

C1 6576

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)

COUNTY NUMBER

1516084

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE RECEIVED MM DD YY

11/18/05

22 400 26 (TO NEAREST FOOT)

OK 10/26/05 GAE

H10-95-0011

OWNER Winchester Farms last name first name STREET OR RFD Castle bridge Rd TOWN Clarksville SUBDIVISION Runway 1 SECTION 29/4/20 LOT 26

WELL LOG

Not required for driven wells

GROUTING RECORD

yes no

WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 27 NO. OF POUNDS 2700

GALLONS OF WATER 162

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 65 ft. (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST CO PL OT STEEL CONCRETE PLASTIC OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot) 5 6 84

OTHER CASING (if used)

diagram diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below

ST BR HO PL OT STEEL BRASS BRONZE PLASTIC OPEN HOLE OTHER

DEPTH (nearest ft.)

1 2 82 400 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51

SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to

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 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 5

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 22 ft.

WHEN PUMPING 166 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) 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)

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 YES NO 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 W D 040 DRILLERS SIGNATURE

LIC. NO. 1 A W D 7 5 8

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

B 1 1451

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-95-0011

522426

please type

fill in this form completely

OWNER INFORMATION: Date Received (APA) 9970, Winchester Homes, Inc, 6905 Rockledge Drive, Suite 800, Bethesda, Md 20817

LOCATION OF WELL: Howard County, Riverwood Phase I, Clarksville, Castlebridge Road

DRILLER INFORMATION: George F. Easterday, L. Franklin Easterday, Inc, 9265 Brown Church Rd., MT. Airy, Md. 21771

WELL INFORMATION: APPROX. PUMPING RATE 5 GAL. PER MIN., AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY, USE FOR WATER: DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL: Howard County, Md, Date Issued 6/1/05, CO SIGNATURE, EXP. DATE 8/1/06

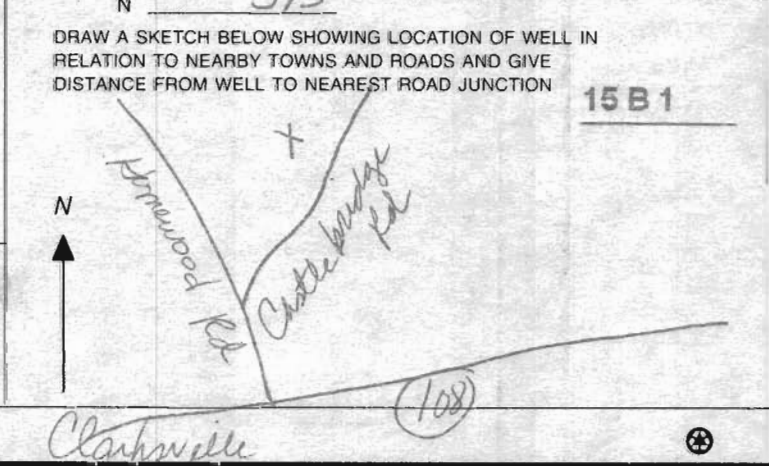
USE FOR WATER: DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION (circled), FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION), INDUSTRIAL, COMMERCIAL, DEWATERING, PUBLIC WATER SUPPLY WELL, TEST, OBSERVATION, MONITORING, GEO-THERMAL

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

SOURCES OF DRILLING WATER: wells, WRITE THE BOX NUMBER FROM THE MAP HERE: 510, 827, 515, 820

METHOD OF DRILLING: BORED (or Augered), AIR-ROTARY (circled), CABLE, JETTED, AIR-PERCussion, ROTARY (Hydraulic Rotary), Drive-POINT

REPLACEMENT OR DEEPEMED WELLS: 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



Not to be filled in by driller (MDE OR COUNTY USE ONLY): APPROP. PERMIT NUMBER HO 2024 G, PERMIT No HO-95-0011

SPECIAL CONDITIONS: Note: APPROVING AGENCIES SHOULD USE SEPARATE SHEET IF NEEDED

7-25-05

8:00

FIELD DATA SHEET  
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 95-0011  
 Location of property (road) Castlebridge Rd  
 Subdivision Riverview I Lot 26 Block 4 Plat 29 sec Ave 20  
 Well Driller Easterday's Owner Winchester Homes  
 Depth of well 400 - 89 gm  
 Distance of measuring point (M.P.) above ground 2 FT  
 Static water level (S.W.L.) below M.P. 22 FT

I. High rate pumping -- reservoir drawdown

Time pump started 10:15 Pumping rate 15 gpm  
 Total time \_\_\_\_\_ to reach pumping water level \_\_\_\_\_ ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL below M.P.	PUMPING RATE time to fill 4 gallon bucket	FLOW METER READING (if used) Pump set 380'	CALCULATED FLOW (gallons per minute)	
10:30	88 FT	4 sec		15 gpm	
10:45	114	4		15	
11:00	128	4		15	
11:15	140	4		15	
11:30	166	12 sec		5 gpm	
11:45	166	12 sec		5 gpm	
12:00	166	12 sec		5 gpm	
12:15	166	12 sec		5 gpm	
12:30	166	12 sec		5 gpm	
12:45	166	12 sec		5 gpm	
1:00	166	12 sec		5 gpm	
1:15	166	12 sec		5 gpm	
1:30	166	12 sec		5 gpm	

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 FAX: (410)313-2643



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: NATIONAL WATER SVC Telephone #: 301-854-1333
Address: PO BOX 138
ASTON, MD 20861

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): DAVID RYCKE License # PA 0145

\*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: Winchester Telephone #:
Subdivision: Riverwood Lot #: RC Well Tag #: HO-95-0011
Site Address: 4865 CASTLE BRIDGE RD
ELLICOTT CITY

Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: GRUNDfos Make: Campbell Two piece watertight cap: [checked]
Model #: 15SDG10-250 Model #: PA 800 Screened, vented well cap: [checked]
Pump Capacity 15 GPM Depth: 48 (36" min) Cap secured to casing: [checked]
Well Yield: 5 GPM NSF approved: YES Conduit min 18" B.G.: [checked]
Depth of well encountered at time of pump installation: 400 (feet) Conduit secured to well cap: [checked]
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 CPS
Safety rope, if used; attached to inside of well casing with eye bolt N/A

Piping to house
Type: Poly
PSI: 160 (160 psi min)
Depth of supply line: 4' (36" min)

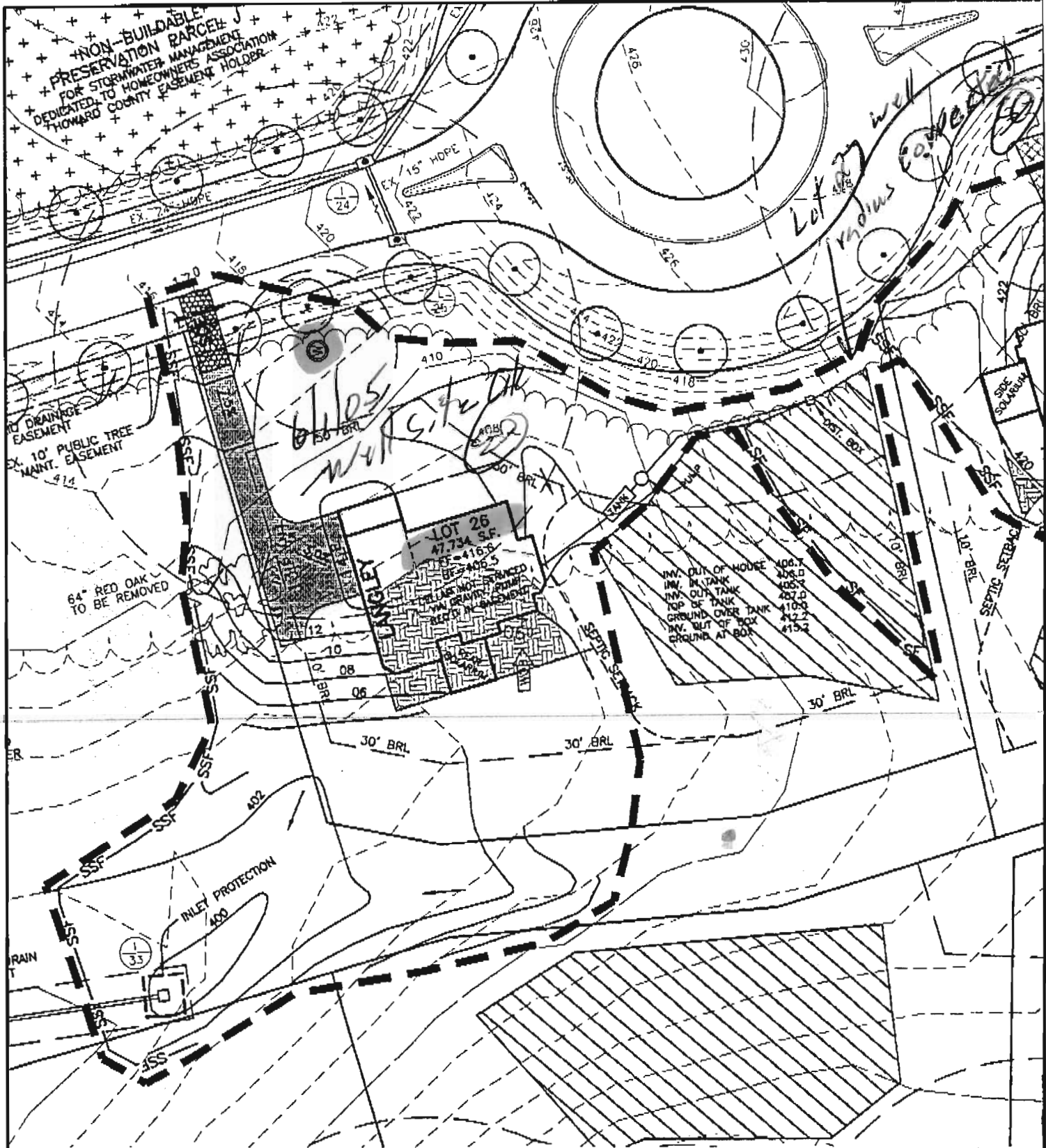
House Connection
PVC sleeved to undisturbed soil at wall penetration: YES
Approximate length of sleeve: 5'
Sleeve caulked and sealed properly: YES

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 date 1-4-11

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

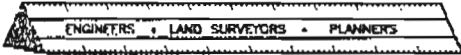
Date Insp. Requested: Date Insp. Approved: 1/7/2011 KW/BB
Inspection Data: Pitless adapter and water supply line at least 36" below grade [checked]
Two piece cap installed and attached to casing securely [checked]
Elec. conduit extends at least 18" below grade/attached to cap properly [checked]
Safety rope installed inside of well casing [checked]
Correct well tag attached properly and casing 8" above finished grade [checked]
Water supply line sleeved adequately at house connection [checked]
Adequate grout observed below pitless adapter [checked]



RIVERWOOD

LOT 26

BENCHMARK



ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043

PHONE: 410-465-6105 FAX: 410-465-6844  
 P:\1132 Homewood\DWG\7091\Riverwood\5/25/2005 4:36:27  
 tnc, Kvoceva Mita KM-2530 KX.pc3

THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 50' DATE: 10/12/04  
 REVISED: 3/29/05, 5/25/05



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

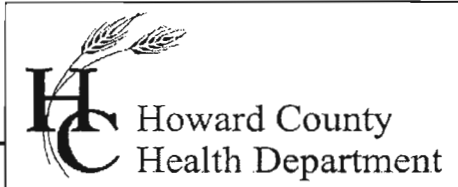
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- The well site has been staked by Engineer Benchmark  
 (professional land surveyor or company employing professional land surveyors)  
 on 4/11/05 (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

Riverwood Phase I  
 Lots 11, 24-33, 42  
 preservation parcel 0



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

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

January 24, 2011

Homeowner  
4865 Castlebridge Road  
Ellicott City, MD 21042

RE: Riverwood, Lot 26  
4865 Castlebridge Road  
BP #: B10002544  
Well Tag: HO-95-0011

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 01/07/2011. Final approval of the well line connection to the dwelling was approved on 01/07/2011.**

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 also collected on 01/12/2011. Results showed a Gross Alpha level of **4.1 +/- 1.2 pCi/L** and **Gross Beta** level of **2.1 +/- 1.1 pCi/L**. The **Gross Alpha** was below the maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta was below the MCL of 50pCi/L. Future well water supply appears safe for all uses.

Enclosed with this certificate, is a copy of the septic permit and the as-built along with important information regarding the use and maintenance of your septic system. Please read through carefully and thoroughly. Any questions regarding your well and/or septic, please call this office for guidance 410-313-1771.

#### **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-95-0011. 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) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

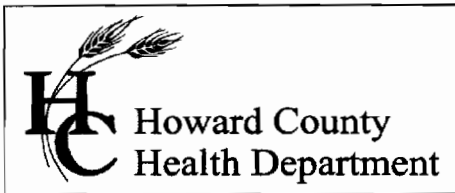
Date of Water Samples: 01/06/2011, 01/12/2011  
Date of Radium Samples: 01/12/2011  
Date of Well Completion: 07/18/2005

Approving Authority,



Brian Baker, R.S.  
Environmental Sanitarian  
Well & Septic Program

cc: Building Inspector's Office  
Community Hygiene Program  
File



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

August 25, 2010

Sylkie Knuppel, P.E.  
Development Manager  
Winchester Homes, Inc.  
6905 Rockledge Dr, Suite 800  
Bethesda, MD 20817

**RE: 4865 Castlebridge Road, Riverwood II subdivision, Lot 26**  
**Well tag: HO-95-0011**

Dear Ms. Knuppel,

A sample was collected from a yield test on July 25, 2005 and submitted to the Department of Health and Mental Hygiene 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. In turn, this can provide information regarding naturally occurring radiation (i.e., Radionuclides) that may exist in your area of development within the County. Your organization may have received a letter of notification (August 3, 2005) advising you of the following results at the subject property.

Results from the screening revealed a **Gross Alpha** of  $20 \pm 3$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $15 \pm 2$  pCi/L. The **Gross Alpha** result exceeded its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its target value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

As the **Gross Alpha** finding exceeded its **MCL**, additional testing for **Gross Alpha, Gross Beta (short-term and long-term), and Radium** will be necessary prior to issuance of an Interim Certificate of Potability (ICOP), in essence prior to Use and Occupancy. You may choose to test either (A) a raw water sample, or (B) a post-treatment sample. The analysis of each water sample requires approximately one month.

Should you choose to install a treatment system, an agreement for installation and maintenance must be signed by a representative of your organization and the Director, Bureau of Environmental Health, and then recorded at Howard County Land Records. The agreement is attached with this letter. This agreement must be recorded prior to issuance of the ICOP.

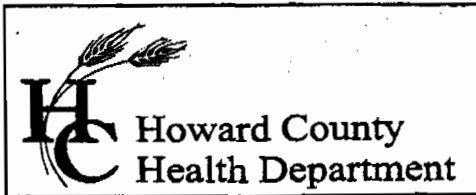
A copy of the treatment agreement is attached. Please call this office at 410-313-1771 if you have any further questions.

Sincerely,

Robert Bricker, RS/REHS  
Environmental Sanitarian Supervisor  
Well and Septic Program  
410-313-2691

Enclosure: 1

Copy: Well and Septic 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](http://www.hchealth.org)

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

August 3, 2005

Winchester Homes, Inc.  
6905 Rockledge Drive, Suite 800  
Bethesda, MD 20817

RE: Riverwood Subdivision, lot 26  
Castlebridge Road

Well Tag: HO-95-0011

To Whom It May Concern:

A sample was taken from a yield test on July 25, 2005 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 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.

Results from this screening revealed a Gross Alpha of  $20 \pm 3$  picocuries/liter (pCi/L); while the Gross Beta level was  $15 \pm 2$  pCi/L. The Gross Alpha result was above the maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta was below the MCL of 50 pCi/L.

Since the Gross Alpha results of the yield test were above the MCL, additional testing of the well water will be necessary to determine if radium is the primary contributor to the elevated Gross Alpha in your water supply. This additional information will be useful in determining appropriate and effective treatment AND will be required prior to any use and occupancy approval. Please schedule a retest for gross alpha/gross beta and a sample for Radium 226/228 prior to the time the ICOP is issued for this property.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 number if you have any further questions or concerns.

Sincerely,

Bert Nixon, Assistant Director  
Bureau of Environmental Health

Eric Dougherty, MDE, Water Mgmt., Groundwater  
Well & Septic Property File

# FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

113 Old Town Rd., Westminster, MD (410) 848-1013 (410) 870-4554 FAX (410) 848-0298

## REPORT OF ANALYSIS

Laboratory ID #: 78111	Account #: 3123
Reference: Riverwood Lot #26	Company: National Water Servicing
Location: 4865 Castle Bridge Road	Requested By: Dave Rycke
Ellicott City, MD 21042	Source: Well Water
Date/ Time Collected: 1/6/2011 1041	Site: Pressure Tank
Date/Time Rec'd: 1/6/2011 1338	Treatment: Softener/Sediment Filter/Neutralizer**
Chlorine ppm: Prec: ND Total: ND	pH: 6.8
Collected By: J.Yeager 6176JY	Well #: HO-95-0011

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME ANALYSIS
Bacteria, Coliform, Total, MPN	1.0	MPN/ 100 ml	<1.0	SM18 9223	1/7/2011 / 0800 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/7/2011 / 0800 / KME
Nitrate	2.20	mg/L	10	601	1/6/2011 / 1505 / CCH
Turbidity	1.28	NTU	<10	SM18 2130B	1/6/2011 / 1510 / CCH
Sand	NS	mg/L	5	Visual/Gravimetric	1/6/2011 / 1510 / CCH

### 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 Visual well check: Sealed, vented cap
- 9 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : 10002544

Date Reported: 1/7/2011

# FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd., Westminster, MD (410) 848-0114 FAX: (410) 848-0298

## REPORT OF ANALYSIS

Laboratory ID #:	78167	Account #:	3123
Reference:	Riverwood Lot #26	Company:	National Water Servicing
Location:	4865 Castlebridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	1/12/2010 1020	Source:	Well Water
Date/Time Rec'd:	1/12/2010 1119	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	Prior to Softener/Sed. Filter/Neutralizer
Collected By:	J. Yeager 6176JY	pH:	7.1
		Well #:	HO-95-0011

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/13/2011 / 0830 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/13/2011 / 0830 / KME

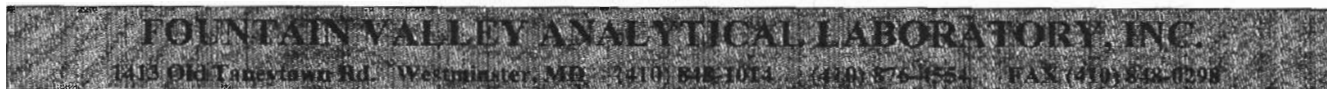
### NOTES

- 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 Visual well check: Sealed, vented cap
- 5 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy  
 Building Permit # : 10002544

Date Reported: 1/13/2011

253-928-2740



### REPORT OF ANALYSIS

Laboratory ID #:	78168	Account #:	3123
Reference:	Riverwood Lot #26	Company:	National Water Servicing
Location:	4865 Castlebridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	1/12/2010 1020	Source:	Well Water
Date/Time Rec'd:	1/12/2010 1119	Site:	Test Port (Post-Treatment)
Chlorine ppm:	Free: ND Total: ND	Treatment:	Softener/Sediment Filter/Neutralizer
Collected By:	J.Yeager 6176JY	pH:	8.6
		Well #:	HO-95-0011

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME ANALYST
Gross Alpha	4.1	pCi/L	15	900.0	1/14/2011 / 1035 / MJN
Gross Beta	<2.1	pCi/L	50	900.0	1/14/2011 / 1035 / MJN

**NOTES**

- 1 Gross Alpha Detection Limit: 1.5 pCi/L
  - 2 Gross Beta Detection Limit: 2.0 pCi/L
  - 3 pCi/L = picocuries per liter
  - 4 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
  - 5 Subcontracted to Reference Lab# 278
  - 6 ND:None Detected
  - 7 Visual well check: Sealed, vented cap
  - 8 pH and Chlorine level tested on site
- Reason for Test :** Use & Occupancy  
**Building Permit # :** 10002544

Date Reported: 1/18/2011

Send Report To:

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

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

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

**LABORATORY ANALYSIS REQUEST**

Sample Bottle No. H0GK0011 No. B: \_\_\_\_\_ Field Blank Bottle No. 1: N/A No. 2: \_\_\_\_\_

Plant/Site Name: Riverwood County: Howard

Sample Source: Well Location: H0-95-0011  
Crestbridge Lot 26 (well no., lab sink, sample tap, etc.)

County:  1  3 Plant No.

Collector: G. Creighton Telephone No.: 410 313 2775

Date Collected: 7/25/2005 Time Collected: 10:30 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Submitters Code:   Federal Project:  Field Data: ~6.0 N/A  
pH Chlorine

Remarks: pH fixed w/ HNO<sub>3</sub> to ~2.0

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0135	20 ± 3	7/27/05
✓	Gross Beta	4100	0135	15 ± 2	7/27/05
	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: 7/25/05 Section Chief: S. Wilson