIAL USED		
125 lbs portland cement 6 lbs benseal 9 gallons water		

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 6/30/14 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) _____

* PERMIT NUMBER OF REPLACEMENT WELL: _____

* PERSON ABANDONING WELL: Kevin P Weigle WELL DRILLER'S LICENSE NUMBER: 552

* OWNER'S NAME: Kevin P Weigle CIRCLE: W/D MSD / MGD

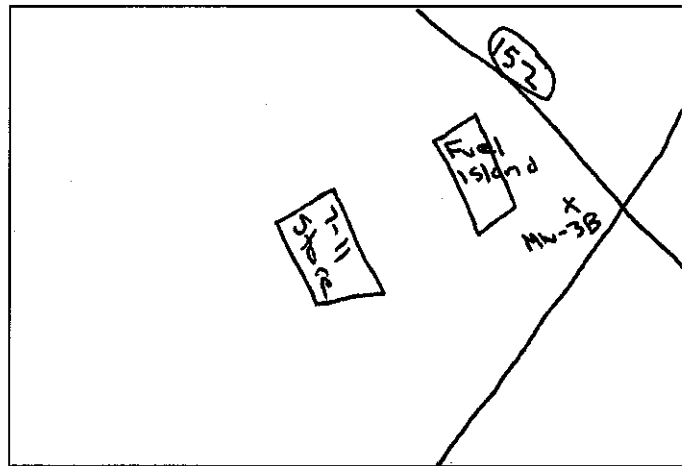
* WELL LOCATION:

COUNTY: Harford
 NEAREST TOWN: Fallston
 TAX MAP 0047 BLOCK _____ PARCEL 0199
 SUBDIVISION: 0000
 SECTION: _____ LOT: 1
 STREET ADDRESS: 2400 Pleasantville Rd

LATITUDE 39.531802

LONGITUDE 76.446648

SITE LOCATION MAP



* TYPE OF WELL BEING ABANDONED:

DRILLED _____ JETTED
 BORED _____ HAND DUG
 _____ OTHER (specify) _____

* USE CODE: DOMESTIC

_____ IRRIGATION _____ MUNICIPAL/PUBLIC
 TEST/OBSERVATION _____ INDUSTRIAL
 _____ _____ GEOTHERMAL

* TYPE OF CASING:

_____ STEEL _____ PLASTIC
 _____ CONCRETE _____ OTHER (specify) _____

SIZE OF CASING: 4 INCHES IN DIAMETER

DEPTH OF WELL: 80 FEET DEEP

WAS ANY CASING REMOVED? YES _____ NO
 If yes, length removed, in feet: 2

WAS CASING RIPPED OR PERFORATED? _____ YES NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Surface Patch	0	.5
cement / bentonite grout	.5	80
VOLUME OF MATERIAL USED		
501 lbs portland cement 25 lbs bentonite 32 gallons water		

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 6/30/14 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) _____

* PERMIT NUMBER OF REPLACEMENT WELL: _____

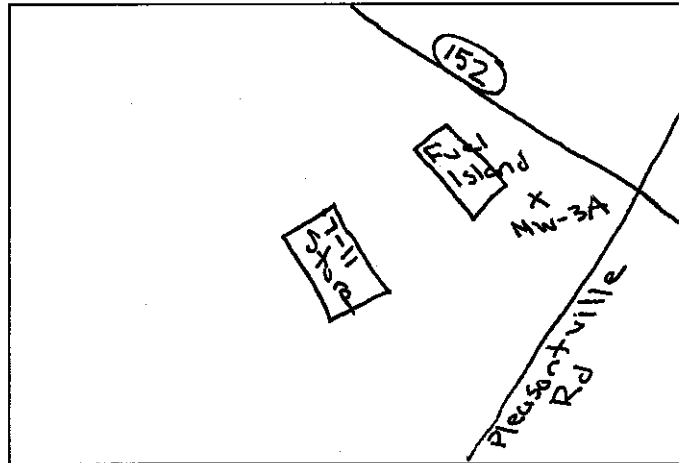
* PERSON ABANDONING WELL: Kevin P Weigle WELL DRILLER'S LICENSE NUMBER: 552

* OWNER'S NAME: _____

WELL DRILLER'S LICENSE NUMBER: 552
 CIRCLE: MWD / MSD / MGD
Kevin P Weigle

* WELL LOCATION:
 COUNTY: Harford
 NEAREST TOWN: Fallston
 TAX MAP 0047 BLOCK _____ PARCEL 0199
 SUBDIVISION: 0000
 SECTION: _____ LOT: 1
 STREET ADDRESS: 2400 Pleasantville Rd

SITE LOCATION MAP



LATITUDE 39.531802

LONGITUDE 76.446649

* TYPE OF WELL BEING ABANDONED:
 DRILLED _____ JETTED
 _____ BORED _____ HAND DUG
 _____ OTHER (specify) _____

LOG OF SEALING MATERIAL

* USE CODE: DOMESTIC _____ MUNICIPAL/PUBLIC
 _____ IRRIGATION _____ INDUSTRIAL
 TEST/OBSERVATION _____ GEOTHERMAL

* TYPE OF CASING:
 _____ STEEL _____ PLASTIC
 _____ CONCRETE _____ OTHER (specify) _____

MATERIAL	FEET	
	FROM	TO
Surface patch	0	.5
Cement / bentonite grout	.5	30

SIZE OF CASING: 4 INCHES IN DIAMETER

DEPTH OF WELL: 30 FEET DEEP

WAS ANY CASING REMOVED? YES _____ NO
 If yes, length removed, in feet: 2

WAS CASING RIPPED OR PERFORATED? _____ YES NO

VOLUME OF MATERIAL USED

188 lbs portland cement
10 lbs bentonite
12 gallons water

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 6/30/14 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) _____

* PERMIT NUMBER OF REPLACEMENT WELL: _____

* PERSON ABANDONING WELL: Kevin P Weigle WELL DRILLER'S LICENSE NUMBER: 552
 CIRCLE: MWD / MSD / MGD

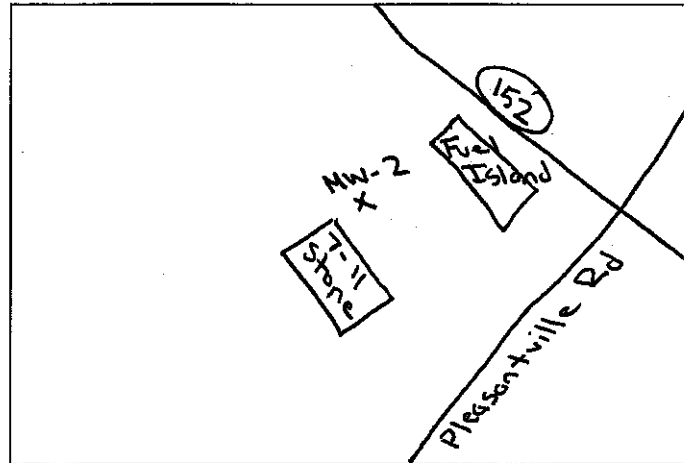
* OWNER'S NAME: Kevin P Weigle

* WELL LOCATION:

COUNTY: Harford
 NEAREST TOWN: Fallston
 TAX MAP 0047 BLOCK _____ PARCEL 0199
 SUBDIVISION: 0000
 SECTION: _____ LOT: 1
 STREET ADDRESS: 2400 Pleasantville Rd

LATITUDE 39.531985
 LONGITUDE 76.446952

SITE LOCATION MAP



* TYPE OF WELL BEING ABANDONED:
 DRILLED JETTED
 BORED HAND DUG
 OTHER (specify) _____

* USE CODE: DOMESTIC _____ MUNICIPAL/PUBLIC _____
 IRRIGATION _____ INDUSTRIAL _____
 TEST/OBSERVATION _____ GEOTHERMAL _____

* TYPE OF CASING:
 STEEL PLASTIC
 CONCRETE _____ OTHER (specify) _____

SIZE OF CASING: 4 INCHES IN DIAMETER

DEPTH OF WELL: 31 FEET DEEP

WAS ANY CASING REMOVED? YES _____ NO
 If yes, length removed, in feet: 2

WAS CASING RIPPED OR PERFORATED? _____ YES NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Surface Patch	0	.5
Cement / Bentonite Grout	.5	31
VOLUME OF MATERIAL USED		
195 lbs portland cement 10 lbs bentonite 12 gallons water		

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
 1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 6/30/14 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) MW-1B

* PERMIT NUMBER OF REPLACEMENT WELL:

* PERSON ABANDONING WELL: Kevin P Weigle

WELL DRILLER'S LICENSE NUMBER: 552

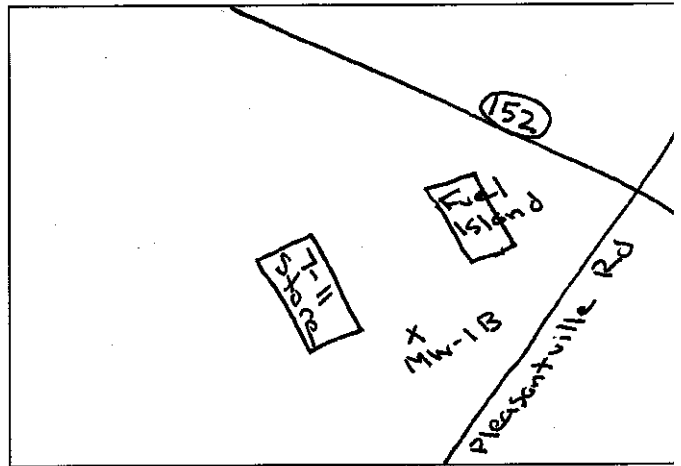
CIRCLE: (MWD) / MSD / MGD

* OWNER'S NAME: _____

Kevin P Weigle

SITE LOCATION MAP

* WELL LOCATION:
 COUNTY: Harford
 NEAREST TOWN: Fallston
 TAX MAP 0047 BLOCK _____ PARCEL 0199
 SUBDIVISION: 0000
 SECTION: _____ LOT: 1
 STREET ADDRESS: 2400 Pleasantville Rd



LATITUDE 39.531682

LONGITUDE 76.446839

* TYPE OF WELL BEING ABANDONED:

DRILLED _____ JETTED
 _____ BORED _____ HAND DUG
 _____ OTHER (specify) _____

* USE CODE: DOMESTIC

_____ IRRIGATION _____ MUNICIPAL/PUBLIC
 TEST/OBSERVATION _____ INDUSTRIAL
 _____ _____ GEOTHERMAL

* TYPE OF CASING:

STEEL _____ PLASTIC
 _____ CONCRETE _____ OTHER (specify) _____

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 81 FEET DEEP

WAS ANY CASING REMOVED? YES _____ NO

If yes, length removed, in feet: 2

WAS CASING RIPPED OR PERFORATED? _____ YES NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Surface patch	0	1.5
Cement / Bentonite Grout	1.5	81
VOLUME OF MATERIAL USED		
1015 lbs portland cement 50 lbs benseal 65 gallons water		