



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

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

June 29, 2007

Winchester of Howard County  
6905 Rockledge Drive  
Suite 800  
Bethesda, Maryland 20817

RE: **Riverwood Lot 3**  
Well Tag: HO - 94 - 4004

To Whom It May Concern:

A sample was collected from a yield test on May 29, 2007 and submitted to the Department of Health & Mental Hygiene Laboratory 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  $17.0 \pm 3.0$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $12.0 \pm 3.0$  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**, **Gross Beta** and **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.

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, Acting Director  
Bureau of Environmental Health

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: 40-94-4004 No. B: \_\_\_\_\_ Field Blank Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_

Plant/Site Name: Riverwood Lot 3 County: Howard

Sample Source: Castle bridge rd. Location: 40-94-4004  
(well no., lab sink, sample tap, etc.)

County:  1  3 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: 5/29/07

Time Collected: 11 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No

Iced: Yes  No

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

Remarks: Sample collected @ yield test pH Chlorine

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000			
✓	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: \_\_\_\_\_