

C1 1160

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)

COUNTY NUMBER A516063

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER, STREET OR RFD, TOWN, SUBDIVISION, SECTION, LOT

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. Includes handwritten entries: Brown Shale 0-52, Gray Mica Rock 52-340.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT BENTONITE CLAY

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot) from TOP ft. to BOTTOM ft.

CASING RECORD

Case types insert appropriate code below: ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE, Nominal diameter top (main) casing, Total depth of main casing

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

SCREEN RECORD

screen type or open hole: ST STEEL, BR BRASS, HO OPEN HOLE, PL PLASTIC, OT OTHER

DEPTH (nearest ft.)

Table with columns: E, A, C, H, S, R, E, E, N and depth intervals (8-11, 15-17, 21-23, 24-26, 30-32, 36-38, 39-41, 45-47, 51-53, 54-56, 60-62, 66-68, 70-72)

SLOT SIZE 1 2 3, DIAMETER OF SCREEN (NEAREST INCH)

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 TELESCOPE CASING, 72 LOG INDICATOR, 74 75 76 OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 4

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 15 ft.

WHEN PUMPING 250 ft.

TYPE OF PUMP USED (for test)

Selection boxes: A air, P piston, T turbine, C centrifugal, R rotary, O other, J jet, S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or 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

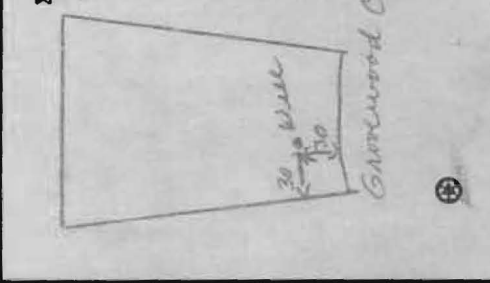
PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

Selection boxes: + above, - below, LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT

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



NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED Y N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 M SD 024

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)

1 1482 6

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER HO-95-0233 fill in this form completely

523747 please type

OWNER INFORMATION: Date Received (APA) 01 20 06, Horton, 1370 Piccadilly Drive, Rockville, MD 20850

LOCATION OF WELL: Howard County, Turnbury Grove, Clarksville, 1/2 miles from town

DRILLER INFORMATION: Joseph L. Mayne, M 5 D 024, Joseph L. Mayne Well Drilling, 5512 Ridge Rd Mt. Airy, MD 21771

DIRECTION OF WELL FROM TOWN (CIRCLE BOX) showing compass directions and road information: Crowwood Ct., 25 feet from road

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

USE FOR WATER (CIRCLE APPROPRIATE BOX): D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

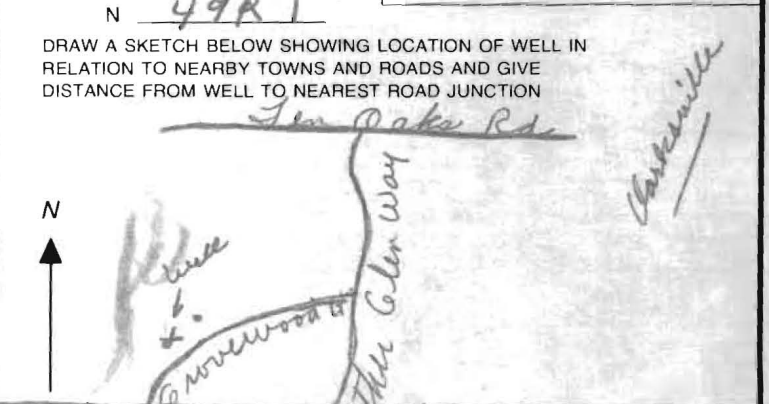
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL: Howard County, AS16063, 7/8/06, signed by John A. Hughes

APPROXIMATE DEPTH OF WELL 300 FEET, APPROXIMATE DIAMETER OF WELL 6 INCH, NEAREST TOWN Clarksville

SOURCES OF DRILLING WATER: 1. well, 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE: E 814, N 497

METHOD OF DRILLING (circle one): BORED (or Augered), AIR-ROTary, CABLE

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX): N THIS WELL WILL NOT REPLACE AN EXISTING WELL



Not to be filled in by driller (MDE OR COUNTY USE ONLY): APPROP. PERMIT NUMBER HQ2006G003(01), PERMIT No. HO-95-0233

SPECIAL CONDITIONS: This Well must be tested for Radium and County CS @ the yield test



May 18 2009 8:55AM

HP LASERJET FAX

p. 1

**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: ASSOCIATED PLUMBING SERVICES Telephone #: 410-242-2600  
 Address: 3916 VERO RD SW D  
HALTHERSFB, MD 21227

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

Name (Print): DANIEL P. KAPPER License# 11539

\*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: SHANN A BRAMS Telephone #: 201-919-5177  
 Subdivision: RESOURCES AT CLARKSVILLE Lot #: 11 Well Tag #: HO-95-0233  
 Site Address: 12614 GROVEWOOD CT  
CLARKSVILLE, MD

**Submersible Pump Data**

Make: SPINDRUS  
 Model #: 2250E150-220  
 Pump Capacity 20 GPM  
 Well Yield: 15 GPM

Depth of well encountered at time of pump installation: 20 (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

**Pitless Adapter**

Make: MORRISON  
 Model#: \_\_\_\_\_  
 Depth: 38" (36" min)  
 NSF approved: YES 160'

**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

**Piping to house**

Type: 1 1/4 Poly  
 PSI: 200 (160 psi min)  
 Depth of supply line: 42" (36" min)

**House Connection**

PVC sleeved to undisturbed soil at wall penetration:   
 Approximate length of sleeve: 10'  
 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: Daniel P. Kapper

date: 5-19-09

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

Date Insp. Requested: 5-20-09 Date Insp. Approved: 8/21/09 50  
 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  2' below below grade  
 Water supply line sleeved adequately at house connection   
 Adequate grout observed below pitless adapter  OK

GRID-NORTH

N 558.750  
E 1,326.250

LOT 7

LOT 8

LOT 9

LOT 10

LOT 13

LOT 11

LOT 12

LOT 15

LOT 14

N/F  
JEAN H. WARFIELD  
2823/518  
P. 43  
ZONED: R1000  
AGRICULTURAL EASEMENT  
HC-81-04-E

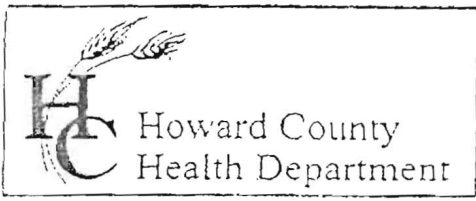
NON-BUILDABLE  
PRESERVATION PARCEL B  
JUNIOR COUNTY LAND  
MANAGEMENT ASSOCIATION EASEMENT HOLDERS

NON-BUILDABLE  
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JUNIOR COUNTY LAND  
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NON-BUILDABLE  
PRESERVATION PARCEL B  
JUNIOR COUNTY LAND  
MANAGEMENT ASSOCIATION EASEMENT HOLDERS

NOTE: CONSTRUCTION OF THE BRIDGE ABOVE I-8  
SHALL BE DEFERRED UNTIL THE CONSTRUCTION AREA  
HAS BEEN PERMANENTLY STABILIZED.





3525 H Ellicott Mills Drive, Ellicott City, MD 21043  
(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

### TO ALL INTERESTED PARTIES

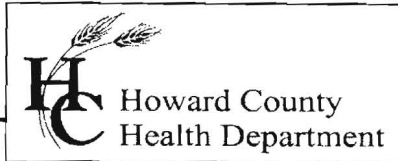
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- The well site has been staked by Benchmark Engineering  
(professional land surveyor or company employing professional land surveyors)  
on 12-14-05 (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 6/10/03

33 Lots for D. R. Horton  
Surnbury Grove



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 Beilenson, M.D., M.P.H., Health Officer*

August 21, 2009

Shawn & Lusan Abrams  
7500 Grace Drive  
Clarksville, MD 21044

RE: The Preserve at Clarksville, Lot 11  
12614 Grovewood Court  
BP #: B0001839  
Well Permit # HO-95-0233

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 10/15/09.** **Final approval of the well line connection to the dwelling was approved on 08/21/09.**

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, Beta and VOC samples were also collected on 3/14/06. As reported on 03/28/06, the Gross Alpha and Gross Beta results were both below the maximum limit suggested by the EPA. The VOC samples were free of contaminants to the limit of detection. No additional testing **for these parameters** will be required to secure the future Use and Occupancy.

#### **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-95-0233. 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: 08/14/09 & 8/18/09  
Date of Gross Alpha & Beta and VOC Samples: 03/14/06  
Date of Well Completion: 03/15/06

Approving Authority,  
*Stuart F. Oster*  
Stuart F. Oster, R. S.  
Well & Septic Program

cc: Saslow Homes, Faxed to 4105496498  
Building Inspector's Office  
Community Health Services  
File



TRACE LABORATORIES, INC  
 A Methode Electronics, Inc. Company  
 5 North Park Drive  
 Hunt Valley, MD 21030 USA  
 Telephone: 410/584-9099 / Fax: 410/584-9117  
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory # 318

**CERTIFICATE OF ANALYSIS**

**Requester:**  
 Saslow Homes  
 Attn: Jeff Ridgely  
 7241 Norris Avenue  
 Sykesville, Maryland 21784

**S/O Number:** 73646  
**Report Date:** August 17, 2009

**Property Sampled:** 12614 Grovewood Court

**County:** Howard  
**Subdivision:** Preserve at Clarksville  
**Lot #:** 11  
**Building Permit #:** Not Provided

**Tax Map #:** 34  
**Parcel #:** 77

**Date/Time Collected:** August 14, 2009 at 11:43 am  
**Date/Time Received:** August 14, 2009 at 1:55 pm

**Sample Location:** Powder Room Tap  
**Sampler ID:** 5745KC

**Samples Iced:** Yes  
**Residual Cl<sub>2</sub>** <0.1 mg/L: Yes

**Well Tag Number:** Tag not visible  
**Well Condition:** 2-Piece Cap  
 5 Bolts Missing  
 Cap Tight

**Water Conditioning/Treatment:** None

PARAMETER	RESULT	METHOD	MCL/*SMCL	
Nitrate	<1.0 mg/L as N	SM 4500D	10 mg/L as N	Pass
Turbidity	3.7 NTU	EPA 180.1	10 NTU	Pass
pH	8.1 Units	EPA 150.1	*6.5-8.5 Units	***
Sand	Negative		Negative	
Total Coliform	PRESENT	SM 9223B	Absent	FAIL
E.coli	Absent	SM 9223B	Absent	

Allison R. Milburn  
 Manager-Drinking Water Testing

MCL=Maximum Contamination Level  
 \*SMCL=Secondary Maximum Contamination Level  
 \*\*\*A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.



TRACE LABORATORIES, INC  
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 5 North Park Drive  
 Hunt Valley, MD 21030 USA  
 Telephone: 410/584-9099 / Fax: 410/584-9117  
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory # 318

**CERTIFICATE OF ANALYSIS**

**Requester:**  
 Saslow Homes  
 Attn: Jeff Ridgely  
 7241 Norris Avenue  
 Sykesville, Maryland 21784

**S/O Number:** 73646 - 1  
**Report Date:** August 19, 2009

**Property Sampled:** 12614 Grovewood Court, Retest

**County:** Howard  
**Subdivision:** Preserve at Clarksville  
**Lot #:** 11  
**Building Permit #:** Not Provided

**Tax Map #:** 34  
**Parcel #:** 77

**Date/Time Collected:** August 18, 2009 at 1:32 pm  
**Date/Time Received:** August 18, 2009 at 3:45 pm

**Sample Location:** Powder Room Tap  
**Sampler ID:** 5745KC

**Samples Iced:** Yes  
**Residual Cl<sub>2</sub> <0.1 mg/L:** Yes

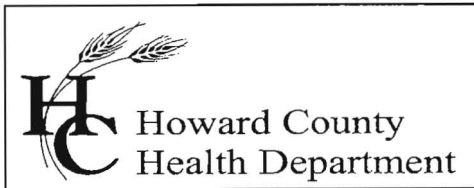
**Well Tag Number:** Tag not visible  
**Well Condition:** 2-Piece Cap  
 Satisfactory

**Water Conditioning/Treatment:** None

PARAMETER	RESULT	METHOD	MCL/*SMCL	
Total Coliform	Absent	SM 9223B	Absent	Pass
E.coli	Absent	SM 9223B	Absent	Pass

Allison R. Milburn  
 Manager-Drinking Water Testing

MCL=Maximum Contamination Level  
 \*SMCL=Secondary Maximum Contamination Level  
 \*\*\*A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.



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

July 6, 2006

D. R. Horton, Inc.  
1370 Picardi Drive  
Rockville, Maryland 20850

RE: Water Sample Results  
Lot 10 Turnbury Grove  
HO - 95 - 0233  
11

To Whom it May Concern:

During the recent "yield test" of the well serving the future Lot 10 (located on Grovewood Court), a sample was collected for volatile organic compounds (VOC's) on March 14, 2006. This testing was performed to establish a baseline evaluation of the well water supply due to known VOC ground water contamination concerns previously documented (during the 1990's and earlier) in properties nearby this development.

Results from this sampling were free of all tested VOC's to the limit of detection for the test method employed. Similar findings were noted for corresponding Field and Trip Blank samples. With respect to these parameters, the future well water supply is **currently** safe for all uses.

A copy of the VOC test report is enclosed for your records.

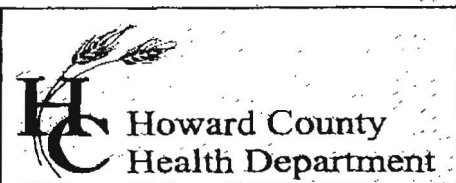
If questions should arise, you may contact Stuart Oster of the Well & Septic Program at (410) 313 - 1771 or me at (410) 313 - 1773.

Sincerely,

Bert Nixon, Assistant Director  
Bureau of Environmental Health

Enclosure

cc: Lot 10 Turnbury Grove Property File



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

May 8, 2006

D.R. Horton  
1370 Piccard Drive  
Rockville, MD 20850

RE: Turnbury Grove Subdivision, Lot 11

Well Tag: HO-95-0233

To Whom It May Concern:

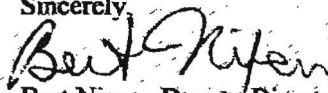
A sample was collected from a yield test on March 14, 2006 and submitted to GPL Laboratories to assess the possible presence of Gross Alpha and Gross Beta in the future well water supply. Gross Alpha and Gross Beta measure the total alpha and beta particle activity in a water supply. These naturally 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  $9.5 \pm 1.1$  picocuries/liter (pCi/L); while the Gross Beta level was  $5.8 \pm 0.9$  pCi/L. The Gross Alpha result was below its maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta level was below its MCL of 50 pCi/L.

Since both the Gross Alpha and Gross Beta were below their respective MCL's, no additional testing for Radium will be necessary prior to occupancy. Keep in mind that standard water tests to satisfy Use & Occupancy requirements 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, Deputy Director  
Bureau of Environmental Health

BN/bn

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

Send Report To:

State of Maryland  
 DHMH - Laboratories Administration  
 Division of Environmental Chemistry  
**RADIATION LABORATORY**

5/8

201 W. Preston Street, Baltimore, Maryland 21201  
 J. Mehsen Joseph, Ph.D., Director

**LABORATORY ANALYSIS REQUEST**

Sample Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_ Field Blank Bottle No. 1: \_\_\_\_\_ No. 2: \_\_\_\_\_

Plant/Site Name: Turnberry Grove County: HOWARD  
 Sample Source: Well Lot 10 → Location: H0-95-0233  
(well no., lab sink, sample tap, etc.)

County:   Plant No.            
 Collector: GAC Telephone No.: 410 313 1773

Date Collected: 3/14/06 Time Collected: 10 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 Reported
✓	Gross Alpha	4000	603108-010	95 ± 11	4/21/06
✓	Gross Beta	4100		5.8 ± 0.9	
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank #1	4004			
	Field Blank #2	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: \_\_\_\_\_  
 Section Chief: \_\_\_\_\_

Analytical Summary Report

Client Name:	Howard County Health Department	Client Sample ID:	HOGCTG10314R
Sample Date/Time:	3/15/2006	Lab Sample ID:	603108-010-010-1/1
Receipt Date/Time:	3/15/2006	Sample Matrix:	WATER
Prepared Date/Time:		Analytical Method:	ALPHA/BETA BY METHOD 900.0

Isotope	Result	Uncertainty $1\sigma$	MDA	Q
Gross Alpha	9.4648 pCi/L	$\pm 1.0634$ pCi/L	1.1835 pCi/L	
Gross Beta	5.849 pCi/L	$\pm 0.8594$ pCi/L	3.0293 pCi/L	

Send Report To:

Howard County Health Department  
Bureau of Environmental Health  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046

State of Maryland  
DHMH - Laboratories Administration  
Division of Environmental Chemistry  
**TRACE ORGANICS SECTION**  
201 W. Preston Street, Baltimore, Maryland 21201  
J. Mehsen Joseph, Ph.D., Director

Lab No. Date Received

961331 MAR 14 08

Do not write above this line

**LABORATORY ANALYSIS REQUEST**

Bottle No: HOGCTG103145(A)E(B) Plant/Site Name: Turnberry County: HOWARD

Sample Source: Groverwood (+) Street lot 11 Town or City Location: HO-95-0233  
(well no., lab sink, sample tap, etc.)

Sampler ID: 277460 PWSID:  Plant ID:

Collector: G. Crighton 410 313 2775  
(include telephone number)

Date Collected: 3/14/2006 Time Collected: 10 a.m. \_\_\_\_\_ p.m.

Field Preserved: Yes No Preservative Used:  1:1 HCl+Ascorbic acid  Na<sub>2</sub>SO<sub>4</sub>  6 mg NH<sub>4</sub>Cl

Sample Type:  Drinking Water  Landfill  Source (Raw Water)  Liquid  
 Community  Stream  Distribution (Treated)  Solid  
 Non-Community  Sediment  Water Treatment Plant POE  Other \_\_\_\_\_  
 Private

Specify Program:  SDWA  NPDES  CWA  RCRA  Consumer Products  Other \_\_\_\_\_

Test Requested:  Trihalomethanes  Volatiles  Semi-volatiles  Haloacetic Acids

FIELD DATA: 6.8 do do  
pH Free Cl Total Cl

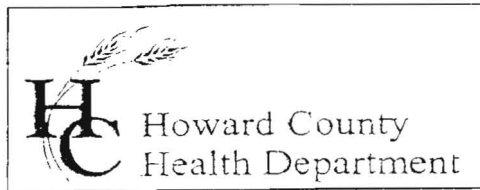
Field Blank Bottle No.: HOGCTG1031410TB  
Trip Blank Bottle No.: HOGCTG1031410TB

Remarks: Full DW Scan Incl. MTBE

Section Chief: [Signature] Date Reported: 3/28/06

•Phone: (410) 767 - 5643 •Fax: (410) 333 - 5237

Form Revised 12/00  
DHMH 4362



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](http://www.hchealth.org)

---

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

November 21, 2005

**RE:**

To Whom It May Concern:

Previous findings from a pilot study conducted by Maryland Geological Survey and Maryland Department of the Environment (MDE) have found elevated levels of naturally occurring radioactive elements in groundwater from and underground rock formation, the Baltimore Gneiss. As a result of this study, we have verified that your subdivision is located within the Baltimore Gneiss testing area. We are in the process of notifying existing properties of this study, plus developers building developments within this formation.

All wells within this area are being sampled for Gross Alpha and Gross Beta particles. These particles measure the alpha and beta activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e. Radionuclides) that may exist in your water supply. These particles are measured in picocuries per liter (pCi/L) and several have EPA established maximum contaminant levels (MCL's). The standards define the maximum permissible level of a contaminant legally allowed in water taking into account the public health risk, available treatment technology and costs of treatment.

From this point forward, we will require that all new subdivisions and properties within this formation to be tested during yield tests or prior to issuance of the Intern Certificate of Potability (ICOP). In the event that elevated levels are detected, appropriate treatment will be needed to help secure the ICOP and occupancy by the resident(s).

Please call this office at (410) 313-1773 if you have any further questions or concerns.

Sincerely,

Bert Nixon, Assistant Director  
Bureau of Environmental Health

Eric Dougherty, MDE, Water Mgmt., Groundwater

State of Maryland  
 DHMH - Laboratories Administration  
 Division of Environmental Chemistry  
**TRACE ORGANICS SECTION**  
 201 W. Preston Street, Baltimore, MD 21201  
 John M. DeBoy, Dr. P.H., Director

## Certificate of Analysis - Volatiles

Sample Name: 961331 HOGCTG10314SB      Method: EPA 524.2  
 Date Analyzed: 03/23/06

<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
TRIHALOMETHANES				UNREGULATED			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
REGULATED				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	ND	tert-Butylbenzene	0.5	na	ND
				sec-Butylbenzene	0.5	na	ND
				Bromochloromethane	0.5	na	ND
				1,1,1,2-Tetrachloroethane	0.5	na	ND
				1,2-Dibromoethane	0.5	na	ND
				Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
				Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
				tert-Amyl Methyl Ether (TAME)	0.5	na	ND

\*All results are in parts per billion (ppb)  
 ND = Less than the detection limit  
 na = not applicable  
 e = estimated value

Section Chief: Deborah Miller-Duer      Date Approved: 3/28/06

State of Maryland  
 DHMH - Laboratories Administration  
 Division of Environmental Chemistry  
**TRACE ORGANICS SECTION**  
 201 W. Preston Street, Baltimore, MD 21201  
 John M. DeBoy, Dr. P.H., Director

## Certificate of Analysis - Volatiles

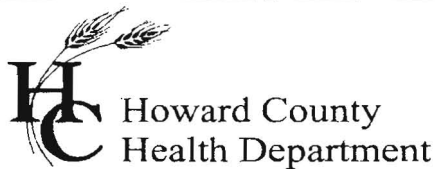
Sample Name: 961331 FB Method: EPA 524.2  
 Date Analyzed: 03/23/06

<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
TRihalomethanes				UNREGULATED			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
REGULATED				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
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Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
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1,2,4-Trichlorobenzene	0.5	70	ND	tert-Butylbenzene	0.5	na	ND
				sec-Butylbenzene	0.5	na	ND
				Bromochloromethane	0.5	na	ND
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				1,2-Dibromoethane	0.5	na	ND
				Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
				Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
				tert-Amyl Methyl Ether (TAME)	0.5	na	ND

\*All results are in parts per billion (ppb)  
 ND = Less than the detection limit  
 na = not applicable  
 e = estimated value

Section Chief: Richard Miller, Jr. Date Approved: 3/28/06





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](http://www.hchealth.org)

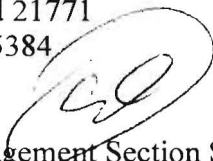
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**Penny E. Borenstein, M.D., M.P.H., Health Officer**

February 8, 2006

**MEMORANDUM**

TO: Joseph L. Mayne Well Drilling  
5512 Ridge Road  
Mt. Airy, Maryland 21771  
Faxed to 301-829-5384

FROM: Stuart Oster, R.S.   
Groundwater Management Section Supervisor  
Well and Septic Program

RE: File Number: P-05-013  
Title: Turnbery Grove

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The Health Department requires that all the wells in this subdivision be tested for radium and V.O.C.'s (Volatile Organic Contaminants). The optimum time to sample would be when the yield test is being completed. When contacting this office about the yield test, please mention that these water test need to be collected. Also, attached is a letter dated November 21, 2005 from Bert Nixon further explaining the radium testing.

Cc: D. R. Horton, Inc.  
File