

<b>C 1</b> <div style="border: 1px solid black; padding: 2px; display: inline-block;">05919</div>	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND</b> <b>WELL COMPLETION REPORT</b> FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.																																												
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		COUNTY NUMBER																																													
ST/CO USE ONLY DATE Received MM <u>03</u> DD <u>09</u> YY <u>13</u>	DATE WELL COMPLETED MM <u>3</u> DD <u>27</u> YY <u>13</u>	Depth of Well <u>100</u> (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>H0 - 95 - 2465</u>																																												
OWNER <u>Toll Brothers</u> WELL SITE ADDRESS <u>4804 River Crossing</u> TOWN <u>ELLICOTT CITY</u> SUBDIVISION <u>HomeWood Crossing</u> SECTION <u>73</u> LOT <u>73</u>																																															
<b>WELL LOG</b> Not required for driven wells STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		<b>GROUTING RECORD</b> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> BENTONITE CLAY <input type="checkbox"/> NO. OF BAGS <u>21</u> NO. OF POUNDS <u>1794</u> GALLONS OF WATER <u>126</u> DEPTH OF GROUT SEAL (to nearest foot) from <u>0</u> TOP <u>52</u> ft. to <u>52</u> BOTTOM <u>58</u> ft. (enter 0 if from surface)																																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DESCRIPTION (Use additional sheets if needed)</th> <th colspan="2">FEET</th> <th rowspan="2">check if water bearing</th> </tr> <tr> <th>FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr> <td>Brown</td> <td>0</td> <td>27</td> <td></td> </tr> <tr> <td>Loamy</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dark Brown</td> <td>27</td> <td>30</td> <td>✓</td> </tr> <tr> <td>Light Brown</td> <td>30</td> <td>47</td> <td>✓</td> </tr> <tr> <td>Gray Limestone</td> <td>47</td> <td>85</td> <td>✓</td> </tr> <tr> <td>White Brown</td> <td>85</td> <td>80</td> <td>✓</td> </tr> <tr> <td>Gray Limestone</td> <td>86</td> <td>100</td> <td>✓</td> </tr> </tbody> </table>		DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing	FROM	TO	Brown	0	27		Loamy				Dark Brown	27	30	✓	Light Brown	30	47	✓	Gray Limestone	47	85	✓	White Brown	85	80	✓	Gray Limestone	86	100	✓	<b>CASING RECORD</b> casing types insert appropriate code below <table style="width:100%;"> <tr> <td style="text-align: center;"><b>ST</b> STEEL</td> <td style="text-align: center;"><b>CO</b> CONCRETE</td> </tr> <tr> <td style="text-align: center;"><b>PL</b> PLASTIC</td> <td style="text-align: center;"><b>OT</b> OTHER</td> </tr> </table> <table style="width:100%;"> <tr> <td style="width:33%;">MAIN CASING TYPE <u>PL</u></td> <td style="width:33%;">Nominal diameter top (main) casing (nearest inch) <u>06</u></td> <td style="width:33%;">Total depth of main casing (nearest foot) <u>55</u></td> </tr> <tr> <td style="text-align: center;">60 61</td> <td style="text-align: center;">63 64</td> <td style="text-align: center;">66 70</td> </tr> </table> OTHER CASING (if used) diameter inch depth (feet) from to EACH CASING _____		<b>ST</b> STEEL	<b>CO</b> CONCRETE	<b>PL</b> PLASTIC	<b>OT</b> OTHER	MAIN CASING TYPE <u>PL</u>	Nominal diameter top (main) casing (nearest inch) <u>06</u>	Total depth of main casing (nearest foot) <u>55</u>	60 61	63 64	66 70
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NUMBER OF UNSUCCESSFUL WELLS: _____ WELL HYDROFRACTURED yes <input checked="" type="checkbox"/> no <input type="checkbox"/> CIRCLE APPROPRIATE LETTER <b>A</b> A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED <b>E</b> ELECTRIC LOG OBTAINED <b>P</b> TEST WELL CONVERTED TO PRODUCTION WELL I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE. DRILLERS LIC. NO. <u>M 3 D 009</u> DRILLERS SIGNATURE <u>Allen Wright</u> (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. <u>D</u>		<b>SCREEN RECORD</b> screen type or open hole insert appropriate code below <table style="width:100%;"> <tr> <td style="text-align: center;"><b>ST</b> STEEL</td> <td style="text-align: center;"><b>BR</b> BRASS</td> <td style="text-align: center;"><b>HO</b> OPEN HOLE</td> </tr> <tr> <td style="text-align: center;"><b>PL</b> PLASTIC</td> <td style="text-align: center;"><b>OT</b> OTHER</td> <td></td> </tr> </table> <b>C 2</b> DEPTH (nearest ft.) <table style="width:100%;"> <tr> <td style="width:33%;">1 <u>HO</u></td> <td style="width:33%;">2 <u>55</u></td> <td style="width:33%;">3 <u>100</u></td> </tr> <tr> <td style="text-align: center;">8 9 11</td> <td style="text-align: center;">15 17</td> <td style="text-align: center;">21</td> </tr> <tr> <td style="width:33%;">4 <u>23</u></td> <td style="width:33%;">5 <u>24</u></td> <td style="width:33%;">6 <u>26</u></td> </tr> <tr> <td style="text-align: center;">23 24 26</td> <td style="text-align: center;">30 32</td> <td style="text-align: center;">36</td> </tr> <tr> <td style="width:33%;">7 <u>38</u></td> <td style="width:33%;">8 <u>39</u></td> <td style="width:33%;">9 <u>41</u></td> </tr> <tr> <td style="text-align: center;">38 39 41</td> <td style="text-align: center;">45 47</td> <td style="text-align: center;">51</td> </tr> </table> SLOT SIZE 1 _____ 2 _____ 3 _____ DIAMETER OF SCREEN (NEAREST INCH) <u>56</u> from <u>60</u> to _____		<b>ST</b> STEEL	<b>BR</b> BRASS	<b>HO</b> OPEN HOLE	<b>PL</b> PLASTIC	<b>OT</b> OTHER		1 <u>HO</u>	2 <u>55</u>	3 <u>100</u>	8 9 11	15 17	21	4 <u>23</u>	5 <u>24</u>	6 <u>26</u>	23 24 26	30 32	36	7 <u>38</u>	8 <u>39</u>	9 <u>41</u>	38 39 41	45 47	51																				
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SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 <u>68</u> MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T _____ (E.R.O.S.) W Q _____ 70 _____ 72 _____ 74 75 76 _____ TELESCOPE CASING LOG INDICATOR OTHER DATA																																													

**C 3**  
**PUMPING TEST**  
 HOURS PUMPED (nearest hour) 03  
 PUMPING RATE (gal. per min.) 8.5  
 METHOD USED TO MEASURE PUMPING RATE 190L  
 WATER LEVEL (distance from land surface)  
 BEFORE PUMPING 27 ft.  
 WHEN PUMPING 29 ft.  
 TYPE OF PUMP USED (for test)  
**A** air **P** piston **T** turbine  
**C** centrifugal **R** rotary **O** other (describe below)  
**J** jet **S** submersible  
  
**PUMP INSTALLED**  
 DRILLER INSTALLED PUMP YES ☒ NO ☐  
 (CIRCLE) (YES or NO)  
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.  
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. 29  
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 36  
 PUMP HORSE POWER 37 41  
 PUMP COLUMN LENGTH (nearest ft.) 43 47  
 CASING HEIGHT (circle appropriate box and enter casing height)  
☒ above ☐ below 02 (nearest foot)  
 LAND SURFACE 50 51  
 LATITUDE 39.2387123  
 LONGITUDE 76.9047775  
 (DEFAULT COORD. WGS 84)  
 NOTES:

B 1	09364	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type <u>544471-D</u>	STATE PERMIT NUMBER <u>H0-95-2465</u> <small>fill in this form completely</small>
Date Received (APA) <u>12/19/12</u>		OWNER INFORMATION		
8 MM DD YY 13				
15 Last Name		Owner		34 First Name
<u>Toll Brothers</u>				
36 Street or RFD		55		
<u>11423 Hunt Crossing Ct</u>				
57 Town		70 State	72 Zip	76
<u>Ellicott City, Md 21043</u>				
DRILLER INFORMATION				
Driller's Name		76 License No.		81
<u>Allen Compton</u>		<u>MSD 009</u>		
Firm Name				
<u>Eagles Well Drilling, LLC</u>				
Address				
<u>P.O. Box 203, Woodbine, Md 21797</u>				
Signature		Date		
<u>Allen Compton</u>		<u>12-6-12</u>		
B 2		WELL INFORMATION		
1 2		APPROX. PUMPING RATE (GAL. PER MIN.)		
		<u>5</u>		
		8	12	
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)				
		14	20	
		<u>500</u>		
USE FOR WATER (CIRCLE APPROPRIATE BOX)				
<input checked="" type="radio"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION				
<input type="radio"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)				
<input type="radio"/> INDUSTRIAL, COMMERCIAL, DEWATERING				
<input type="radio"/> PUBLIC WATER SUPPLY WELL				
<input type="radio"/> TEST, OBSERVATION, MONITORING				
<input type="radio"/> OPEN LOOP GEOTHERMAL				
<input type="radio"/> CLOSED LOOP GEOTHERMAL				
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL				
COUNTY NAME		COUNTY NO.		
<u>Howard</u>		<u>13</u>		
STATE SIGNATURE		INSERT S		41
DATE ISSUED		CO SIGNATURE		EXP. DATE
<u>1/18/13</u>		<u>Kim A. Vail</u>		<u>1/18/14</u>
43 MM DD YY 48				
APPROXIMATE DEPTH OF WELL <u>300</u> FEET				
APPROXIMATE DIAMETER OF WELL <u>6</u> INCH				
METHOD OF DRILLING (circle one)				
BORED (or Augered) JETTED Jetted & DRIVEN				
<input checked="" type="radio"/> AIR-ROTARY <input type="radio"/> AIR-PERCussion <input type="radio"/> ROTARY (Hydraulic Rotary)				
<input checked="" type="radio"/> CABLE <input type="radio"/> REVerse-ROTary <input type="radio"/> Drive-POINT				
other _____				
REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)				
<input checked="" type="radio"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL				
<input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED				
<input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS				
<input type="radio"/> THIS WELL WILL DEEPEIN AN EXISTING WELL				
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52				
Not to be filled in by driller (MDE OR COUNTY USE ONLY)				
APPROX. PERMIT NUMBER <u>H0-2003-G-006</u>				
PERMIT No. <u>H0-95-2465</u>				
70 71 72 73 74 75 76 77 78 79				
SPECIAL CONDITIONS				
NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED				
<u>*See Attached Memo</u>				

B 3		LOCATION OF WELL	
8 COUNTY		21	
<u>Howard</u>			
23 SUBDIVISION		42	
<u>Homewood Crossing</u>			
SECTION		LOT	
<u>44 46</u>		<u>73</u>	
52 NEAREST TOWN		71	
<u>Ellicott City</u>			

B 4		SOURCES OF DRILLING WATER	
1.		11 STREET ADDRESS	
2.		80	
3.			
		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
		<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">NORTH W E</div> <div style="text-align: center;">SOUTH W E</div> </div>	
		34 50 37	
		DISTANCE FROM ROAD	
		ENTER FT OR MI 38 39	
		TAX MAP: <u>0029</u> BLK: <u>0009</u> PARCEL: <u>0028</u>	

COUNTY NAME		COUNTY NO.	
<u>Howard</u>		<u>13</u>	
STATE SIGNATURE		INSERT S	
DATE ISSUED		EXP. DATE	
<u>1/18/13</u>		<u>1/18/14</u>	
43 MM DD YY 48			

PROPOSED LOCATION OF WELL ON LOT  
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL

Notes @ 3/27/13  
55' of casing  
21 bags of grout  
hit bedrock @ 50'  
5' of casing into bedrock  
depth of well = 100'  
hit water @ 76' & 82'  
two fractures @ 31' & 43'

Radium, TDS, Chlorides, Sodium Samples  
taken @ yield test

Well Permit No. HO - 95-2465  
Location of property (road) 4804 River Crossing Ct.  
Subdivision Hempstead Crossing Lot 73 Block      Plat      Sec.       
Well Driller Fogles Owner Toll Brothers

Depth of well 100'  
Distance of measuring point (M.P.) above ground 2'  
Static water level (S.W.L.) below M.P. 27'

Time pump started 12:00 Pumping rate 8.5  
Total time 15 min to reach pumping water level 29 ft. below M.P.

[illegible]



Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
Main: 410-313-2640 | Fax: 410-313-2648  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)  
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

## MEMORANDUM

TO: Fogle's Well Drilling  
ATTN: Theresa  
Allen Compton MWD

FROM: Kevin M. Wolf, R.S., R.E.H.S. *Kmw*  
Well and Septic Program  
Groundwater Management Section

RE: ***Homewood Crossing Lots 70, 71, 73, 75, 76, 78, 79 Well Permit Applications: Special Conditions***

DATE: January 17<sup>th</sup>, 2013

The following comments apply to the above referenced Well Permit Applications. Please read through and complete as needed.

In order to preserve the quality of ground drinking water, a special condition has been set for the above referenced lots. This condition requires the driller to seal off the upper strata by placing a certain amount of casing to the approximate depth below the very first water-bearing fracture OR a minimum of 75 feet (which ever comes first). For example, if you hit a water-bearing fracture at 53 feet, then there should be at least 55 feet of casing or enough casing to get below that fracture. **Any deviations to this condition are to be prior approved by the Health Department.** This will also require sampling at the time of yield test for each well. Sampling will include but not limited to, total dissolved solids, chlorides and sodium.

Homewood Crossing Lots 70, 71, 73, 75, 76, 78, and 79 are located in the Radium area and require testing. This testing will be done during the yield test of each well on each indicated lot. When calling in yields and grouts on such pre-scheduled days, please make a note that a sanitarian will need to be present during the time of the yield test to take the recommended samples.

If you have any questions on this matter, please feel free to call me at any time at 410-313-2645.

KMW  
C.C. Files Lots 70, 71, 73, 75, 76, 78, and 79





State of Maryland  
DHMH-Laboratories Administration  
Division of Environmental Chemistry  
**INORGANICS ANALYTICAL LABORATORY**  
201 W. Preston Street, Baltimore, Maryland 21201  
Robert Myers, Ph.D., Director

## Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH  
7178 COLUMBIA GATEWAY DRIVE  
COLUMBIA, MD 21046

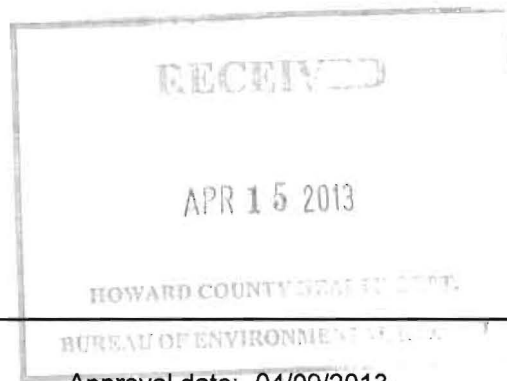
Lab Project No E13004822 Date Coll. 03/27/2013 Date Received: 03/28/2013 Submitted By: R. Rappaport

Field ID: HC 2465  
Lab No.: E13004822001

<u>Analyte</u>	<u>Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
Chloride	SM 4500-Cl E	20	mg/L	03/29/2013
Total Dissolved Solids	SM 2540C	134	mg/L	04/02/2013

OK

### Comments:



Approved by:

*Shahen Aruti*

Approval date: 04/09/2013

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (410) 767-6190 and arrange for return or destruction.



State of Maryland  
DHMH-Laboratories Administration  
Division of Environmental Chemistry  
**TRACE METALS LABORATORY**  
201 W. Preston Street, Baltimore, Maryland 21201  
Robert Myers, Ph.D., Director

## Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH  
7178 COLUMBIA GATEWAY DRIVE  
COLUMBIA, MD 21046

Lab Project No: E13004864 Date Coll.: 03/27/2013 Date Received: 03/28/2013 Submitted By: RAPPAPORT

Field ID: HC 2465  
Lab No.: E13004864001

<u>Method</u>	<u>Element</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
EPA 200.7	Sodium	7.88	ppm	04/17/2013

### Comments:



Approved by: \_\_\_\_\_

*Taijin wei*

Approval date: 04/19/2013

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (410) 767-6944 and arrange for return or destruction.

## DEPARTMENT OF HEALTH AND MENTAL HYGIENE

## Laboratories Administration

201 W. Preston St

P.O. Box 2355, Baltimore, Maryland 21203

Robert A. Myers, Ph. D., Director

## WATER ANALYSIS



E13004822001

Received: 03/28/2013

Inorganic

HC 2465

Howard County Health Department  
Bureau of Environmental Health  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046

SAMPLE	Bottle Number	HC 2465	Name	Homewood Crossing Lot 73	County	Howard	County Code	13																															
	Location	Homewood Crossing, 4804 River Crossing Ct., Ellicott City, Lot 73					Data Category Code	41F																															
ID	Collected: Date	3/27/13	Time	1:30 pm	Collector & Phone	R. Rappaport (410) 313-1781	Submitter Code																																
	CHECK (one per box) <table border="1"> <tr> <td>Drinking Water</td> <td><input checked="" type="checkbox"/></td> <td>Community</td> <td><input type="checkbox"/></td> <td>Source (raw water)</td> <td><input checked="" type="checkbox"/></td> <td>Emergency</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Landfill</td> <td><input type="checkbox"/></td> <td>Non-community</td> <td><input type="checkbox"/></td> <td>Distribution (treated)</td> <td><input type="checkbox"/></td> <td>Routine</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Stream</td> <td><input type="checkbox"/></td> <td>Private</td> <td><input checked="" type="checkbox"/></td> <td>MCL</td> <td><input type="checkbox"/></td> <td>Recheck</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Other</td> <td><input type="checkbox"/></td> <td>Other</td> <td><input type="checkbox"/></td> <td></td> <td></td> <td>Special</td> <td><input type="checkbox"/></td> </tr> </table>								Drinking Water	<input checked="" type="checkbox"/>	Community	<input type="checkbox"/>	Source (raw water)	<input checked="" type="checkbox"/>	Emergency	<input type="checkbox"/>	Landfill	<input type="checkbox"/>	Non-community	<input type="checkbox"/>	Distribution (treated)	<input type="checkbox"/>	Routine	<input checked="" type="checkbox"/>	Stream	<input type="checkbox"/>	Private	<input checked="" type="checkbox"/>	MCL	<input type="checkbox"/>	Recheck	<input type="checkbox"/>	Other	<input type="checkbox"/>	Other	<input type="checkbox"/>			Special
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Other	<input type="checkbox"/>	Other	<input type="checkbox"/>			Special	<input type="checkbox"/>																																
								Federal Project	S																														

FIELD	Plant No.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Sampling Station	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Preservation: Iced	<input checked="" type="checkbox"/>	Acid	<input type="checkbox"/>	Type of Acid	<input type="text"/>
	pH	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Chlorine: Free	<input type="text"/>	<input type="text"/>	Total	<input type="text"/>	<input type="text"/>	Specific Conductance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Notes to Lab/Remarks:															
	Sample taken @ yield test															

[illegible]

\* Results reported in Units, all others in milligrams per liter (ppm)

Number of

### Tests Requested

0	2
---	---

Section Chief

Date \_\_\_\_\_

## Reported

DHH 90-A 7/04

SUBMITTER'S COPY

Send Report To:

Bert Nixon  
Howard County Health Department  
Bureau of Environmental Health  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046

State of Maryland  
DHMH - Laboratories Administration  
Division of Environmental Chemistry  
**ENVIRONMENTAL METALS SECTION**  
201 W. Preston Street, Baltimore, Maryland 21201

Lab No. Date Received



**E13004864001**

Received: 03/28/2013

Metals

HC 2465

### LABORATORY ANALYSIS REQUEST

Please Print

Sample ID No: HC 2465 Site Name: Homewood Crossing Lot 73 County: Howard

Sample Source: 4804 River Crossing Ct. Ellicott City, MD Collector: R. Rappaport  
Street Town or City Name

Date Collected: 3/27/2013 Time Collected: 1:30 a.m. 1:30 p.m. Phone #: 410-313-1781

Sample Preserved By: ☒ Field ☐ ESRL ☐ Central Lab

Preservative Used: ☒ HNO<sub>3</sub> HNO<sub>3</sub> SAY

Sample Type: ☒ Drinking Water ☐ Landfill ☒ Source (Raw Water) ☐ Liquid  
☐ Community ☐ Stream ☐ Distribution (Treated) ☐ Solid  
☐ Non-Community ☐ Sediment ☐ Other \_\_\_\_\_  
☒ Private

Specify Program: ☒ SDWA ☐ NPDES ☐ CWA ☐ RCRA ☐ Consumer Products ☐ Other \_\_\_\_\_

Type of Sample Preparation: ☐ Total Metals ☐ Total Metals TCLP ☐ Dissolved Metals  
(field preparation required)

Remarks: Sample taken @ yield test

✓	Element	Results (ppm)	✓	Element	Results (ppm)
	Antimony (Sb)			Copper (Cu)	
	Arsenic (As)			Lead (Pb)	
	Barium (Ba)			Silver (Ag)	
	Beryllium (Be)			Zinc (Zn)	
	Cadmium (Cd)			Aluminum (Al)	
	Chromium (Cr)			Iron (Fe)	
	Mercury (Hg)			Manganese (Mn)	
	Nickel (Ni)			Calcium (Ca)	
	Selenium (Se)			Magnesium (Mg)	
✓	Sodium (Na)	<u>7.9</u>		Potassium (K)	
	Thallium (Tl)			Uranium (U)	

RECEIVED

Lab Supervisor: \_\_\_\_\_

Date Reported:    /    /   

• Phone: (410) 767-6186

• Fax: (410) 333-5122

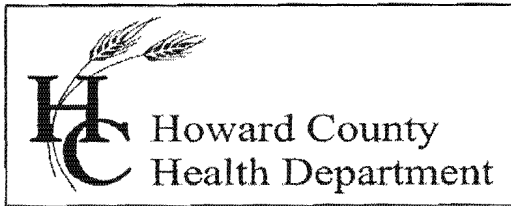
APR 23 2013

DHMH 4432 (7/10)

SUBMITTER'S COPY

HOWARD COUNTY HEALTH DEPT.  
BUREAU OF ENVIRONMENTAL HEALTH





## Bureau of Environmental Health

8930 Stanford Blvd., Columbia, MD 21046-2147

Main: 410-313-1774 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

[www.hchealth.org](http://www.hchealth.org)

Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)

Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

### INTERIM CERTIFICATE OF POTABILITY

Expiration Date – January 14, 2016

July 14, 2016

Homeowner  
4804 Rivercrossing Court  
Ellicott City, MD 21042

**RE: Homewood Crossing, Lot 73**  
**4804 Rivercrossing Court**  
**Building Permit: B15004884**  
**Well Permit: HO-95-2465**

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **6/7/2016**. Final approval of the well line connection to the dwelling was granted on **4/21/2016**. The well construction was completed on **3/27/2013**. Water samples were collected on **7/5/2016**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

Gross Alpha and Beta samples were also collected on **3/27/2013**. Results showed a Gross Alpha level of **2.0 ± 0.0 pCi/L** and **Gross Beta** level of **4.0 ± 0.0 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). At the time of testing and with respect to these parameters, the well water is safe for all uses.

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-2465. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the Annotated Code of Maryland, Environment Article, 9-1311, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:

<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

In closing, please refer to our "Homeowner Fact Sheet" for understanding your Best Available Technology (BAT) for your onsite sewage disposal. You will also find a link to Maryland Department of the Environments website which elaborates in further detail operation and maintenance of your BAT.

Approving Authority,

A handwritten signature in black ink, appearing to read "Kevin M. Wolf", written over a horizontal line.

Kevin M Wolf, L.E.H.S., R.S./REHS, Supervisor  
Groundwater Management Section  
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits  
Community Hygiene Program  
File

**FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.**

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

**REPORT OF ANALYSIS**

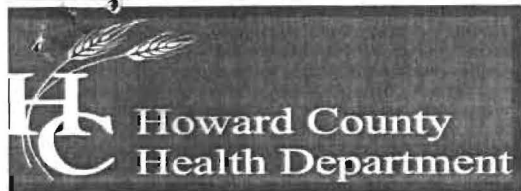
Laboratory ID #: 108323 Account #: 1930  
Reference: Toll Brothers Lot 73 Company: Fogle's Well Drilling  
Location: 4804 Rivercrossing Court Requested By: Dave Fogle  
Ellicott City, MD 21042 Source: Well Water  
Date/ Time Collected: 7/5/2016 1212 Site: Kitchen Sink Tap  
Date/Time Rec'd: 7/5/2016 1520 Treatment: None  
Chlorine ppm: Free: ND Total: ND pH: 6.7  
Collected By: J. Fogle 1974JF Well #: HO-95-2465

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	7/6/2016 / 0945 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	7/6/2016 / 0945 / BCD
Nitrate	<1.0	mg/L	10	601	7/5/2016 / 1545 / CRS
Turbidity	3.61	NTU	<10	SM18 2130B	7/5/2016 / 1620 / CRS
Sand	NS	mg/L	5	Visual/Gravimetric	7/5/2016 / 1620 / CRS

**NOTES**

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NS = None Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 5 pH and chlorine level tested in lab
- 6 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 7 ND:None Detected
- 8 Sample collected by client, analyzed as received
- 9 Visual well check: Sealed, vented cap

**Reason for Test :** Use & Occupancy**Building Permit # :** B15004884Date Reported: 7/6/2016



## Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

[www.hchealth.org](http://www.hchealth.org)

Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)

Maura Rossman, M.D., Health Officer

October 10, 2013

**Toll Brothers Inc.  
Toll MD III Limited Partnership  
7164 Columbia Gateway Drive  
Columbia, Maryland 21046**

**RE: Homewood Crossing Lot 73  
4804 River Crossing Court  
Well Tag: HO - 95 - 2465**

To Whom it May Concern:

A sample was collected during a yield test on March 27, 2013 and submitted to the Department of Health & Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of  $< 2.0 \pm 0.0$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $< 4.0 \pm 0.0$  pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply meets EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. **Please note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions.

Sincerely,

Bert Nixon, Director

Bureau of Environmental Health

Enclosure

cc: Well & Septic property file



Serial Report To:

Bert Nixon  
Howard County Health Department  
Bureau of Environmental Health  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046

State of Maryland  
DHMH - Laboratories Administration  
Division of Environmental Chemistry  
**RADIATION LABORATORY**  
201 W. Preston Street, Baltimore, Maryland 21201  
John M. DeBoy, Dr. P. H., Director

E002143 E282

### LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HC2465 No. B: \_\_\_\_\_ Field Blank Bottle No. 1: HC0000 No B: \_\_\_\_\_

Plant/Site Name: Homewood Crossing - Lot 73 County: Howard

Sample Source: Well - 4804 River Crossing Ct. Location: HO-95-2465  
(well no, lab sink, sample tap, etc.)

County: ☒ 1 ☒ 3 Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

CHECK (one per box)

Drinking Water ☒  
Landfill ☐  
Stream ☐  
Other ☐

Community ☐  
Non-community ☐  
Private ☒  
Other ☐

Source (raw water) ☒  
Distribution (treated) ☐  
MCL ☐

Emergency ☐  
Routine ☒  
Recheck ☐  
Special ☐

Collector: R. Rappaport

Telephone No.: 410-313-1781

Date Collected: 3/27/13 <sup>cont</sup>

Time Collected: \_\_\_\_\_ a.m. 1:30 p.m.

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☒ No ☐

Submitters Code: ☐ ☐

Federal Project: ☒ 5

Field Data: 6.5 0  
pH Chlorine

Remarks: Sample taken @ yield test

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	2143	<2.0	03/31/13	04/01/13
✓	Gross Beta	4100	2143	<4.0	"	"
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: 03/28/13

Supervisor: smx

•Tel. No.: (410) 767 - 5537 •Fax No.: (410) 333- 5373

Send Report To:

Bert Nixon

Howard County Health Department  
Bureau of Environmental Health  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046

State of Maryland  
DHMH - Laboratories Administration  
Division of Environmental Chemistry  
**RADIATION LABORATORY**  
201 W. Preston Street, Baltimore, Maryland 21201  
John M. DeBoy, Dr. P. H., Director

E002142 E282

### LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_ Field Blank Bottle No. 1: HC0000 No B: \_\_\_\_\_

Plant/Site Name: Field Blank HCHD County: Howard

Sample Source: Distilled water Location: Lab  
(well no, lab sink, sample tap, etc.)

County: ☒ 1 ☒ 3 Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

CHECK (one per box)

Drinking Water ☒  
Landfill ☐  
Stream ☐  
Other ☐

Community ☐  
Non-community ☐  
Private ☒  
Other ☐

Source (raw water) ☒  
Distribution (treated) ☐  
MCL ☐

Emergency ☐  
Routine ☒  
Recheck ☐  
Special ☐

Collector: R. Rappaport

Telephone No.: 410-313-1781

Date Collected: 3/27/13 ceus

Time Collected: \_\_\_\_\_ a.m. 4 p.m.

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☒ No ☐

Submitters Code: ☐ ☐

Federal Project: ☒

Field Data: \_\_\_\_\_ pH \_\_\_\_\_ Chlorine \_\_\_\_\_

Remarks: \_\_\_\_\_

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	2142	<2.0	03/31/13	04/01/13
✓	Gross Beta	4100	2142	<4.0	"	"
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: 03/28/13

Supervisor: mev

•Tel. No.: (410) 767-5537 •Fax No.: (410) 333-5373

RECEIVED  
APR 08 2013  
HOWARD COUNTY HEALTH  
BUREAU OF ENVIRONMENTAL HEALTH



DATE: 12/14/2012

DRAWN BY: C.E.R.

CHK'D: M.J.B.

SCALE 1" = 50'



Land Planning  
Engineering  
Land Surveying

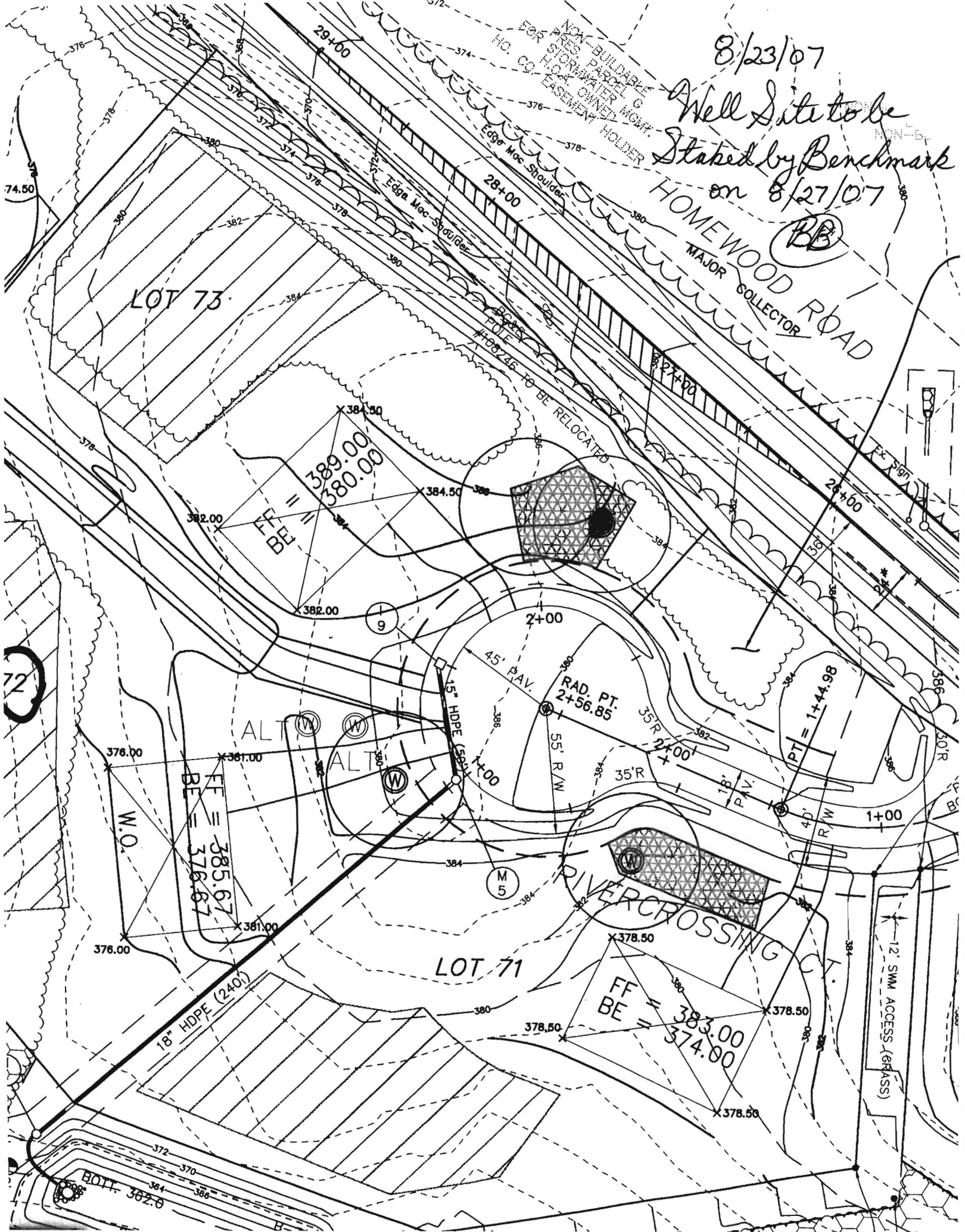
ESE Consultants Inc.  
7164 Columbia Gateway Dr.  
Suite 203  
Columbia, MD 21046  
TEL: 410-872-9105  
FAX: 410-872-4870



Well Site to be  
Staked by Benchmark  
42 on 8/27/07

BB

on 8/27/07  
HOMewood ROAD  
MAJOR COLLECTOR  
BB





1

2

3

6

6136

SEQUENCE NO.  
(MDE USE ONLY)

STATE OF MARYLAND  
APPLICATION FOR PERMIT TO DRILL WELL  
527287 please type

STATE PERMIT NUMBER

40-95-1239  
70 fill in this form completely 79

Date Received (APA)

8 MM DD YY 13

15 Last Name First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

OWNER INFORMATION

1011 Brothers

11423 Hunt Crossing Ct.

Ellicott City Md 21042

DRILLER INFORMATION

Driller's Name 76 License No. 81

Firm Name

Address

Signature Date

LOCATION OF WELL

8 COUNTY 21

23 SUBDIVISION 42

SECTION II LOT 73 44 46 48 50

52 NEAREST TOWN 71

5 MILES FROM TOWN (enter 0 if in town) 73 76 77 78

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

☐ F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

☐ I INDUSTRIAL, COMMERCIAL, DEWATERING

☐ P PUBLIC WATER SUPPLY WELL

☐ T TEST, OBSERVATION, MONITORING

☐ G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 24 28 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)

CABLE REVERSE-ROTary DRIVE-POINT

other

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

☒ N THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS

☐ D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROX. PERMIT NUMBER

PERMIT No.

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD ENTER FT OR MI

TAX MAP: BLK: PARCEL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED

CO SIGNATURE EXP. DATE

NORTH GRID EAST GRID

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

WRITE THE BOX NUMBER FROM THE MAP HERE

E

N

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

DENV-Permit 97

COUNTY

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
WELL & SEPTIC PROGRAM  
TEL: (410)313-1771 FAX: (410)313-2648

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: FOGLE'S WELL DRILLING LLC Telephone #: 410-795-5670  
Address: J PO Box 202  
Woodbine, MD 21797

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): DAVID C. FOGLE License #: MSD 226

\*A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.

Name of Property Owner: Toll Brothers Telephone #: \_\_\_\_\_  
Subdivision: Pennant Chase Lot #: 73 Well Tag #: HO-95-2465V  
Site Address: 4804 Rivercrossing Ct  
Ellicott City, MD

Submersible Pump Data

Make: Grundfos

Model #: 1530EDT-180

Pump Capacity: 15 GPM

Well Yield: 9.5 GPM

Depth of well encountered at time of pump installation: 100' (feet)

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used—Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing N/A

Pitless Adapter

Make: Rampro

Model #: N/A

Depth: 36" (36" min)

NSF/WSC approved: YES

Well Cap and Electric Conduit

Two piece watertight cap: YES

Screened, vented well cap: YES

Cap secured to casing: YES

Conduit min 18" B.G.: YES

Conduit secured to well cap: YES

Piping to house

Type: 1" poly pipe

PSI: 260 (160 psi min)

Depth of supply line: 36" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: YES

Length of sleeve (5' minimum from foundation): 6'

Sleeve sealed properly: YES

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: David Fogle

date: 4-20-16

For Health Department Use Only -- Not to be completed by Installer

Date Insp. Requested: 4/21/16 Date Insp. Approved: 4/21/16 Inspector: SC

Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade ✓  
Two piece cap installed and attached to casing securely ✓  
Elec. conduit extends at least 18" below grade/attached to cap properly ✓  
Safety rope not outside of well cap/casing ✓  
Correct well tag attached properly and casing 8" above finished grade ✓  
Water supply line sleeved adequately at house connection ✓  
Adequate grout observed below pitless adapter ✓

sleeve  
under  
driveway

