

C1 0752

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 12 20 10

DATE WELL COMPLETED MM DD YY 10 25 10

Depth of Well 22 200 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO - 95 - 1987

OWNER TOLL Brothers last name first name STREET OR RFD Independence Way TOWN Columbia SUBDIVISION Bredick farm SECTION LOT 87

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

GROUTING RECORD WELL HAS BEEN GROUTED (Y) NO (N) TYPE OF GROUTING MATERIAL (C) MENTONITE CLAY (B) C NO. OF BAGS 18 NO. OF POUNDS 1092

CASING RECORD (S) T (C) O (P) L (O) T MAIN CASING TYPE PL Nominal diameter 06 Total depth 50

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

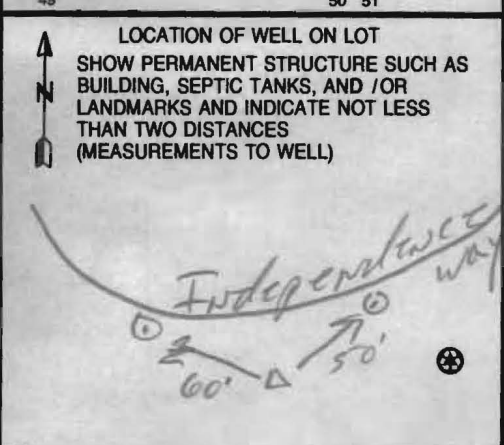
SCREEN RECORD (S) T (B) R (H) O (P) L (O) T screen type or open hole (S) T (B) R (H) O (P) L (O) T

DEPTH (nearest ft.) 1 2 3 4 5 6 7 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED (Y) CIRCLE APPROPRIATE LETTER A E P 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...

C 3 PUMPING TEST HOURS PUMPED (nearest hour) 03 PUMPING RATE (gal. per min.) 10 METHOD USED TO MEASURE PUMPING RATE 190L WATER LEVEL (distance from land surface) BEFORE PUMPING 44 WHEN PUMPING 126 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 (CIRCLE) (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 () LAND SURFACE (-) below 02 (nearest foot)



B 1 9582

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

533980 please type

140-95-1987 fill in this form completely 79

Date Received (APA) 08 19 10

OWNER INFORMATION

Toll Brothers, 11423 Hunt Crossing Ct, Ellicott City Md 21042

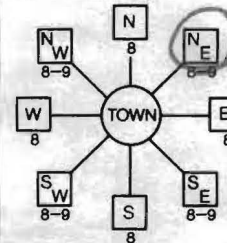
LOCATION OF WELL

Howard County, Homewood Crossing, Columbia, 5 miles from town

DRILLER INFORMATION

Allen Compton, Eagles Well Drilling, P.O. Box 202

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Independence Way, 30 feet from road, Tax Map: 29, Blk: 9, Parcel: 28

WELL INFORMATION: APPROX. PUMPING RATE 5 GAL. PER MIN., AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION (circled), FARMING, INDUSTRIAL, PUBLIC WATER SUPPLY WELL, TEST, OBSERVATION, MONITORING, GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County, State Signature, Date Issued 9/7/10, CO Signature, North Grid 511, East Grid 0826

APPROXIMATE DEPTH OF WELL 300 FEET, APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTary, JETTED AIR-PERCussion, Jetted & DRIVEN ROTARY (Hydraulic Rotary), Drive-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

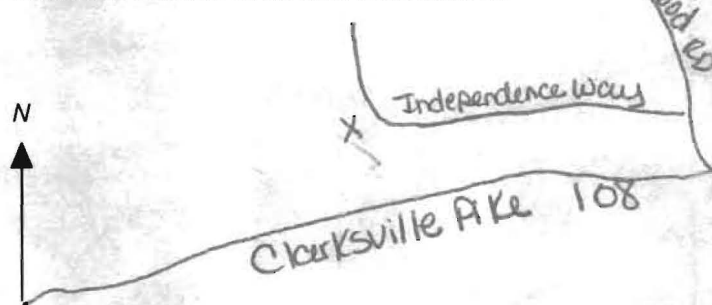
- THIS WELL WILL NOT REPLACE AN EXISTING WELL (circled), THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED, THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS, THIS WELL WILL DEEPEM AN EXISTING WELL

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X, SOURCES OF DRILLING WATER

WRITE THE BOX NUMBER FROM THE MAP HERE: E 8226, N 510

10/25/2010 Radium Sample Collected During Yield Test. (EB)

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



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

APPROX. PERMIT NUMBER 1402003G606, PERMIT No. 140-95-1987

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.
 1413 Old Parkwood Rd. Westminster, MD 21157 (410) 848-1014 (410) 876-8531 FAX (410) 848-8298

REPORT OF ANALYSIS

Laboratory ID #:	88584	Account #:	1930
Reference:	Toll Brothers Lot #87	Company:	Fogle's Well Drilling
Location:	11247 Independence Way Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	4/1/2013 1128	Source:	Well Water
Date/Time Rec'd:	4/1/2013 1355	Site:	Pressure Tank ✓
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	6.4
		Well #:	HO 95-1987

DATE	ADDITIONS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME	ANALYST
		1.1 ✓	pCi/L	****	903.1	4/12/2013 / 0950	MJN
		<0.8 ✓	pCi/L	****	Ra-05	4/11/2013 / 1256	SN

OK
 rfb 4/22/13

NOTES

- 1 ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 pCi/L = picocuries per liter
- 3 Radium 226 Detection Limit: 0.1 pCi/L; Radium 228 Detection Limit: 0.8 pCi/L
- 4 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 5 Sub-contracted to Reference Lab #278
- 6 ND:None Detected
- 7 pH and Chlorine level tested in lab
- 8 Sample collected by client, analyzed as received

Reason for Test : Use & Occupancy
 Building Permit # : B12001473

Date Reported: 4/17/2013

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 #: 88583 Account #: 1930
Reference: Toll Brothers Lot #87 Company: Fogle's Well Drilling
Location: 11247 Independence Way Requested By: Dave Fogle
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 4/1/2013 1128 Site: Pressure Tank ✓
Date/Time Rec'd: 4/1/2013 1355 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.4
Collected By: J. Fogle 1974JF Well #: HO-95-1987

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0 ✓	MPN/ 100 ml	<1.0	SM18 9223	4/2/2013 / 1100 / CCH
Bacteria, E. coli, MPN	<1.0 ✓	MPN/ 100 ml	<1.0	SM18 9223	4/2/2013 / 1100 / CCH
Nitrate	<1.0 ✓	mg/L	10	601	4/2/2013 / 1315 / CCH
Turbidity	0.94 ✓	NTU	<10	SM18 2130B	4/2/2013 / 0820 / JKW
Sand	NS ✓	mg/L	5	Visual/Gravimetric	4/2/2013 / 0822 / JKW

'OK' reb 4/22/13

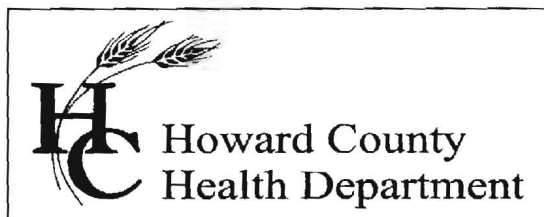
NOTES

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

Reason for Test : Use & Occupancy

Building Permit # : B12001473

Date Reported: 4/2/2013



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – OCTOBER 23, 2013

April 23, 2013

Homeowner
11247 Independence Way
Ellicott City, MD 21042

**RE: Homewood Crossing, Lot 87
11247 Independence Way
Building Permit: B12001473
Well Permit: HO-95-1987**

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 **1/18/2013**. Final approval of the well line connection to the dwelling was granted on **11/13/2012**. The well construction was completed on **10/25/2010**. Water samples were collected on **4/1/2013**.

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.

Radium 226 and Radium 228 samples were also collected on **4/1/2013**. Results showed a **Radium 226** level of **1.1 pCi/L** and **Radium 228** level of **<0.8 pCi/L**. The sum of Radium 226 and Radium 228 was below the maximum contaminant level (MCL) of 5 pCi/L for Radium 226 plus Radium 228. 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-95-1987. 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,

A handwritten signature in black ink, appearing to read "Robert Bricker". The signature is written in a cursive style with a large initial "R".

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

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

**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: Eagles 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# MSD 009

*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: Honeywood Crossing Lot #: 87 Well Tag #: HO-95-1987 ✓
Site Address: 11247 Independence Way

Submersible Pump Data

Make: Grundfos
Model #: 1550E07-180
Pump Capacity 15 GPM
Well Yield: 10 GPM

Pitless Adapter

Make: Campbell
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

Depth of well encountered at time of pump installation: 200 (feet) Conduit secured to well cap: yes

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 NA

Piping to house

Type: 1" Black Plastic
PSI: 162 (160 psi min)
Depth of supply line: 4" (36" min)

House Connection

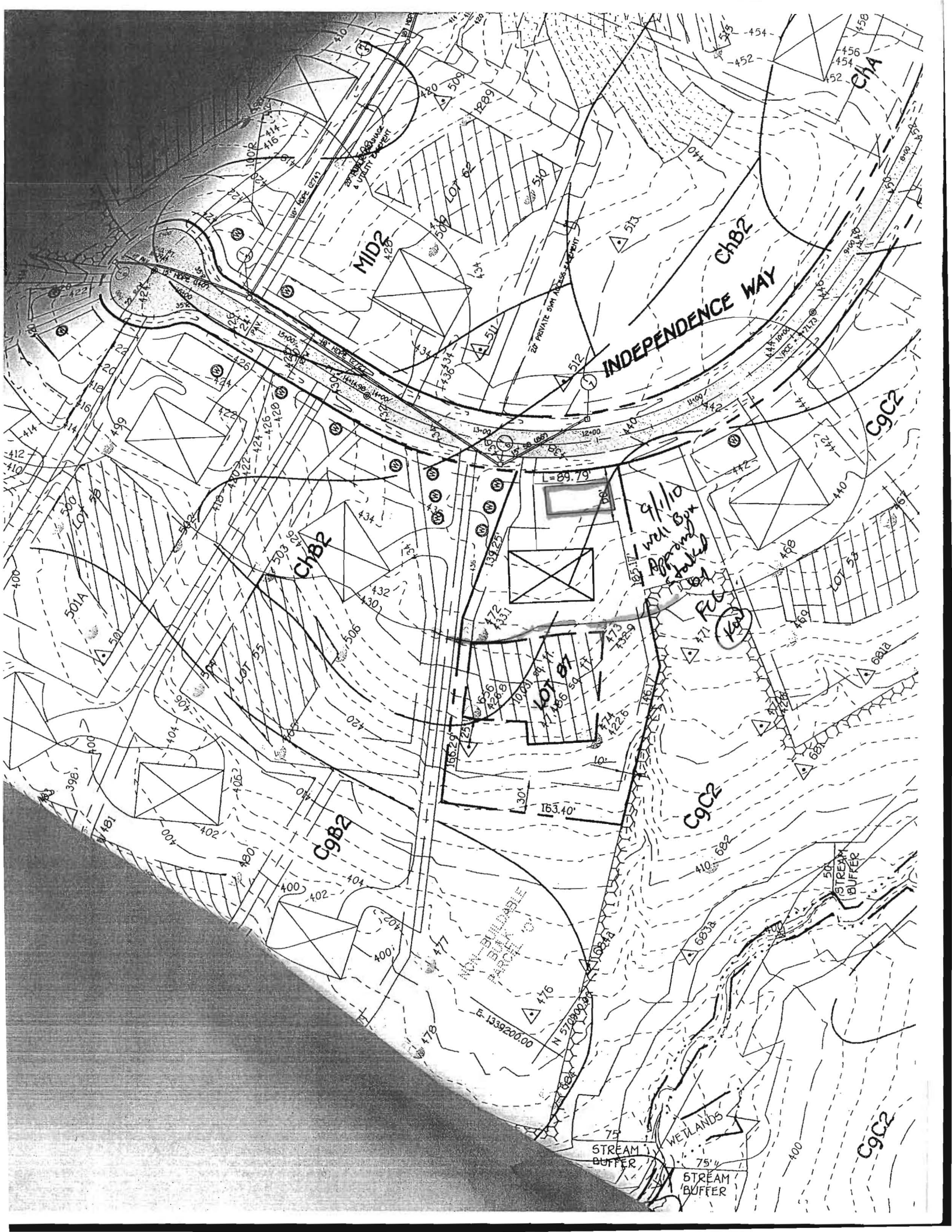
PVC sleeve to undisturbed soil at wall penetration: yes
Length of sleeve (5' minimum from foundation): 5'
Sleeve sealed properly: yes

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: Allen Compton date: 11-12-12

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

Date Insp. Requested: _____ Date Insp. Approved: 11/13/12 Inspector: KW
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 ✓



MID2

ChB2

INDEPENDENCE WAY

C9C2

ChB2

WELL BOX

C9B2

C9C2

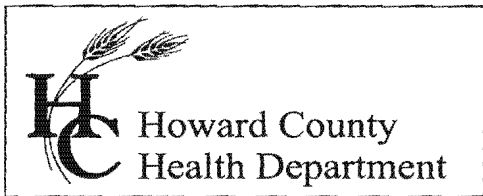
MAILBOX

WETLANDS

STREAM BUFFER

STREAM BUFFER

C9C2



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

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

MEMORANDUM

TO: Fogle's Well Drilling
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 81-88 Well Permit Applications*
Special Condition → **Radium Testing Needed**

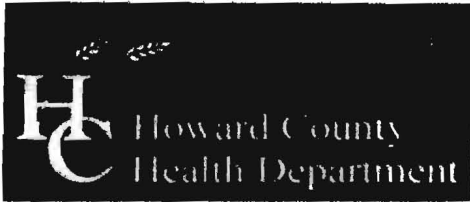
DATE: September 7th, 2010

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

Homewood Crossing Lots 81-88 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 sample the water for radium.

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 81-88



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

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location: (Homewood Crossing)
Toll Brothers All Lots ^{are} staked
 Subdivision/Property Name Lot# Road Name

- The well site has been staked by Fisher, Collins & Carter Inc.
 (professional land surveyor or company employing professional land surveyors)
 on _____ (date) and does not require a site inspection.
- The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05

Send Report To: Bert Nixon
Howard Co. Env. Health
7178 Columbia Gateway
Columbia, MD 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

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: Blank No. B: _____ Field Blank Bottle No. 1: _____ No B: _____

Plant/Site Name: Homewood Crossing - Lot 87 County: Howard

Sample Source: Independence Way Location: _____ (well no, lab sink, sample tap, etc.)

County: B 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: Brian Baker

Telephone No.: (410) 313-2643

Date Collected: 10/25/2010

Time Collected: 11 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: No

Submitters Code: Federal Project: Field D

Remarks: _____

Radium

✓	Test	EPA Code	Laboratory No.	R	d
	Gross Alpha	4000			
	Gross Beta	4100			
	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			

?

① Ask Bert for Letters

② Call Builders.

Date Received: ___/___/___

Supervisor: _____

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

Send Report To: Bert Nixon
Howard Co. Env. Health
7178 Columbia Gateway
Columbia, MD 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

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: Blank No. B: _____ Field Blank Bottle No. 1: _____ No B: _____
 Plant/Site Name: Homewood Crossing - Lot 87 County: Howard
 Sample Source: Independence Way Location: _____
(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: Brian Baker Telephone No.: (410) 313-2643

Date Collected: 10/25/2010 Time Collected: 11 a.m. _____ 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				
	Gross Beta	4100				
	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: _____

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

Send Report To: Bert Nixon
Howard Co. Env. Health
7178 Columbia Gateway Dr.
Columbia, MD 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

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: 951987B No. B: _____ Field Blank Bottle No. 1: _____ No B: _____
 Plant/Site Name: Homewood Crossing - Lot 87 County: Howard
 Sample Source: Independence Way Location: HO-95-1987
(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: Brian Baker Telephone No.: (410) 313-2643
 Date Collected: 10/25/2010 Time Collected: 11:00 a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: _____
pH Chlorine

Remarks: Sample Collected During Yield Test

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000				
✓	Gross Beta	4100				
	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: _____

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