

C1 0329

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER 13 A515042

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY DATE Received MM DD YY 8 13

DATE WELL COMPLETED

MM DD YY 6 13 06

Depth of Well

22 150 26 (TO NEAREST FOOT)

9/13/06 O.K. (BB)

PERMIT NO. FROM "PERMIT TO DRILL WELL" 40-95-0285

OWNER Toll Brothers last name first name STREET OR RFD Fox River Drive TOWN Ellicott City SUBDIVISION Benedict Farm SECTION LOT 7

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed) FEET FROM TO check if water bearing

Table with 3 columns: DESCRIPTION, FEET (FROM, TO), and check if water bearing. Rows include 'Brown shale' (0-35) and 'gray limestone' (35-150).

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 16 NO. OF POUNDS 1504 GALLONS OF WATER 96 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 38 ft.

CASING RECORD

casings types insert appropriate code below MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch)! 06 Total depth of main casing (nearest foot) 40

OTHER CASING (if used) diameter inch depth (feet) from to

screen type or open hole insert appropriate code below SCREEN RECORD ST BR HO PL OT

DEPTH (nearest ft.) HO 40 150 A 8 9 11 15 17 21 C 2 23 24 26 30 32 36 R 38 39 41 45 47 51 E SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

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

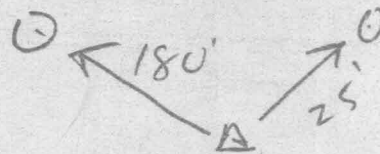
HOURS PUMPED (nearest hour) 03 8 9 PUMPING RATE (gal. per min.) 12 11 15 METHOD USED TO MEASURE PUMPING RATE 1 gal. WATER LEVEL (distance from land surface) BEFORE PUMPING 26 17 20 ft. WHEN PUMPING 34 22 25 ft. TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP YES 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. CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35 PUMP HORSE POWER 37 41 PUMP COLUMN LENGTH (nearest ft.) 43 47 CASING HEIGHT (circle appropriate box and enter casing height) + above - below LAND SURFACE 02 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO N

CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P 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. 1 MSD 009 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OWNER INFORMATION
 Date Received (APA) 03 15 06
 8 MM DD YY 13
 Last Name Toll Brothers Owner First Name _____ 34
 Street or RFD 14324 Triadelphia Rd. 36 55
 Town Glenelg md. State 21 Zip 2137 57 70 72 76

LOCATION OF WELL
 COUNTY Howard 8 21
 SUBDIVISION Benedict Farm 23 42
 SECTION 44 46 LOT 7 48 50
 NEAREST TOWN Columbia 52 71
 MILES FROM TOWN (enter 0 if in town) 3 M I 73 76 77 78

DRILLER INFORMATION
 Driller's Name Allen Compton M S D 009 76 License No. 81
 Firm Name Fogles Well Drilling
 Address 580 obrecht RD
 Signature [Signature] Date 3-14-06

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
 [Map showing directions N, NE, E, SE, S, SW, W, NW with 'TOWN' in center. Box 'N' is circled.]
 NEAR WHAT ROAD Valley View Overlook 11 30
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) [Map showing directions N, S, E, W with 'ROAD' in center. Box 'N' is circled.]
 DISTANCE FROM ROAD 60 FT 34 37 ENTER FT OR MI 38 39
 TAX MAP: 29 BLK: 9 PARCEL 28

WELL INFORMATION
 APPROX. PUMPING RATE 5 GAL. PER MIN. 8 12
 AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY 14 20

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
 COUNTY NAME Howard COUNTY NO. (13) A515042
 STATE SIGNATURE _____ INSERT S → 41
 DATE ISSUED 3/16/2006 CO SIGNATURE Brian Baber EXP. DATE 3/16/2007
 NORTH GRID 510 000 EAST GRID 826 000
 50 55 57 63

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 300 FEET 24 28
 APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
 SOURCES OF DRILLING WATER
 1. gout 6/13/06
 2. X
 3. Rt 108
 WRITE THE BOX NUMBER FROM THE MAP HERE
 E 826 000
 N 510 000

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 DEEPEMED 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 DEEPEM AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION
 [Sketch showing Clarksville Pike, HomeWood Rd, and a north arrow pointing up.]

Not to be filled in by driller (MDE OR COUNTY USE ONLY)
 APPROP. PERMIT NUMBER HO2003G006
 PERMIT No. HO-95-0285
 70 71 72 73 74 75 76 77 78 79

**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: Fogles Well Drilling, LLC Telephone #: 443-609-4195
Address: P.O. 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): Allen Compton License# MSD009

*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 #: 410-992-5978
Subdivision: Homewood Crossing (Relaxant) Lot #: 7 Well Tag #: HO-95-0285
Site Address: 11503 Fox River Dr.
Ellicott City Md.

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Camdell</u>	Two piece watertight cap: <u>yes</u>
Model #: <u>1550607-180</u>	Model#: <u>N/A</u>	Screened, vented well cap: <u>yes</u>
Pump Capacity <u>15</u> GPM	Depth: <u>36"</u> (36" min)	Cap secured to casing: <u>yes</u>
Well Yield: <u>12</u> GPM	NSF/WSC approved: <u>yes</u>	Conduit min 18" B.G.: <u>yes</u>
Depth of well encountered at time of pump installation: <u>150</u> (feet)		Conduit secured to well cap: <u>yes</u>
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 <u>inside of well casing</u> <u>N/A</u>		

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>1" Black Plastic Pipe</u>	PVC sleeve to undisturbed soil at wall penetration: <u>yes</u>
PSI: <u>160</u> (160 psi min)	Length of sleeve (5' minimum from foundation): <u>5'</u>
Depth of supply line: <u>42"</u> (36" min)	Sleeve sealed properly: <u>yes</u>

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: Allen Compton date: 1-13-12

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

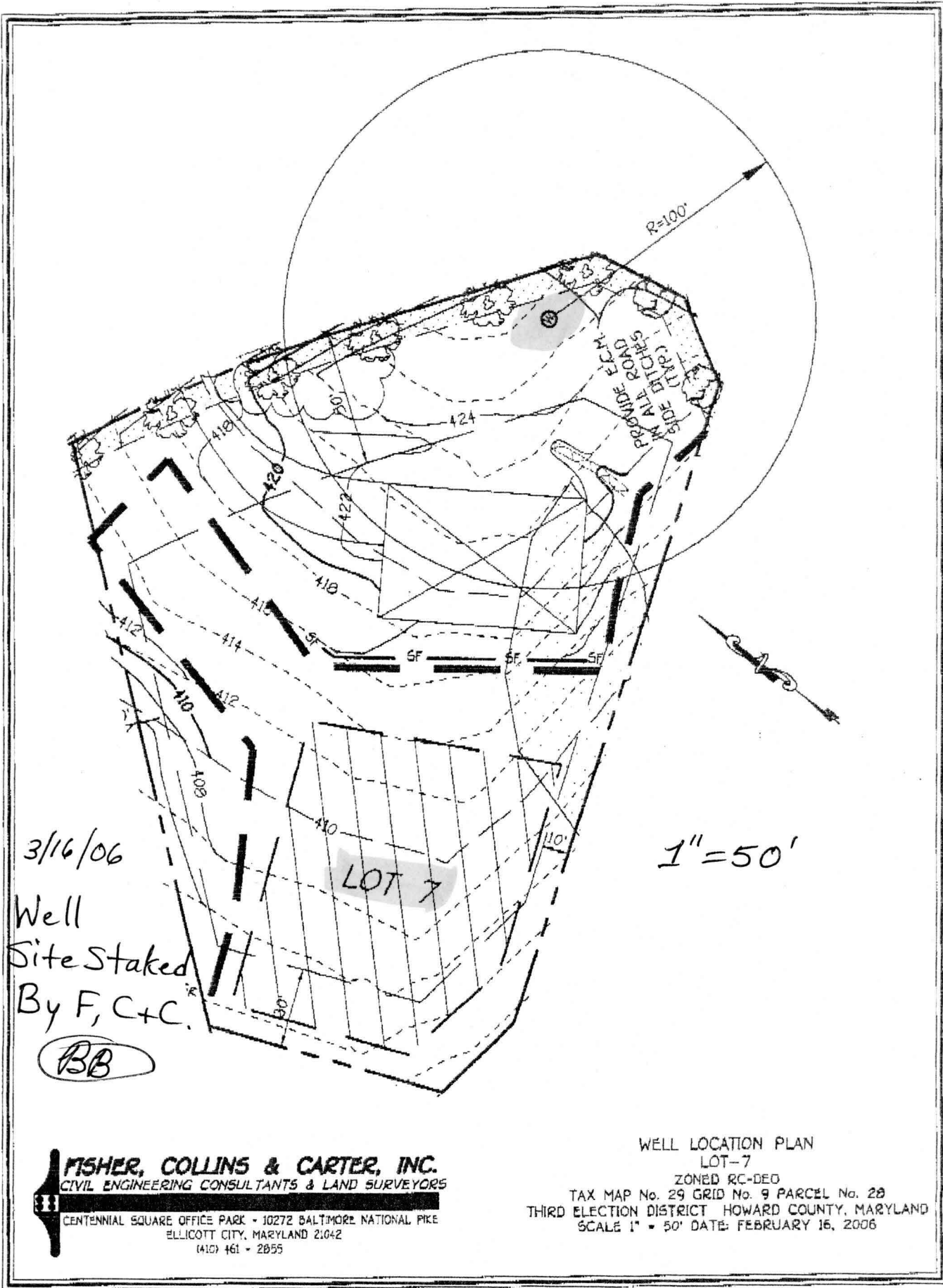
Date Insp. Requested: 1/17/12 Date Insp. Approved: 1/18/12 Inspector: (Kaw)

Inspection Data:

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

Handwritten notes: MSD 2015
JK

K:\SDSKPROJ\30754 Benedict Farm\dwg\PHASE I - FINAL\30754 WELL LOCATION.dwg, 2/17/2006 1:21:28 PM, 1:1



3/16/06
 Well
 Site Staked
 By F, C+C.
 BB

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK • 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461 • 2855

WELL LOCATION PLAN
 LOT-7
 ZONED RC-DEO
 TAX MAP No. 29 GRID No. 9 PARCEL No. 28
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE 1" = 50' DATE: FEBRUARY 16, 2006

Peter L. Beilenson, M.D., M.P.H., Health Officer

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – October 2, 2012

April 5, 2012

Homeowner
11503 Fox River Drive
Ellicott City, Maryland, 21042

**RE: Homewood Crossing, Lot #7
11503 Fox River Drive
Building Permit: B11000210
Well Permit: HO-95-0285**

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 **01/26/2012**. Final approval of the well line connection to the dwelling was granted on **01/18/2012**. The well construction was completed on **06/13/2006**. Water samples were collected on **03/15/2012 and 03/30/2012**.

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.

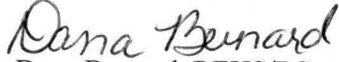
Gross Alpha and Beta samples were also collected on **June 16, 2006**. Results showed a Gross Alpha level of **1.4 ± 0.9 pCi/L** and **Gross Beta** level of **5.0 ± 1.4 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the MCL of 50pCi/L. 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-95-0285. 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>

Approving Authority,



Dana Bernard, REHS/RS
Environmental Sanitarian
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 #: 83830 Account #: 1930
Reference: FWD/ Toll Brothers/ Lot 7 ^{OK} Company: Fogle's Well Drilling
Location: 11503 Fox River Drive ^{DB} Requested By: Dave Fogle
Ellicott City, MD 21042 ⁴⁻⁵⁻¹² Source: Well Water
Date/ Time Collected: 3/30/2012 1253 Site: Kitchen Sink Tap
Date/Time Rec'd: 3/30/2012 1658 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 5.7
Collected By: J. Fogle 1974JF Well #: HO-95-0285

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	3/31/2012 / 1230 / CWM
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	3/31/2012 / 1230 / CWM
Nitrate	5.09	mg/L	10	601	3/30/2012 / 1800 / CWM
Turbidity	0.46	NTU	<10	SM18 2130B	3/30/2012 / 1705 / BMC
Sand	NS	mg/L	5	Visual/Gravimetric	3/30/2012 / 1705 / BMC

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 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND:None Detected
- 7 pH & Chlorine level tested in lab
- 8 Sample collected by client, analyzed as received

Reason for Test : Use & Occupancy

Date Reported: 4/2/2012

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 #: 83631 Account #: 1930
 Reference: ~~Palmer Chase Tuff Brothers Lot 7~~ Company: Fogle's Well Drilling
 Location: ~~11503 Fox River Drive~~ Requested By: Dave Fogle
 Ellicott City, MD 21042 Source: Well Water
 Date/ Time Collected: 3/15/2012 1425 Site: Downstairs Bathroom Sink, Left
 Date/Time Rec'd: 3/15/2012 1930 Treatment: None
 Chlorine ppm: Free: ND Total: ND pH: 6.7
 Collected By: ~~D. Dutcher~~ 4717DD Well #: HO-95-0285

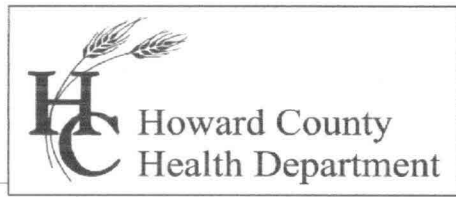
PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	32.4	MPN/ 100 ml	<1.0	SM18 9223	3/16/2012 / 1400 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	3/16/2012 / 1400 / BCD
Nitrate	1.57	mg/L	10	601	3/16/2012 / 1140 / CCH
Turbidity	0.67	NTU	<10	SM18 2130B	3/16/2012 / 1100 / CCH
Sand	NS	mg/L	5	Visual/Gravimetric	3/16/2012 / 1100 / CCH

NOTES

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

Reason for Test : Use & Occupancy
 Building Permit # : B11000210

Date Reported: 3/16/2012



Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

June 26, 2006

**Toll Brothers – Maryland Division
7164 Columbia Gateway Drive
Columbia, Maryland 21046**

**RE: Benedict Farm Subdivision, Lot 7
Well Tag: HO-95-0285**

To Whom It May Concern:

A sample was collected during a yield test on June 16, 2006 and submitted to GPL 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 1.4 ± 0.9 picocuries/liter (pCi/L); while the **Gross Beta** level was 5.0 ± 1.4 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 **MCL** of **50 pCi/L**. At the time of testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing **for these parameters** will be required to secure the future Use & Occupancy. However, other standard (potability) testing will still be necessary.

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 or concerns.

Sincerely,

Bert Nixon, Deputy Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater
Well & Septic property file