

C1 7232

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE RECEIVED MM DD YY

10 11 07

22 200 26 (TO NEAREST FOOT)

1/31/08 O.K. (BB)

HO-95-1257

OWNER: TOLL Brothers last name first name STREET OR RFD: Independence Way TOWN: Columbia SUBDIVISION: Homewood Crossing SECTION: LOT: 50

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes handwritten entries: Brown micaceous, Gray Limestone, 0-70, 70-200.

GROUTING RECORD section: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM, BC), NO. OF BAGS (20), NO. OF POUNDS (1880), GALLONS OF WATER (120), DEPTH OF GROUT SEAL (0-71).

CASING RECORD section: casing types insert appropriate code below (ST, CO, PL, OT), MAIN CASING TYPE (PL), Nominal diameter top (06), Total depth of main casing (80).

OTHER CASING (if used) section: diameter, depth (feet) from to.

SCREEN RECORD section: screen type or open hole (ST, BR, HO, PL, OT), insert appropriate code below.

NUMBER OF UNSUCCESSFUL WELLS: 0. WELL HYDROFRACTURED: Y.

CIRCLE APPROPRIATE LETTER: A (well abandoned and sealed), 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.: M SD 009. DRILLER SIGNATURE: [Signature]. LIC. NO.: D.

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

DEPTH (nearest ft.) table with columns 1-21 and rows E, A, C, H, S, R, E, N. Includes handwritten values: 80, 200.

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

PUMPING TEST section: HOURS PUMPED (03), PUMPING RATE (4.6), METHOD USED TO MEASURE PUMPING RATE (196L), WATER LEVEL (20 ft. before, 84 ft. when), TYPE OF PUMP USED (S submersible).

PUMP INSTALLED section: DRILLER INSTALLED PUMP (NO), TYPE OF PUMP INSTALLED (S), CAPACITY: GALLONS PER MINUTE (01), PUMP HORSE POWER (37), PUMP COLUMN LENGTH (43), CASING HEIGHT (above), LAND SURFACE (01 foot below).

LOCATION OF WELL ON LOT section: SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL). Includes handwritten note: NO survey stakes.

B 1 **6145**

SEQUENCE NO. (MDE USE ONLY)

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

STATE PERMIT NUMBER  
Ho-95-1257  
fill in this form completely

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13  
15 Last Name Owner First Name 34  
Toll Brothers  
36 Street or RFD 55  
11423 Hunt Crossing Ct  
57 Town 70 State 72 Zip 76  
Ellicott City Md. 21042

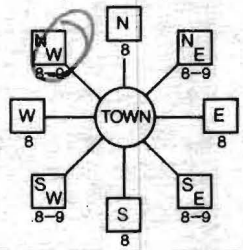
B 3 LOCATION OF WELL

8 COUNTY 21  
Howard  
23 SUBDIVISION 42  
Homewood Crossing  
SECTION 44 46 LOT 48 50  
50  
52 NEAREST TOWN 71  
Columbia  
MILES FROM TOWN (enter 0 if in town) 5 MI  
73 76 77 78

DRILLER INFORMATION

Driller's Name M SD 009  
Fogles Well Drilling  
Firm Name  
580 Obrecht rd.  
Address  
Signature Date  
7-13-07

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



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

B 2 WELL INFORMATION

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

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- INDUSTRIAL, COMMERCIAL, DEWATERING
- PUBLIC WATER SUPPLY WELL
- TEST, OBSERVATION, MONITORING
- GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER  
HEALTH DEPARTMENT APPROVAL

Howard (13) A515042  
COUNTY NAME COUNTY NO.  
STATE SIGNATURE INSERT S  
DATE ISSUED 9/20/2007 Brian Baker 9/20/2008  
43 MM DD YY 48 CO SIGNATURE EXP. DATE  
NORTH GRID 510 000 EAST GRID 827 000  
50 55 57 63

APPROXIMATE DEPTH OF WELL 24 300 28 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

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)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL
- THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- THIS WELL WILL DEEPEMED 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)

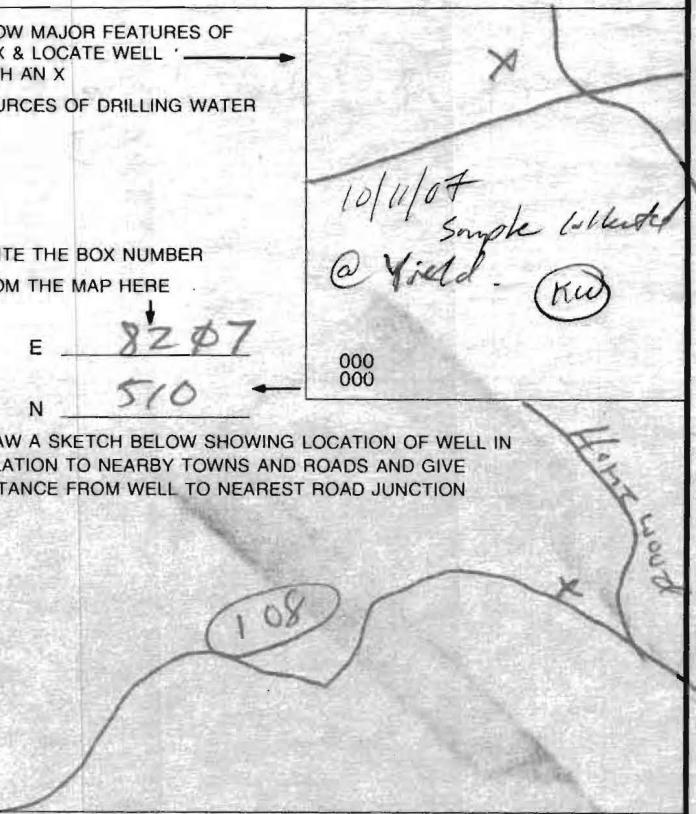
APPROP. PERMIT NUMBER G  
PERMIT No. Ho-95-1257  
70 71 72 73 74 75 76 77 78 79

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 82 07  
N 510

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 SHEETS IF NEEDED  
Need to Collect Radium Sample During Yield Test

**FOGLE'S WELL DRILLING & PUMP SERVICE'S**

580 OBRECHT RD  
 Sykesville, Md 21784  
 (410)795-5670

Date: 10-11-07

Name: TOLL Brothers

Address Independence Way Lot# 50 Tag# HO-95-1257

**Well Yield Test Results:**

TIME	WATER LEVEL	TIME TO FILL 1 GAL	GPM
8:00	20	4	15
8:15	84	13	4.6
8:30	84	13	4.6
8:45	84	13	4.6
9:00	84	13	4.6
9:15	84	13	4.6
9:30	84	13	4.6
9:45	84	13	4.6
10:00	84	13	4.6
10:15	84	13	4.6
10:30	84	13	4.6
10:45	84	13	4.6
11:00	84	13	4.6
11:15	84	13	4.6
:30			
:45			
:00			

**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 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: Benedict Farm - Patuxent Lot #: 50 Well Tag #: HO-95-1259  
Site Address: 11227 Independence way  
E.C.

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Crawford</u>	Make: <u>Campbell</u>	Two piece watertight cap: <u>yes</u>
Model #: <u>155607-180</u>	Model#: <u>N/A</u>	Screened, vented well cap: <u>yes</u>
Pump Capacity <u>7</u> GPM	Depth: <u>36</u> (36" min)	Cap secured to casing: <u>yes</u>
Well Yield: <u>4.6</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>200'</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 N/A</u>		

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>1" Black Plastic</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: 10/24/11

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

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: \_\_\_\_\_ Inspector: \_\_\_\_\_

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 \_\_\_\_\_

**HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
WATER AND SEWERAGE PROGRAM  
TEL: (410)313-2640 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: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Address: \_\_\_\_\_

(Must circle one) Licensed Plumber      Licensed Well Driller      Licensed Well Pump Installer  
License # and name of individual responsible for the field installation:

Name (Print): \_\_\_\_\_ License# \_\_\_\_\_

**\*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: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Subdivision: \_\_\_\_\_ Lot #: 50 Well Tag #: HO - 95-1257  
Site Address: 4227 Independence Way

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: _____	Make: _____	Two piece watertight cap: _____
Model #: _____	Model#: _____	Screened, vented well cap: _____
Pump Capacity _____ GPM	Depth: _____ (36" min)	Cap secured to casing: _____
Well Yield: _____ GPM	NSF approved: _____	Conduit min 18" B.G.: _____
Depth of well encountered at time of pump installation: _____ (feet)		Conduit secured to well cap: _____
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 _____		

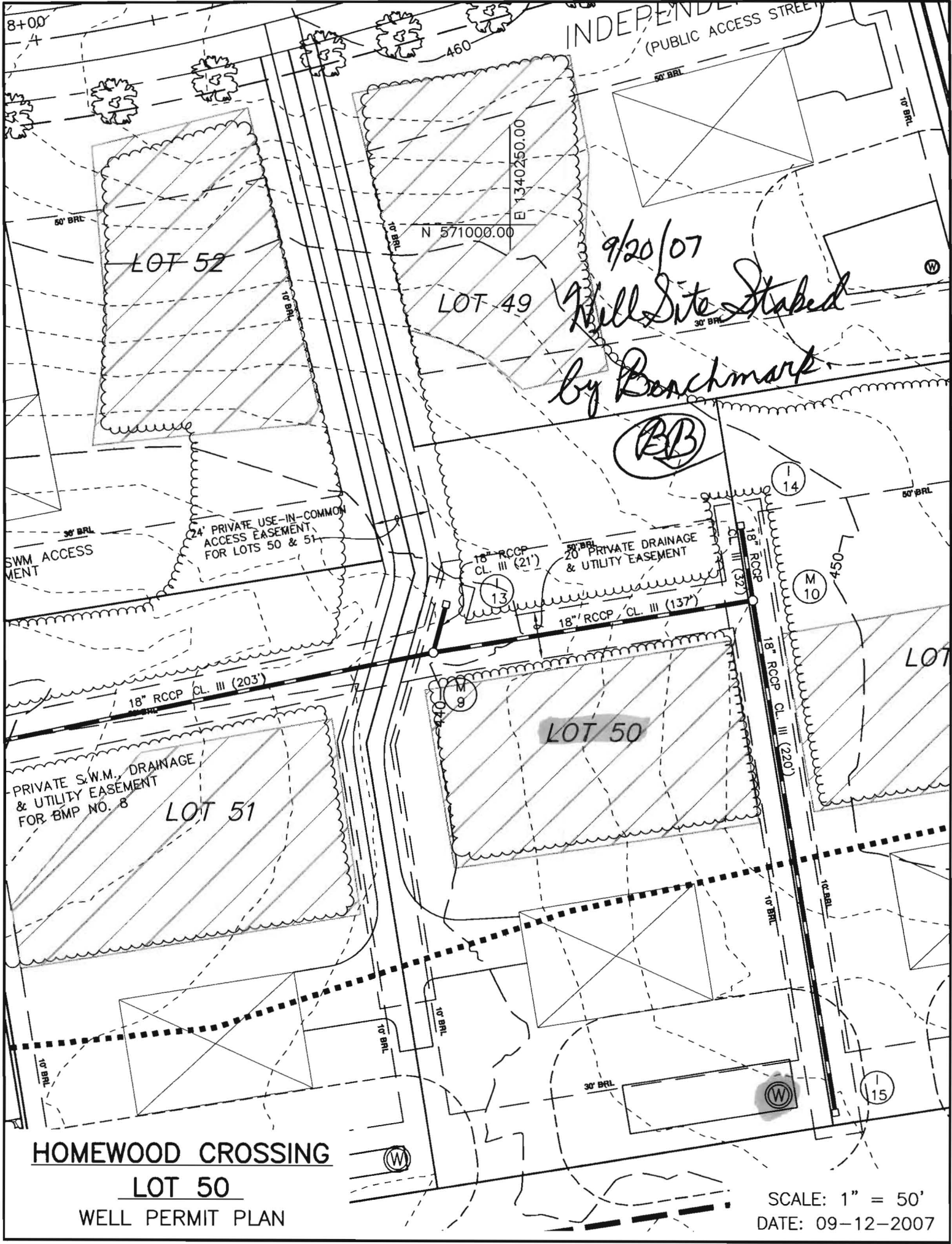
<u>Piping to house</u>	<u>House Connection</u>
Type: _____	PVC sleeved to undisturbed soil at wall penetration: _____
PSI: _____ (160 psi min)	Approximate length of sleeve: _____
Depth of supply line: _____ (36" min)	Sleeve caulked and sealed properly: _____

**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 \_\_\_\_\_ date \_\_\_\_\_

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

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: 10/25/11 **(KW)**  
 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



INDEPENDENCE  
(PUBLIC ACCESS STREET)

9/20/07  
Well Site Staked  
by Benchmark

(BB)

LOT 52

LOT 49

LOT 50

LOT 51

HOMEWOOD CROSSING

LOT 50

WELL PERMIT PLAN

SCALE: 1" = 50'  
DATE: 09-12-2007

8+00  
4

460

E 1340250.00

N 571000.00

24' PRIVATE USE-IN-COMMON  
ACCESS EASEMENT  
FOR LOTS 50 & 51

18" RCCP  
CL. III (21')

20" PRIVATE DRAINAGE  
& UTILITY EASEMENT

18" RCCP CL. III (137')

18" RCCP CL. III (203')

PRIVATE S.W.M., DRAINAGE  
& UTILITY EASEMENT  
FOR BMP NO. 8

(14)

(M 10)

(M 9)

(15)

(W)

(W)

50' BRL

10' BRL

50' BRL

10' BRL

30' BRL

30' BRL  
SWM ACCESS  
MENT

50' BRL

18" RCCP  
CL. III (32')

18" RCCP CL. III (220')

10' BRL

10' BRL

30' BRL

10' BRL

10' BRL



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

## INTERIM CERTIFICATE OF POTABILITY

Expiration Date – July 4, 2012

January 4, 2012

Homeowner  
11227 Independence Way  
Ellicott City, MD 21042

**RE: Homewood Crossing, Lot 50  
11227 Independence Way  
Building Permit: B11001448  
Well Permit: HO-95-1257**

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 **12/15/2011**. Final approval of the well line connection to the dwelling was granted on **10/25/2011**. The well construction was completed on **10/11/2007**. Water samples were collected on **11/23/2011, and 12/8/2011 and 12/15/2011**.

The water sample results indicate that the water samples submitted for testing **12/8/2011** and on **12/15/2011** were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

For Gross Alpha and Gross Beta samples collected on **10/11/2007**, results showed a **Gross Alpha** level of **57.1 ± 19.0 pCi/L** and **Gross Beta** level of **14.0 ± 3.1 pCi/L**. The Gross Alpha exceeded the maximum contaminant level of **15pCi/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).

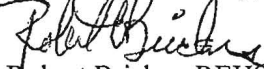
**Gross Alpha** and **Gross Beta** samples were collected again on **12/8/2011**. The detailed results of analyses follow: **short-term Gross Alpha** was **7.3 pCi/L** and **long-term Gross Alpha** was **5.2 pCi/L**, both below the MCL of **15pCi/L**; **short-term Gross Beta** was **11.9 pCi/L** and **long-term Gross Beta** was **9.1**, both below the target level of **50 pCi/L**; **Radium-226** was **1.3 pCi/L** and **Radium-228** was **< 0.9 pCi/L**, their sum (**< 2.2 pCi/L**) being below the combined reference level of **5pCi/L**. At the time of testing and with respect to these parameters, the well water meets all Environmental Protection Agency (EPA) regulatory standards.

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-95-1257. 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,



Robert Bricker, REHS/R.S.  
Environmental Sanitarian  
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits  
Toll MD III LP, 7164 Columbia Gateway Drive, Columbia, MD 21046  
Community Hygiene Program  
File

**FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.**  
 1413 Old Taneytown Rd. Westminster, MD 21157 (410) 848-1014 (410) 848-4554 FAX (410) 848-0298

**REPORT OF ANALYSIS**

Laboratory ID #: 82606 Account #: 1930  
 Reference: Toll Brothers Lot 50 Company: Fogle's Well Drilling  
 Location: 11227 Independence Way Requested By: Dave Fogle  
 Ellicott City, MD 21042 Source: Well Water  
 Date/ Time Collected: 12/15/2011 1215 Site: Master Bath Sink  
 Date/Time Rec'd: 12/15/2011 1522 Treatment: None  
 Chlorine ppm: Free: ND Total: ND pH: 5.9  
 Collected By: J. Fogle 1974JF Well #: HO-95-1257

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/16/2011 / 0930 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/16/2011 / 0930 / KME

*ok*  
*reB 1/4/12*

**NOTES**

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Sample collected by client, analyzed as received
- 5 pH & Chlorine level tested in lab

Reason for Test : Use & Occupancy  
 Building Permit # : B11001448

Date Reported: 12/16/2011

**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 #:	82523	Account #:	1930
Reference:	Toll Brothers Lot 50	Company:	Fogle's Well Drilling
Location:	11227 Independence Way Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	12/8/2011 1406	Source:	Well Water
Date/Time Rec'd:	12/8/2011 1525	Site:	Kitchen Sink
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	5.6
		Well #:	HO-95-1257

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	7.3	pCi/L	15	900.0	12/13/2011 / 1222 / MJN
Gross Beta, Short Term	11.9	pCi/L	50	900.0	12/13/2011 / 1222 / MJN
Gross Alpha, Long Term	5.2	pCi/L	15	900.0	12/16/2011 / 1414 / MJN
Gross Beta, Long Term	9.1	pCi/L	50	900.0	12/16/2011 / 1414 / MJN
Radium-226	1.3	pCi/L	****	903.1	12/20/2011 / 1414 / MJN
Radium-228	<0.9	pCi/L	****	Ra-05	12/19/2011 / 1430 / SN

*ok reb 1/4/12***NOTES**

- 1 \*\*\*\*Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 Long Term Gross Alpha Detection Limit: 1.1 pCi/L; Long Term Gross Beta Detection Limit: 1.2 pCi/L
- 3 pCi/L = picocuries per liter
- 4 Radium 226 Detection Limit: 0.2 pCi/L; Radium 228 Detection Limit: 0.9 pCi/L
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 Short Term Gross Alpha Detection Limit: 1.9 pCi/L; Short Term Gross Beta Detection Limit: 2.2 pCi/L
- 7 ND:None Detected
- 8 Sample collected by client, analyzed as received
- 9 pH & Chlorine level tested in lab

**Reason for Test :** Use & Occupancy  
**Building Permit # :** B11001448

Date Reported: 12/21/2011

**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 #:	82521	Account #:	1930
Reference:	Toll Brothers Lot 50	Company:	Fogle's Well Drilling
Location:	11227 Independence Way Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	12/8/2011 1406	Source:	Well Water
Date/Time Rec'd:	12/8/2011 1525	Site:	Kitchen Sink
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	5.6
		Well #:	HO-95-1257

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/9/2011 / 1000 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/9/2011 / 1000 / KME

*reb*  
*1/4/12*

**NOTES**

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Sample collected by client, analyzed as received
- 5 pH & Chlorine level tested in lab

Reason for Test : Use & Occupancy  
 Building Permit # : B11001448

Date Reported: 12/12/2011

**FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.**

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4854 FAX (410) 848-0298

**REPORT OF ANALYSIS**

Laboratory ID #:	82351	Account #:	1930
Reference:	Toll Brothers Lot 50	Company:	Fogle's Well Drilling
Location:	11227 Independence Way Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	11/23/2011 1110	Source:	Well Water
Date/Time Rec'd:	11/23/2011 1425	Site:	Master Bath Tub
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	5.9
		Well #:	HO-95-1257

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	15.0	MPN/ 100 ml	<1.0	SM18 9223	11/26/2011 / 1100 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/26/2011 / 1100 / BCD
Nitrate	1.55	mg/L	10	601	11/23/2011 / 1600 / CCH
Turbidity	0.37	NTU	<10	SM18 2130B	11/23/2011 / 1445 / CCH
Sand	NS	mg/L	5	Visual/Gravimetric	11/23/2011 / 1445 / CCH

Feb  
1/4/12

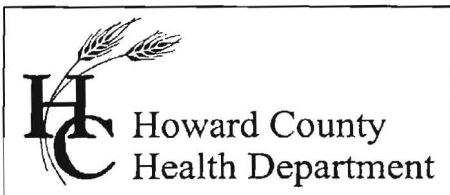
**NOTES**

- 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 & Chlorine level tested in lab

Reason for Test : Use &amp; Occupancy

Building Permit # : B11001448

Date Reported: 12/12/2011



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

January 4, 2012

Homeowner  
11227 Independence Way  
Ellicott City, MD 21042

**RE: Radium and associated degradation products –water quality test results  
11227 Independence Way; Homewood Crossing, Lot 50  
Well Permit: HO-95-1257**

Dear Homeowner:

The water sample results for Gross Alpha and Gross Beta samples collected on 10/11/2007 showed a **Gross Alpha** level of  $57.1 \pm 19.0$  pCi/L and **Gross Beta** level of  $14.0 \pm 3.1$  pCi/L. The **Gross Alpha** exceeded the maximum contaminant level (MCL) of 15pCi/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).

Water samples for radium were collected again on 12/8/2011. The detailed results of analyses follow: **short-term Gross Alpha** was 7.3 pCi/L and **long-term Gross Alpha** was 5.2 pCi/L, both below the MCL of 15pCi/L; **short-term Gross Beta** was 11.9 pCi/L and **long-term Gross Beta** was 9.1 pCi/L, both below the target level of 50 pCi/L; **Radium-226** was 1.3 pCi/L and **Radium-228** was < 0.9 pCi/L, their sum (< 2.2 pCi/L) being below the combined reference level of 5 pCi/L. At the time of testing and with respect to these parameters, the well water meets all Environmental Protection Agency (EPA) regulatory standards.

These results reflect the wide variability that may occur when analyzing well-water samples for radium degradation products. While the results for the latter sampling event meet requirements of COMAR 26.04.04 "Well Regulations", the Health Department does not guarantee water supplies.

To mitigate temporal elevated levels of Gross Alpha or Gross Beta and help ensure continued safe levels of either over the long term, the Health Department does recommend that a treatment device be implemented for potable water use on the subject property. Devices such as reverse osmosis or water softener treatment have been shown to be effective in controlling Gross Alpha and Gross Beta contaminant levels in private potable water supplies. Implementation of treatment by the property owner is voluntary, and the Health Department would not require recordation of an Operation and Maintenance Agreement for the treatment system at this time.

Please contact the Bureau of Environmental Health, (410) 313-1771, if you have questions about the content of this letter.

Approving Authority,

Robert Bricker, REHS/R.S.  
Environmental Sanitarian  
Well & Septic Program

cc: Toll MD III LP, 7164 Columbia Gateway Drive, Columbia, MD 21046  
Community Hygiene Program  
File



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

December 26, 2007

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

RE: Patuxent Chase Lot 50  
Independence Way  
Well Tag: HO - 95 - 1257

To Whom It May Concern:


A sample was collected during a yield test on October 11, 2007 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  $57.1 \pm 19.0$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $14.0 \pm 3.1$  pCi/L. The **Gross Alpha** result exceeded 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).

Since the **Gross Alpha** finding exceeded its MCL, additional testing for **Gross Alpha** and **Gross Beta** (both short and long term components), plus **Radium** will be necessary prior to occupancy to verify existing levels. Alternatively, you may install treatment designed to reduce **Gross Alpha**, **Gross Beta** and **Radium**, plus provide post treated results (for all 3 parameters) confirming that levels are in conformance with existing standards. These tests are in addition to the standard parameters required for Use & Occupancy.

Additionally, the owners will be required to sign an "AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM" as part of the Use and Occupancy process.

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

Enclosure

cc: Eric Dougherty, MDE Water Mgmt., Groundwater  
✓ 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: 140-95-1257 No. B: \_\_\_\_\_ Field Blank Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_

Plant/Site Name: Patuxent Chase - Lot 50 County: Harvard

Sample Source: Independence way Location: HO-95-1257  
(well no., lab sink, sample tap, etc.)

County:   Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: K. Wolf

Telephone No: 410-313-2645

Date Collected: 10/11/07

Time Collected: 10:30 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Submitters Code:   Federal Project:  Field Data: \_\_\_\_\_

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

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	<u>710092-002</u>	<u>57.1 ± 19.0</u>	<u>10/16/07</u>
✓	Gross Beta	4100		<u>14.0 ± 3.1</u>	
	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: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

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