

C1 0367

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER 13 A515042

ST/CO USE ONLY DATE RECEIVED MM DD YY

DATE WELL COMPLETED MM DD YY 7 14 06

Depth of Well 425 (TO NEAREST FOOT) 9/13/06

PERMIT NO. FROM "PERMIT TO DRILL WELL." HO-95-0351

OWNER Toll Brothers last name first name STREET OR RFD Fox River Drive TOWN Ellicott City SUBDIVISION Benedict Farm SECTION LOT 30

WELL LOG

Not required for driven wells

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 18 NO. OF POUNDS 11072 GALLONS OF WATER 108 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 39 ft.

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 03 PUMPING RATE (gal. per min.) 6 METHOD USED TO MEASURE PUMPING RATE 194L WATER LEVEL (distance from land surface)

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

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM TO), check if water bearing. Includes handwritten entries: Brown shale (0-65), Gray Limestone (65-425).

CASING RECORD

MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch) 06 Total depth of main casing (nearest foot) 70

OTHER CASING (if used)

Table for OTHER CASING with columns: diameter inch, depth (feet) from to.

SCREEN RECORD

screen type or open hole insert appropriate code below ST STEEL BR BRASS PL PLASTIC HO OPEN HOLE OT OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0

C 2

DEPTH (nearest ft.)

Table for DEPTH with columns: 1-24, 25-48, 49-72, 73-96. Includes handwritten entry: HO 70 425.

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) PUMP HORSE POWER PUMP COLUMN LENGTH (nearest ft.) CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE (nearest foot)

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. M SD 009 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

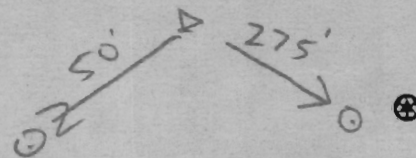
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

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

TELESCOPE CASING LOG INDICATOR OTHER DATA

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND FOR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



B 1	8985	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER Ho-95-0351 fill in this form completely
1 2 3	6		524370	70 79

Date Received (APA) 3/24/2006
8 MM 00 YY 13

OWNER INFORMATION

15 Last Name: Loll Brothers
Owner First Name: 34
36 Street or RFD: 14329 Tradelphia Rd
55
57 Town: Glenelg Md 21737
70 State 72 Zip 76

B 3 **LOCATION OF WELL**

8 COUNTY: Howard
21
23 SUBDIVISION: Benedict Farm
42
SECTION: 44 46 LOT: 30 48 50
52 NEAREST TOWN: Columbia
71

DRILLER INFORMATION

Driller's Name: Allen Compton
76 License No.: M S D 009
81
Firm Name: Fogles Well Drilling
Address: 580 obrecht RD
Signature: [Signature] 3-24-06
Date

B 4 **DIRECTION OF WELL FROM TOWN (CIRCLE BOX)**

1 2
N, NE, E, SE, S, SW, W, NW
TOWN

NEAR WHAT ROAD: Fox River Drive
11 30
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH, WEST, SOUTH, EAST
DISTANCE FROM ROAD: 30 34 37
ENTER FT OR MI: 4
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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Howard (13) COUNTY NO.: A515042
STATE SIGNATURE: [Signature] INSERT S → 41
DATE ISSUED: 4/5/2006
43 MM 00 YY 48
CO SIGNATURE: Brian Baker 4/5/2007
EXP. DATE
NORTH GRID: 510 000 EAST GRID: 825 000
50 55 57 63

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
22 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

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: 82465
N: 510

Handwritten notes: Home wood rd, Rt 108, 7/18/06 yield, Radium tested

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
39 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)

APPROX. PERMIT NUMBER: Ho 2003G006
PERMIT No.: Ho-95-0351
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

Water Sample Must Be Taken During Yield Test

FOGLES WELL DRILLING
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: Fogles Well Drilling Telephone #: 410-795-5670
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 #:
Subdivision: Benedict Farm (Belmont) Lot #: 30 Well Tag #: HO-95-0351
Site Address: 11522 Fox River DR.

Submersible Pump Data

Make: Grundfos
Model #: 1520215390
Pump Capacity: 15 GPM
Well Yield: 6 GPM

Pitless Adapter

Make: Campbell
Model #: NA
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.G.: yes
Conduit secured to well cap: yes

Depth of well encountered at time of pump installation: 40 (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 NA

Piping to house

Type: 1" Black Plastic
PSI: 160 (160 psi min)
Depth of supply line: 1/2 (36" min)

House Connection

PVC sleeved to undisturbed soil at wall penetration: yes
Approximate length of sleeve: 5
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.

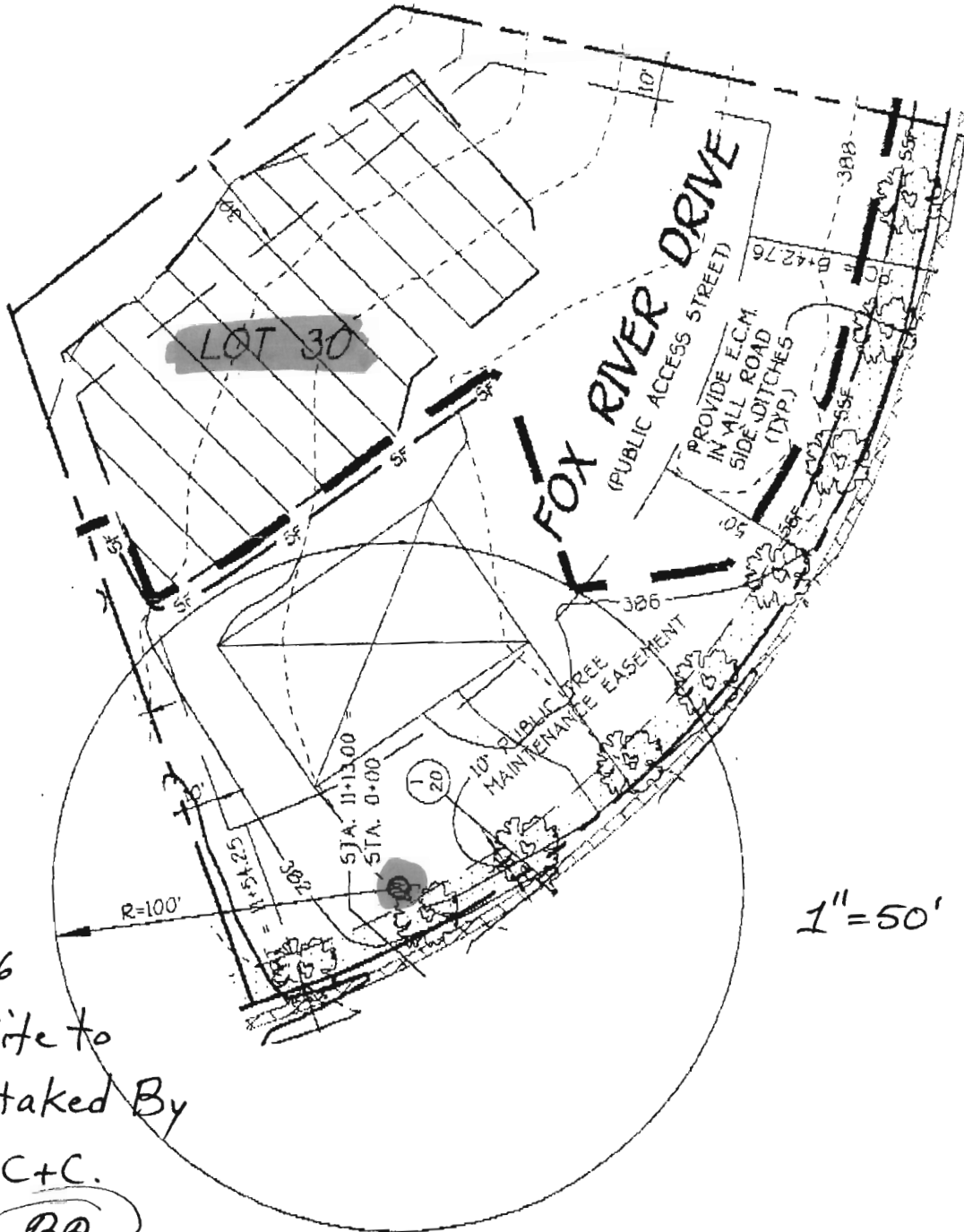
Signature of company representative responsible for installation: Allen Compton date: 12/13/07

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

Date Insp. Requested: _____ Date Insp. Approved: 12/5/07

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

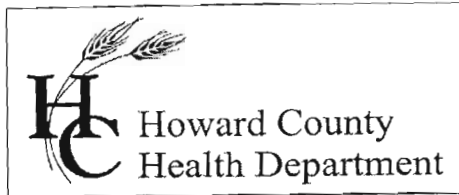
K:\SDSKPROJ\30754 Benedict Farm\dwg\PHASE 1 - FINALS\30754 WELL LOCATION.dwg, 2/16/2006 4:57:41 PM, 1:1



3/30/06
 Well Site to
 Be 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 - 2895

WELL LOCATION PLAN
 LOT-30
 ZONED RC-DEO
 TAX MAP No. 29 GRID No. 9 PARCEL No. 26
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE 1" = 50' DATE: FEBRUARY 16, 2005



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

March 18, 2008

Toll MD III LP
7164 Columbia Gateway Drive, #230
Columbia, MD 21046

SENT VIA FACSIMILE 410-992-3234

RE: Homewood Crossing, Lot 30
Benedict Farm
11522 Fox River Drive
Ellicott City, MD 21042
BP #: B07001028
Well Permit # HO-95-0351

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 10/10/2007. Final approval of the well line connection to the dwelling was approved on 12/05/2007.**

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 collected on 07/17/2006. 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. In order to meet compliance, a water treatment device (Reverse Osmosis) was installed. Post-treatment Radium 226/228 samples were collected on 12/12/2007. The results were less than the combined 226/228MCL of 5pCi/l. At the time of the testing and with respect to these parameters, the treated well water supply appears safe to use. No additional testing **for these parameters** will be required.

However, this treatment system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence to assure future compliance.

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-95-0351. 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:	01/25/2008
Date of Samples for Radium 226/228:	12/12/2007
Date of Samples for Gross Alpha & Gross Beta:	07/17/2006
Date of Well Completion:	07/14/2006

Approving Authority,



Brian Baker, R. S.
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File

Analytical Summary Report

Client Name:	Howard County Health Department	Client Sample ID:	HOGCBF30717
Receipt Date/Time:	7/18/2006	Lab Sample ID:	607131-008
Prepared Date/Time:	7/19/2006	Sample Matrix:	Water
Analysis Date/Time:	7/23/2006 16:26	Analytical Method:	EPA 900.0

Isotope	Result	Uncertainty 2 σ	MDA	Q
Gross Alpha	21.545 pCi/L	+/- 2.4483 pCi/L	1.065 pCi/L	
Gross Beta	11.174 pCi/L	+/- 1.7821 pCi/L	2.190 pCi/L	

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Shore Road, Westminster, MD 21157-2014 (410) 876-5551 FAX (410) 876-6298

REPORT OF ANALYSIS

Laboratory ID #:	66111	Account #:	1930
Reference:	Toll brothers Lot 30	Company:	Fogle's Well Drilling
Location:	11522 Fox River Drive Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	12/12/2007 1200	Source:	Well Water
Date/Time Rec'd:	12/12/2007 1452	Site:	R/O Tap
Chlorine ppm:	Free: ND Total: ND	Treatment:	Reverse Osmosis
Collected By:	V.M. Fadoul 6804VF-FS	pH:	5.6
		Well #:	HO-95-0351

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME ANALYST
Radium-226	0.514	pCi/L	****	Georgia Tech	1/7/2008 / --- / GPL
Radium-228	0.896	pCi/L	****	Georgia Tech	1/7/2008 / --- / GPL

NOTES

- 1 ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 MDA= Minimum Detection Activity
- 3 pCi/L = picocuries per liter
- 4 pH & chlorine level tested in lab
- 5 Radium 226 was analyzed for but not detected at or above the reporting limit.
- 6 Radium 226: MDA 0.790 pCi/L
- 7 Radium 228: MDA 0.826 pCi/L
- 8 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 9 ND:None Detected
- 10 Sample collected by client, analyzed as received
- 11 Subcontracted to Reference Lab #110

Reason for Test : Use & Occupancy
 Building Permit # : B07001028

Date Reported: 1/14/2008

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 #:	66502	Account #:	1930
Reference:	Toll Brothers Lot 30	Company:	Fogle's Well Drilling
Location:	11522 Fox River Drive Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	1/25/2008 1030	Source:	Well Water
Date/Time Rec'd:	1/25/2008 1443	Site:	Kitchen Sink Tap
Chlorine ppm:	Free: ND Total: ND	Treatment:	Reverse Osmosis**
Collected By:	V.M. Fadoul 6804VF-FS	pH:	6.5
		Well #:	HO-95-0351

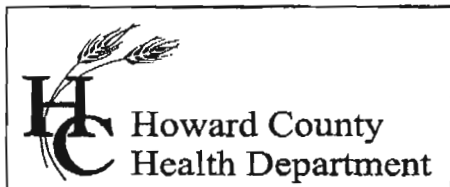
PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	1/26/2008 / 1000 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	1/26/2008 / 1000 / BCD
Nitrate	<1.0	mg/L	10	601	1/25/2008 / 1520 / AD/BD
Turbidity	0.92	NTU	<10	SM18 2130B	1/25/2008 / 1515 / AD/BD
Sand	NS	mg/L	5	Visual/Gravimct	1/25/2008 / 1515 / AD/BD

NOTES

- 1 **Sample collected prior to treatment
- 2 mg/L = milligrams per liter (also, parts per million)
- 3 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 4 NS = None Seen (NS indicates less than 5 mg/L)
- 5 NTU = Nephelometric Turbidity Units
- 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 pH tested on-site

Reason for Test : Use & Occupancy
 Building Permit # : B07001028

Date Reported: 1/28/2008



Bureau of Environmental Health
7178 Columbia 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

Penny E. Borenstein, M.D., M.P.H., Health Officer

September 15, 2006

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

**RE: Benedict Farm Subdivision, Lot 30
Well Tag: HO-95-0351**

To Whom It May Concern:

A sample was collected from a yield test on July 17, 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 21.5 ± 2.4 picocuries/liter (pCi/L); while the **Gross Beta** level was 11.2 ± 1.8 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 equal to the annual dose rate of 4 millirems/year).

Since the **Gross Alpha** finding exceeded its MCL, additional testing for **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 confirming that levels are in conformance with existing standards. Keep in mind that the standard potability parameters required for occupancy will still be needed.

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, Deputy Director
Bureau of Environmental Health

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