

C 1 2969 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 A 520414

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 7 3 2007

Depth of Well 22 180 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" Ho 95 0704

OWNER Winchester Homes Inc STREET OR RFD Open Run Rd TOWN Ellicott City SUBDIVISION Riverwood Phase 2 SECTION LOT 59

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Sand Stone and gray granite.

GROUTING RECORD WELL HAS BEEN GROUTED (Y) NO (N) TYPE OF GROUTING MATERIAL (C) M BENTONITE CLAY (B) C NO. OF BAGS 13 NO. OF POUNDS 1922

CASING RECORD MAIN CASING TYPE (S) T Nominal diameter top (main) casing 6 Total depth of main casing 27

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

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

PUMPING TEST HOURS PUMPED 3 PUMPING RATE 20 gal. per min. METHOD USED TO MEASURE PUMPING RATE Bucket

PUMP INSTALLED DRILLER INSTALLED PUMP YES (N) 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

NUMBER OF UNSUCCESSFUL WELLS: 0

DEPTH (nearest ft.) table with columns 1-6 and rows A-E. Includes handwritten values 25 and 180.

WELL HYDROFRACTURED (Y) YES (N) NO

CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION"

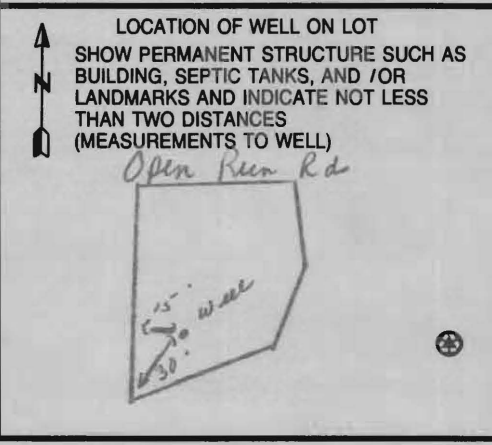
DRILLERS LIC. NO. 1 M S D 224 DRILLERS SIGNATURE Joseph E. Mayne

LIC. NO. 1 D

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



B 1 9869

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 525693 please type

STATE PERMIT NUMBER

HO -95-0704 fill in this form completely

Date Received (APA) 2/1/07

OWNER INFORMATION

Winchester Homes Inc. 6905 Rockledge Dr. Suite 800 Bethesda Md 20817

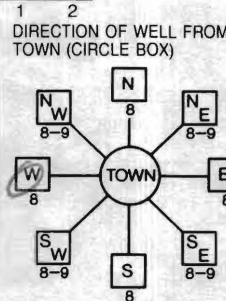
LOCATION OF WELL

Howard County Reviewwood Phase 2 Section 44 Lot 59 Elliecott City 5 miles from town

DRILLER INFORMATION

Joseph Mays MS D024 Joseph Mays Well Drilling 5512 Ridge Rd Mt Airy Md 21771 1-30-07

DIRECTION OF WELL FROM TOWN



Open Run Rd 30 feet from road on north side. Tax map: 29 BLK: 4 PARCEL 20

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 (D)
Farming (Livestock Watering & Agricultural Irrigation) (F)
Industrial, Commercial, Dewatering (I)
Public Water Supply Well (P)
Test, Observation, Monitoring (T)
Geo-Thermal (G)

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County A520414 STATE SIGNATURE DATE ISSUED 2/13/07 CO SIGNATURE EXP. DATE 2/13/08 NORTH GRID 515 000 EAST GRID 0028 000

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

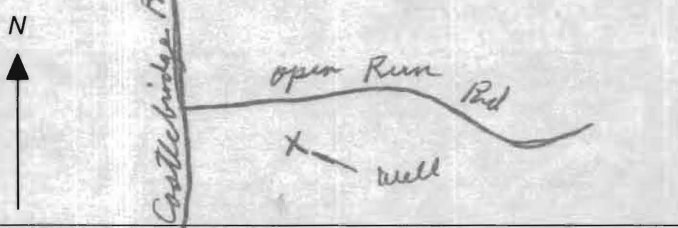
- Bored (or Augered) JETTED Jettied & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTary Drive-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- This well will not replace an existing well (N)
This well will replace a well that will be abandoned and sealed (Y)
This well will replace a well that will be used as a standby-contact local approving authority for policy on standby wells (S)
This well will deepen an existing well (D)
Permit number of well to be replaced or deepened (if available) 41

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER: 1. well
WRITE THE BOX NUMBER FROM THE MAP HERE: E 828, N 515

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



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

APPROP. PERMIT NUMBER HO2004G007 PERMIT No. HO-95-0704

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SPECS IF NEEDED NEED RADIUM SAMPLE

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 95-0704
 Location of property (road) Open Run Rd
 Subdivision Renewwood Phase 2 Lot 59 Block _____ Plat _____ Sec. _____
 Well Driller Joseph Mayne Owner Winchester Homes Inc

Depth of well 180
 Distance of measuring point (M.P.) above ground 2'
 Static water level (S.W.L.) below M.P. 21'

I. High rate pumping -- reservoir drawdown
 Time pump started 6:45 am Pumping rate 20 gpm
 Total time 5 min to reach pumping water level 28 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 <u>5</u> gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
<u>6:45 am</u>	<u>21</u>		<u>N/A</u>	
<u>7:00</u>	<u>28</u>	<u>3 sec.</u>		<u>20 gpm.</u>
<u>7:15</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>7:30</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>7:45</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>8:00</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>8:15</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>8:30</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>8:45</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>9:00</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>9:15</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>9:30</u>	<u>28</u>	<u>3</u>		<u>20</u>
<u>9:45</u>	<u>28</u>	<u>3</u>		<u>20</u>

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: NATIONAL WATER SVC Telephone #: 301-854-1333
Address: P.O. Box 138 ASHTON, 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 #: P1 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 HOMES Telephone #: 301-823-4174
Subdivision: RIVER WOOD Lot #: 59 Well Tag #: HO -
Site Address: 12057 OPEN RUN RD ELLICOTT CITY MD

Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: GRUNDFOS Make: CAMPBELL Two piece watertight cap: [checked]
Model #: 15JAE071R0 Model #: PA 800 Screened, vented well cap: [checked]
Pump Capacity 15 GPM Depth: 48" (36" min) Cap secured to casing: [checked]
Well Yield: 20 GPM NSF approved: YES Conduit min 18" B.G.: [checked]
Depth of well encountered at time of pump installation: 170 (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 CRB
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 12-17-10

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

Date Insp. Requested: Date Insp. Approved: 8/6/10 (KW)

- 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 Under Footer
Adequate grout observed below pitless adapter [checked]

Open Run Rd.

LOT 59
49,514 S.F.

LOT 60
43,423 S.F.
COMMUNITY SEPTIC LOT

2/13/07
OK (KW)
staked by
B/M

WELL

WELL
EL U MARYLAND
SEMENT HOLDER

WELL

BENCHMARK

RIVERWOOD, PHASE 2

LOT 59

FORTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

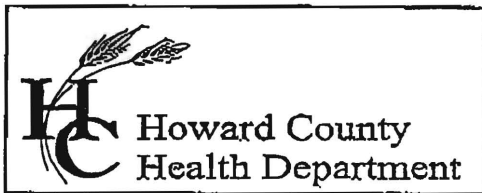
SCALE: 1" = 50' DATE: 1/24/07

ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

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

PHONE: 410-465-6100 FAX: 410-465-6644
1/25/2007 8:52:28 AM
mc, Kyocera Mita KM-2530 KX.pc3



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

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:

Riverwood Phase II 43-77 Castlebridge Rd, Hunters View Road
 Subdivision/Property Name Lot# Road Name(s)
Open Run Road & Whitson Way

The well site has been staked by Benchmark Eng,
 (professional land surveyor or company employing professional land surveyors)
 on _____ (date) and does not require a site inspection.

all lots will be staked by 12/29/06

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.

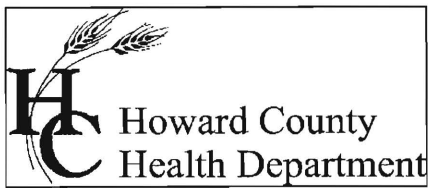
This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05

Contact is:
 Easterday's
 301-829-1440

2006 DE 18 PM 2:32

ENVIRONMENTAL HEALTH
 12/29/06



Bureau of Environmental Health
7178 Columbia Gateway Drive Columbia, Maryland 21046-2132
(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

January 11, 2011

Homeowner
12057 Open Run Road
Ellicott City, MD 21042

RE: Riverwood II, Lot 59
12057 Open Run Road
Ellicott City, MD 21042
BP# B10001280
Well Tag #: HO-95-0704

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 09/23/2010 Final approval of the well line connection to the dwelling was approved on 08/06/2010.**

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 07/03/2007. Both findings were below the maximum limit suggested by the EPA. At the time of the testing and with respect to these parameters, the future well water supply appears safe for all uses. No addition 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-95-0704. 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: 12/20/2010

Date of Samples for Gross Alpha & Gross Beta: 07/03/2007

Date of Well Completion: 07/03/2007

Approving Authority,

A handwritten signature in cursive script that reads "Brian Baker".

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

cc: Building Inspector's Office
Community Health Services
File

REPORT OF ANALYSIS

Laboratory ID #:	77947	Account #:	3123
Reference:	Riverwood Lot 59	Company:	National Water Servicing
Location:	12057 Open Run Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	12/20/2010 1200	Source:	Well Water
Date/Time Rec'd:	12/20/2010 1330	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	Sed.Filter/ Neutralizer/ Rev.Osmosis**
Collected By:	J.Yeager 6176JY	pH:	6.4
		Well #:	HO-95-0704

Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/21/2010 / 0900 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/21/2010 / 0900 / KME
Nitrate	<1.0	mg/L	10	601	12/20/2010 / 1630 / CCH
Turbidity	4.30	NTU	<10	SM18 2130B	12/20/2010 / 1510 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	12/20/2010 / 1510 / KME

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 # : B10001280

Date Reported: 12/21/2010

MD State Certification # 133



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

November 7, 2007

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

RE: Riverwood II Lot 59
Well Tag: HO - 95 - 0704

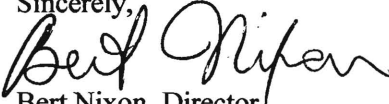
To Whom It May Concern:

A sample was collected from a yield test on July 3, 2007 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 0.9 ± 1.2 picocuries/liter (pCi/L); while the **Gross Beta** level was 4.0 ± 2.2 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 targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing **for these parameters** will be required to secure the future Use & Occupancy. However, other standard testing will still be necessary.

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

Sincerely,

Bert Nixon, 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

Howard County Health Department

Bureau of Environmental Health

7178 Columbia Gateway Drive

Columbia, Maryland 21046

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P.H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: 140-95-0704 No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Riverwood 2 Lot 59 County: Howard

Sample Source: Open on rd. Location: 140-95-0704
(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: K. Wolf

Telephone No: 410-313-2645

Date Collected: 7/3/07

Time Collected: 10:32 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project:

Field Data: _____

Remarks: Sample collected @ Yeld pH _____ Chlorine _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	<u>707013-002</u>	<u>0.9 ± 1.2</u>	<u>7/10/07</u>
✓	Gross Beta	4100		<u>4.0 ± 2.2</u>	
	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: _____

May 5, 2010

Sara Sappington
Well and Septic Program
Howard County Health Department
7178 Columbia Gateway Drive
Columbia, MD 210046

6/16/2010
my own
Recd.

Re: 12057 Open Run Road
Riverwood, Lot 59

Ms. Sappington:

I am writing to request a variance for the on-site well box area on one of our lots.

The variance is from the 10 foot setback between a lot line and a well box area. The area I am requesting a variance for is the southern side of the lot adjacent to lot 58.

We will still have the ability to maintain the well as there will be 5 feet of area between the adjoining lands and the new well box area. The well has already been drilled for this lot. The well box is for future repairs only. We feel that there is adequate room to drill at least two additional wells. The area of the variance is near to the rear property line and the well drill will have the benefit of the property corner available to help guide him to the limits of the well box or it can be staked by a surveyor.

I do not feel that any of my neighbors will be impacted by this request.

Thanks you for your time and effort on this project.

Sincerely,



Andrew Campbell

Camberley Homes