

C1 6914 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 A 520 414

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY 8 13 2007

Depth of Well 22 200 26 (TO NEAREST FOOT) PERMIT NO. FROM "PERMIT TO DRILL WELL" Ho-95-0712

OWNER Winchester Homes Inc STREET OR RFD Castlebridge Rd (4871) TOWN Ellicott City SUBDIVISION Rivewood Phase 2 SECTION LOT 67

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows: Sand Stone (0 to 67), Gray granite (67 to 200).

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (N) TYPE OF GROUTING MATERIAL (Circle one) CEMENT (CM) - BENTONITE CLAY (BC) NO. OF BAGS 16 NO. OF POUNDS 1304 GALLONS OF WATER 96 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 64 ft.

CASING RECORD

MAIN CASING TYPE (ST) Nominal diameter top (main) casing (nearest inch)! 6 Total depth of main casing (nearest foot) 70

OTHER CASING (if used) diameter inch depth (feet) PL 4 20 200

SCREEN RECORD screen type or open hole (ST) (BR) (HO) (PL) (OT)

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y) (N)

CIRCLE APPROPRIATE LETTER 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.

DRILLERS LIC. NO. 1 M S D 0 2 4 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)

DEPTH (nearest ft.) Ho 69 200

Table with columns: E A C H S R E N, rows 8-51, values for depth.

DIAMETER OF SCREEN (NEAREST INCH) 56 60

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

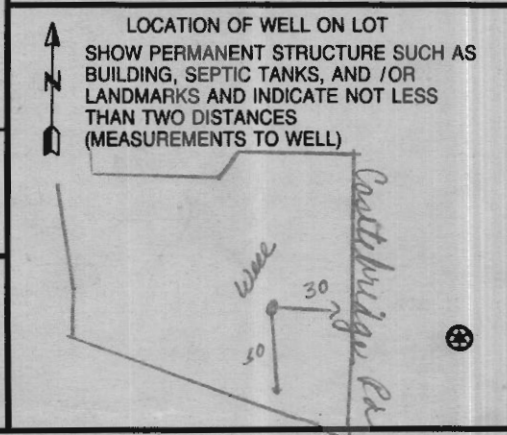
MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q 70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 15 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 12 ft. WHEN PUMPING 30 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) (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 (NEAREST FOOT)



B 1 9877
1 2 3 6

SEQUENCE NO. (MDE USE ONLY)

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

STATE PERMIT NUMBER

40-95-0712
70 fill in this form completely 79

Date Received (APA)
2/1/07
8 MM DD YY 13

OWNER INFORMATION

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

B 3 LOCATION OF WELL

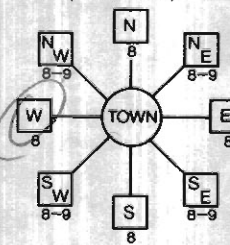
Howard
Riverwood Phase 2
Ellicott City
5 M I
MILES FROM TOWN (enter 0 if in town)

DRILLER INFORMATION

Joseph & Mayne MS DO24
Joseph & Mayne Well Drilling
5512 Ridge Rd Mt. Airy, Md 21771
Joseph & Mayne 1-30-07

B 4

1 2
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Castlebridge Rd
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



34 35 37
DISTANCE FROM ROAD ENTER FT OR MI 38 39

TAX MAP: 29 BLK: 4 PARCEL 20

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 A520414
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 2/14/07
CO SIGNATURE EXP. DATE
NORTH GRID 515 000 EAST GRID 0827 000

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

METHOD OF DRILLING (circle one)

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

REPLACEMENT OR DEEPEENED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL
 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 DEEPEEN AN EXISTING WELL

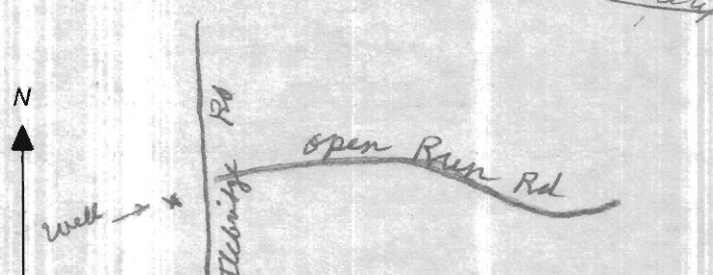
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

WRITE THE BOX NUMBER FROM THE MAP HERE

E 8247
N 5145

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



8/13/07
Radium Sample
Collected During
a Yield Test.
BB

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

APPROP. PERMIT NUMBER H02004-0007
PERMIT No. H0-95-0712

SPECIAL CONDITIONS

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

**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# PI 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 #: _____
Subdivision: RIVERWOOD Lot #: 67 Well Tag #: HO-95-0712
Site Address: 4877 CASTLEBRIDGE RD
ELLICOTT CITY, MD

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>GRUINS 705</u>	Make: <u>Campbell</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>1530E 07-180</u>	Model#: <u>PA-500</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>15</u> GPM	Depth: <u>48"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>15</u> GPM	NSF approved: <u>YES</u>	Conduit min 18" E.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>200</u> (feet)		Conduit secured to well cap: <input checked="" type="checkbox"/>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arresters or Cable guards are required - Must circle one N/A
Safety rope, if used, attached to inside of well casing with eye bolt CP5

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>Poly</u>	PVC sleeved to undisturbed soil at wall penetration: <u>YES</u>
PSI: <u>160</u> (160 psi min)	Approximate length of sleeve: <u>5'</u>
Depth of supply line: <u>4'</u> (36" min)	Sleeve caulked and sealed properly: <u>YES</u>

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 1-14-13

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

Date Insp. Requested: _____ Date Insp. Approved: 1/10/13 (K)

Inspection Data: Pitless adapter and water supply line at least 36" below grade

Two piece cap installed and attached to casing securely

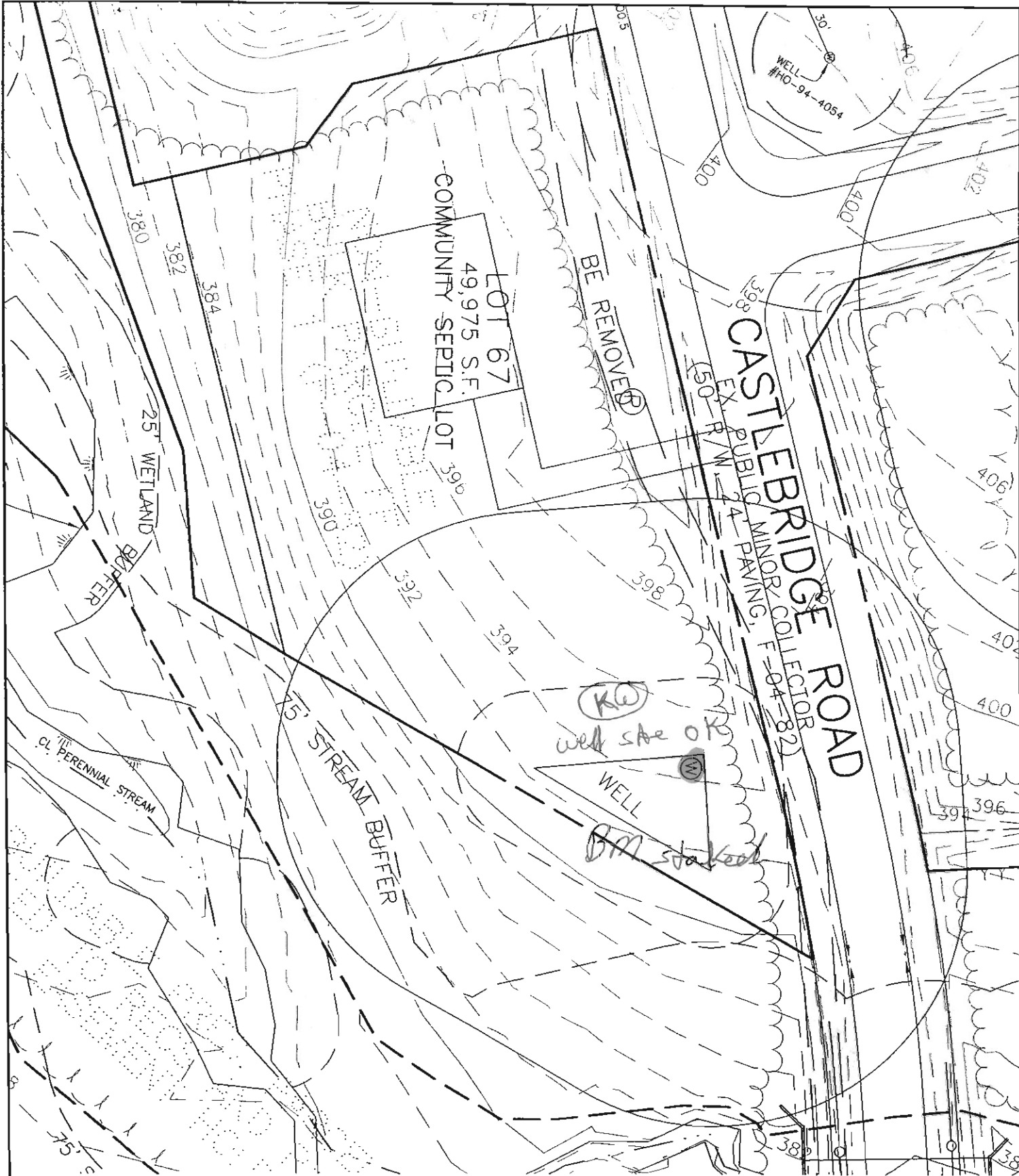
Elec. conduit extends at least 18" below grade/attached to cap properly

Safety rope installed inside of well casing

Correct well tag attached properly and casing 8" above finished grade

Water supply line sleeved adequately at house connection

Adequate grout observed below pitless adapter



BENCHMARK

ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

RIVERWOOD, PHASE 2

LOT 67

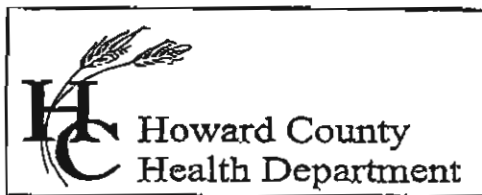
FORTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

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

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

PHONE: 410-465-6105 FAX: 410-465-6644

PA1132 Homewood 701102519 1/25/2007 8 410-465-6644
inc. 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 43-97 Castlebridge Rd, Hunters View Road
 Subdivision/Property Name Lot# Road Name
Open Run Road & Whitford Way

The well sites 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

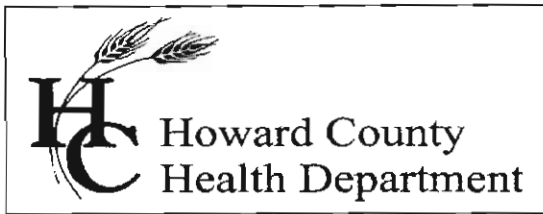
Contact is:

Easterday

301-829-1440

2006 DEC 18 PM 2:32

ENVIRONMENTAL HEALTH



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 – August 26, 2013

February 26, 2013

Homeowner
4877 Castlebridge Road
Ellicott City, MD 21042

**RE: Riverwood II, Lot 67
4877 Castlebridge Road
Building Permit: B12003336
Well Permit: HO-95-0712**

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 2/20/2013. Final approval of the well line connection to the dwelling was granted on 1/10/2013. The well construction was completed on 7/3/2007. Water samples were collected on 2/22/2013, 2/19/2013, 2/13/2013, 2/11/2013 & 2/7/2013.

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.

Gross Alpha and Beta samples were also collected on 8/13/2007. Results showed a Gross Alpha level of 9.0 ± 2.0 pCi/L and Gross Beta level of 9.0 ± 2.0 pCi/L. **This exceeds the maximum contaminant level (MCL) of 15 pCi/L and/or 50 pCi/L, respectively.**

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-95-0712. 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,



Heidi Scott, R.S.
Environmental Sanitarian
Well & Septic Program

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

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 #: 88196 Account #: 3123
Reference: Riverwood Lot 67 Company: National Water Servicing
Location: 4877 Castle Bridge Road Requested By: Dave Rycke
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 2/22/2013 1310 Site: Pressure Tank
Date/Time Rec'd: 2/22/2013 1500 Treatment: ***
Chlorine ppm: Free: ND Total: ND pH: 6.2
Collected By: C. Mooshian 7268CM Well #: HO-95-0712

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	8.14	NTU	<10	SM18 2130B	2/22/2013 / 1620 / CCH

OK
2/25/13 AB

NOTES

- 1 *** Sample collected prior to Softener/Neutralizer/Sediment Filter
- 2 NTU = Nephelometric Turbidity Units
- 3 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 4 ND:None Detected
- 5 Visual well check: Sealed, vented cap
- 6 pH and Chlorine level tested in lab

Reason for Test : Use & Occupancy

Building Permit # : 12003336

Date Reported: 2/22/2013

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 #:	88195	Account #:	3123
Reference:	Riverwood Lot 67	Company:	National Water Servicing
Location:	4877 Castle Bridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	2/22/2013 1312	Source:	Well Water
Date/Time Rec'd:	2/22/2013 1500	Site:	Test Port
Chlorine ppm:	Free: ND Total: ND	Treatment:	Softener/Neutralizer/Sediment Filter
Collected By:	C. Mooshian 7268CM	pH:	6.2
		Well #:	HO-95-0712

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
✓ Turbidity	6.91	NTU	<10	SM18 2130R	2/22/2013 / 1545 / JKW

OK
HS 2/25/13

NOTES

- 1 NTU = Nephelometric Turbidity Units
- 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: Scaled, vented cap
- 5 pH and Chlorine level tested in lab

Reason for Test : Use & Occupancy
 Building Permit # : 12003336

Date Reported: 2/22/2013

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 #:	88151	Account #:	3123
Reference:	Riverwood Lot 67	Company:	National Water Servicing
Location:	4877 Castle Bridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	2/19/2013 1220	Source:	Well Water
Date/Time Rec'd:	2/19/2013 1530	Site:	Test Port
Chlorine ppm:	Free: ND Total: ND	Treatment:	Softener/Neutralizer/Sediment Filter
Collected By:	C. Holland 0547CH	pH:	7.0
		Well #:	HO-95-0712

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	27.2	NTU	<10	SM18 2130B	2/20/2013 / 0745 / JKW

FAIL

NOTES

- 1 NTU = Nephelometric Turbidity Units
- 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 & Chlorine level tested on site

Reason for Test : Use & Occupancy
 Building Permit # : 12003336

Date Reported: 2/20/2013

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 #:	88091	Account #:	3123
Reference:	Riverwood Lot 67	Company:	National Water Servicing
Location:	4877 Castle Bridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	2/13/2013 1345	Source:	Well Water
Date/Time Rec'd:	2/13/2013 1530	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None**
Collected By:	C. Mooshian 7268CM	pH:	6.5
		Well #:	HO-95-0712

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	15.5	NTU	<10	SM18 2130B	2/14/2013 / 1045 / CCH

*Fail, reB 2/21/13
check iron content*

NOTES

- 1 **Sample Collected prior to Softener/Neutralizer/Sediment Filter
- 2 NTU = Nephelometric Turbidity Units
- 3 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 4 ND:None Detected
- 5 Visual well check: Scaled, vented cap
- 6 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy
Building Permit # : 12003336

Date Reported: 2/14/2013

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 #: 88060 Account #: 3123
Reference: Riverwood Lot 67 Company: National Water Servicing
Location: 4877 Castle Bridge Road Requested By: Dave Rycke
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 2/11/2013 1132 Site: Pressure Tank
Date/Time Rec'd: 2/11/2013 1600 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.4
Collected By: C. Mooshian 7268CM Well #: HO-95-0712

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
✓ Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	2/12/2013 / 1030 / JKW
✓ Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	2/12/2013 / 1030 / JKW
Turbidity	11.2	NTU	<10	SM18 2130B	2/12/2013 / 0805 / JKW

Bacteria OK
HS 2/24/13

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 NTU = Nephelometric Turbidity Units
- 3 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 4 ND:None Detected
- 5 Visual well check: Sealed, vented cap
- 6 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy
Building Permit # : 12003336

Date Reported: 2/12/2013

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 #:	88028	Account #:	3123
Reference:	Riverwood Lot 67	Company:	National Water Servicing
Location:	4877 Castle Bridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	2/7/2013 1000	Source:	Well Water
Date/Time Rec'd:	2/7/2013 1155	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Yeager 6176JY	pH:	6.7
		Well #:	HO-95-0712

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
X Bacteria, Coliform, Total, MPN	2.0	MPN/ 100 ml	<1.0	SM18 9223	2/8/2013 / 0800 / CCH
✓ Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	2/8/2013 / 0800 / CCH
✓ Nitrate	<1.0	mg/L	10	601	2/8/2013 / 1400 / CCH
X Turbidity	14.5	NTU	<10	SM18 2130B	2/8/2013 / 0900 / CCH
✓ Sand	NS	mg/L	5	Visual/Gravimetric	2/8/2013 / 0900 / CCH

Bacteria &
Turbidity FALL

Turbidity OK - 2/25/13
HS

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 Visual well check: Sealed, vented cap
- 8 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy
Building Permit # : 12003336

Date Reported: 2/8/2013



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 21, 2007

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

RE: Riverwood II Lot 67
Well Tag: HO - 95 - 0712

To Whom It May Concern:

A sample was collected from a yield test on August 13, 2007 and submitted to the Department of Health & 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. 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 9.0 ± 2.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 9.0 ± 2.0 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,

A handwritten signature in cursive script that reads 'Bert Nixon'.

Bert Nixon, Director
Bureau of Environmental Health

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

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

LABORATORY ANALYSIS REQUEST

R67BB950712

Sample Bottle No. A: 7 No. B: _____ Field Blank Bottle No. 1: _____ No. 2: _____

Plant/Site Name: Riverwood-Lot 67 County: Howard

Sample Source: Castlebridge Road Location: HO-95-0712
(well no., lab sink, sample tap, etc.)

County: 1 3 Plant No.

Collector: Brian Baker Telephone No.: (410) 313-2643

Date Collected: 8/13/2007 Time Collected: 10 a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

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

Remarks: Sample Collected During Yield Test

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0396	9±2	08/16/07
✓	Gross Beta	4100	0396	9±2	"
	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: 08/14/07

Section Chief: S. Wise