

C1 1443 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE

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

1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED MM DD YY

DATE WELL COMPLETED MM DD YY

Depth of Well 22 150 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO - 95 - 1262

OWNER Toll Brothers last name first name STREET OR RFD Independence Way TOWN Columbia SUBDIVISION Homewood Crossing SECTION LOT 52

WELL LOG Not required for driven wells

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

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Rows include: Brown shale (0-59), Gray Limestone (59-150), Dryhole cement (0-70), Rock cuttings (70-400).

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (N) TYPE OF GROUTING MATERIAL (C) (B) NO. OF BAGS 17 NO. OF POUNDS 1578 GALLONS OF WATER 102 DEPTH OF GROUT SEAL (to nearest foot) from 0 TOP 52 ft. to 61 BOTTOM 58 ft.

CASING RECORD

MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch) 06 Total depth of main casing (nearest foot) 67

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

SCREEN RECORD

screen type or open hole (S) (B) (H) (P) (O) DEPTH (nearest ft.) 150

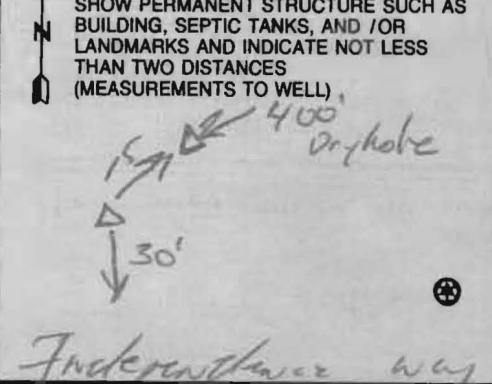
PUMPING TEST

HOURS PUMPED (nearest hour) 03 PUMPING RATE (gal. per min.) 15 METHOD USED TO MEASURE PUMPING RATE 1966 WATER LEVEL (distance from land surface) BEFORE PUMPING 45 ft. WHEN PUMPING 54 ft. TYPE OF PUMP USED (for test) S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES) (NO) 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 LAND SURFACE (-) below 02 (nearest foot) 50 51

LOCATION OF WELL ON LOT



NUMBER OF UNSUCCESSFUL WELLS: 1

WELL HYDROFRACTURED (Y) (N)

- 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...

DRILLERS LIC. NO. 1 M S D 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)

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

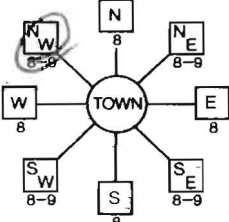

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

70 72 74 75 76 TELESCOPE LOG OTHER DATA CASING INDICATOR

Date Received (APA) \_\_\_\_\_  
**OWNER INFORMATION**  
 8 MM DD YY 13  
 15 Last Name **Toll** Owner **Brothers** First Name 34  
 36 Street or RFD **11423 Hunt Crossing Ct** 55  
 57 Town **Ellicott City Md.** State **MD.** Zip **21042** 76

B 3 LOCATION OF WELL  
 8 COUNTY **Howard** 21  
 23 SUBDIVISION **Homewood Crossing** 42  
 SECTION 44 46 LOT **52** 48 50  
 52 NEAREST TOWN **Columbia** 71  
 MILES FROM TOWN (enter 0 if in town) **5** M I 73 76 77 78

**DRILLER INFORMATION**  
 Driller's Name **Allen Compton** M SD 009 76 License No. 81  
 Firm Name **Fogles Well Drilling**  
 Address **580 Obrecht rd**  
 Signature **[Signature]** Date **7-17-07**

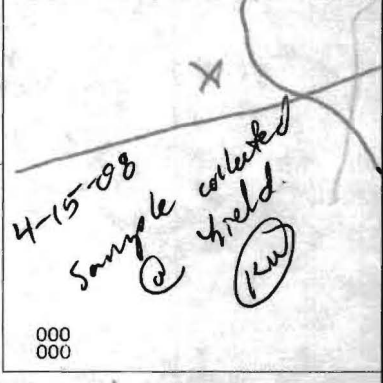
B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)  
  
 11 NEAR WHAT ROAD **Independence Way** 30  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
  
 34 **480** 37 DISTANCE FROM ROAD FT 38 39  
 ENTER FT OR MI 38 39  
 TAX MAP: **29** BLK: **9** PARCEL **28**

B 2 WELL INFORMATION  
 APPROX. PUMPING RATE (GAL. PER MIN.) **5** 8 12  
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) **500** 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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL  
**Howard (13) A515042**  
 COUNTY NAME COUNTY NO.  
 STATE SIGNATURE \_\_\_\_\_ INSERT S → 41  
 DATE ISSUED **9/20/2007** **Bruan Baker** 9/20/2008  
 43 MM DD YY 48 CO SIGNATURE EXP DATE  
 NORTH GRID **510** 0 0 0 EAST GRID **827** 0 0 0  
 50 55 57 63

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

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X  
 SOURCES OF DRILLING WATER  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 WRITE THE BOX NUMBER FROM THE MAP HERE  
 E **8207**  
 N **510**  


**METHOD OF DRILLING** (circle one)  
 BORED (or Augered) JETTED Jetted & DRIVEN  
 30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)  
 37 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

**Not to be filled in by driller** (MDE OR COUNTY USE ONLY)  
 APPROP. PERMIT NUMBER **HO2003G006**  
 PERMIT No. **HO-95-1262**  
 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS **Radium Sample Needed During Yield Test**  
 NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

# Yield Test Data Sheet

County File # \_\_\_\_\_

District \_\_\_\_\_

MD Well Permit #. HO-95-1262

Date of Test: 4-15-08

Subdivision Name: Homewood Crossing

Section \_\_\_\_\_ Lot # 52

Street Address: Independence Way

Measuring Point (MP) Description: Top of casing  
(for ex. "Top of casing")

Distance from MP to ground surface 2 ft.

Well Depth 150 ft.

Well Driller: Fogle's Well Drilling

Must be submitted with the State of Maryland Well Completion Report

Submit to:

Pump Start Time <u>8:00</u>	Static Water level: <u>45</u> ft.	Pumping Rate ( ) Time to fill <u>1</u> gal. bucket ( ) Flow meter reading (if used)	Calculated Flow (gallons per minute) <u>15</u>
TIME	WATER LEVEL BELOW M.P.		

**Water level and pumping rate must be recorded every 15 minutes**

TIME	WATER LEVEL BELOW M.P.	PUMPING RATE	CALCULATED FLOW (GPM)
1 <u>8:00</u>	<u>45</u> ft.	<u>4</u>	<u>15</u> GPM
2 <u>8:15</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
3 <u>8:30</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
4 <u>8:45</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
5 <u>9:00</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
6 <u>9:15</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
7 <u>9:30</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
8 <u>9:45</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
9 <u>10:00</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
10 <u>10:15</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
11 <u>10:30</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
12 <u>10:45</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
13 <u>11:00</u>	<u>54</u> ft.	<u>4</u>	<u>15</u> GPM
14	ft.		GPM
15	ft.		GPM
16	ft.		GPM
17	ft.		GPM
18	ft.		GPM
19	ft.		GPM
20	ft.		GPM
21	ft.		GPM
22	ft.		GPM
23	ft.		GPM
24	ft.		GPM
25	ft.		GPM
26	ft.		GPM
27	ft.		GPM
28	ft.		GPM
29	ft.		GPM
30	ft.		GPM

**NOTES:**

**HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
WATER AND SEWERAGE PROGRAM  
TEL: (410)313-2640 FAX: (410)313-2643**

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 Telephone #: 443-609-4195  
Address: 6003 Woodbine Rd.  
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 direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: Toll Brothers Telephone #: 410-992-5978  
Subdivision: Benedict Farm Lot #: 52 Well Tag #: HO-95-1262  
Site Address: 11235 Independence Way

Submersible Pump Data

Make: Grundfos  
Model #: 15SG609-180  
Pump Capacity 15 GPM  
Well Yield: 15 GPM

Pitless Adapter

Make: Camwell  
Model#: N/A  
Depth: 36 (36" min)  
NSF 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.C.: yes  
Conduit secured to well cap: yes

Depth of well encountered at time of pump installation: 150 (feet)  
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4  
Torque arrestors or Cable guards are required - Must circle one  
Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house

Type: 1" Plastic Pipe  
PSI: 160 (160 psi min)

House Connection

PVC sleeved to undisturbed soil at wall penetration: yes  
Approximate length of sleeve (5 foot minimum): 5

Depth of supply line: 1/2 (36" min) Sleeve caulked and sealed properly: yes

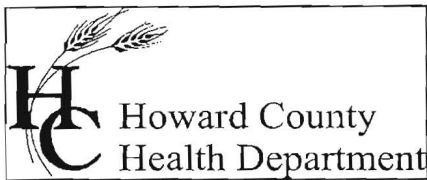
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Allen Compton 10/6/08  
Signature of company representative responsible for installation date

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

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: 8/18/08 **BB**  
Inspection Data: Pitless adapter and 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 installed inside of well 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 ✓





Bureau of Environmental Health  
7178 Columbia Gateway Drive Columbia, Maryland 21046-2132  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: [www.hchealth.org](http://www.hchealth.org)

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

February 10, 2009

Homeowner  
11235 Independence Way  
Ellicott City, MD 21042

FAX SENT VIA FACSIMILE 410-992-3234

RE: Homewood Crossing, Lot 52  
BP#: B08001173  
Well Tag #: HO-95-1262

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. Final approval of the septic system was granted on 02/06/2009. Final approval of the well line connection to the dwelling was approved on 08/18/2008.

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. The water sample results were found to be in compliance with COMAR water quality standards.

Gross Alpha and Beta samples were also collected on 04/15/2008. Both findings were below the maximum limit suggested by the EPA. At the time of the 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 and Occupancy.

Enclosed with this certificate, is a copy of the septic permit and the as-built along with important information regarding the use and maintenance of your septic system. Please read through carefully and thoroughly. Any questions regarding your well and/or septic, please call this office for guidance 410-313-1771.

## INTERIM CERTIFICATE OF POTABILITY

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-95-1262. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

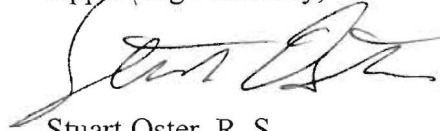
This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. Please contact (410) 313-1792 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.

Date of Water Samples: 01/22/2009

Date of Samples for Gross Alpha & Gross Beta: 04/15/2008

Date of Well Completion: 04/14/2008

Approving Authority,



Stuart Oster, R. S.  
Well & Septic Program

cc: Building Inspector's Office  
Community Health Services  
File

**FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.**

1415 Old Paneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

**REPORT OF ANALYSIS**

Laboratory ID #: 70079 Account #: 1930  
 Reference: Toll Brothers Lot 52 Company: Fogle's Well Drilling  
 Location: 11235 Independence Way Requested By: Dave Fogle  
 Ellicott City, MD 21042 Source: Well Water  
 Date/ Time Collected: 1/22/2009 1400 Site: Kitchen Sink Tap  
 Date/Time Rec'd: 1/22/2009 1547 Treatment: None  
 Chlorine ppm: Free: ND Total: ND pH: 6.3  
 Collected By: V.M. Fadoul 6804VF-FS Well #: HO-95-1262

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/23/2009 / 1000 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/23/2009 / 1000 / CCH
Nitrate	<1.0	mg/L	10	601	1/23/2009 / 1100 / BCD
Turbidity	0.68	NTU	<10	SM18 2130B	1/23/2009 / 1030 / CCH
Sand	NS	mg/L	5	Visual/Gravimetric	1/23/2009 / 1035 / CCH

**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 Sample collected by client, analyzed as received
- 8 pH and Chlorine level tested in lab

Reason for Test : Use & Occupancy  
 Building Permit # : B08001173

Date Reported: 1/23/2009



Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
(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

May 14, 2008

Toll Brothers, Inc.  
11423 Hunt Crossing Ct.  
Ellicott City, Maryland 21042

RE: Patuxent Chase Lot # 52  
Independence Way  
Well Tag: HO - 95 - 1262

To Whom It May Concern:

A sample was collected during a yield test on April 15, 2008 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  $<1.0 \pm 0.0$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $2.0 \pm 2.0$  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 appears safe for all uses. No additional testing **for these parameters** will be required to secure the future Use & Occupancy. However, other standard 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 to discuss additional testing requirements.

Sincerely,  
  
Bert Nixon, Director  
Bureau of Environmental Health

cc: Barry Glotfelty, MDE Water Mgmt.  
Well & Septic property file

Send Report To:  
Bert Nixon

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

**LABORATORY ANALYSIS REQUEST**

Sample Bottle No. A: 40-95-1262 No. B: \_\_\_\_\_ Field Blank Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_

Plant/Site Name: Patuxent Chase Lot 52 County: Howard

Sample Source: Independence Way Location: 140-95-1262  
 (well no., lab sink, sample tap, etc.)

County:   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: K. Wolf

Telephone No: 410-313-2645

Date Collected: 4/15/08

Time Collected: 10:45 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Submitters Code:   Federal Project:

Field Data: \_\_\_\_\_

Remarks: Sample collected @ Yield test pH \_\_\_\_\_ Chlorine \_\_\_\_\_

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	2259	<1	04/21/08
✓	Gross Beta	4100	2259	2 ± 2	
	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: 04/16/08

Supervisor: S. Wiso