

C1 6928

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 A520414

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM DD YY

MM DD YY 7 26 2007

22 260' 26 (TO NEAREST FOOT)

9/26/07 OK (KW) H0 - 45 - 0689

OWNER: Wincheste Homes Inc. STREET OR RFD: Castlebridge Rd TOWN: Ellicott City SUBDIVISION: Riverwood Phase 2 SECTION: LOT: 44

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. Entries: Sand 0-109, Gray Granite 109-260.

GROUTING RECORD WELL HAS BEEN GROUTED (Y/N) TYPE OF GROUTING MATERIAL (Cement CM, Bentonite Clay BC) NO. OF BAGS 23 NO. OF POUNDS 282 GALLONS OF WATER 138 DEPTH OF GROUT SEAL 91 ft.

CASING RECORD casing types insert appropriate code below MAIN CASING TYPE ST Nominal diameter 6 Total depth 113'

OTHER CASING (if used) diameter inch depth (feet) PL 4 20, 260'

SCREEN RECORD screen type or open hole (ST, BR, HO, PL, OT) insert appropriate code below

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED: Y

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 SD 024 DRILLERS SIGNATURE: Joseph E. Mayne LIC. NO. 1 D

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

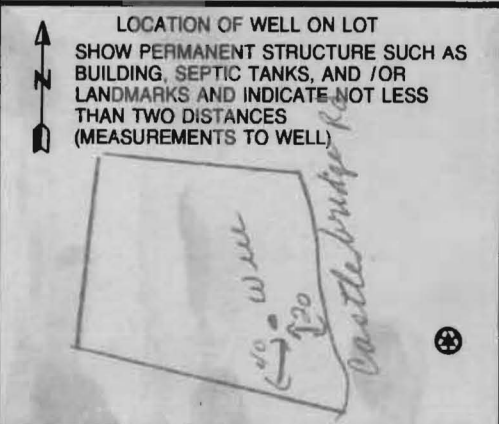
DEPTH (nearest ft.) 111 260

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.) 12 METHOD USED TO MEASURE PUMPING RATE: Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 44 ft. WHEN PUMPING 58 ft. TYPE OF PUMP USED (for test) S submersible

PUMP INSTALLED DRILLER INSTALLED PUMP (YES/NO) YES 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 2 (nearest foot)



B 1 1419

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

525693 please type

40-95-0689 fill in this form completely

Date Received (APA)

02/1/2007

OWNER INFORMATION

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

B 3

LOCATION OF WELL

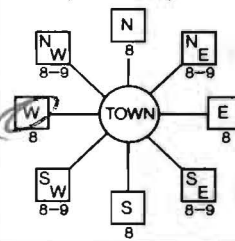
Howard County, Riverwood Phase 2, Elliott City, 5 miles from town

DRILLER INFORMATION

Joseph L Mayne, M SD 024, Joseph L Mayne Well Drilling, 5512 Ridgely Rd Mt. Airy Md 21771, Signature: Joseph L Mayne, Date: 1-30-2007

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Castlebridge Road, ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX), DISTANCE FROM ROAD 30 FT, TAX MAP: 29 BLK: 4 PARCEL 20

B 2

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 (13) A 520414, COUNTY NAME, COUNTY NO., STATE SIGNATURE, DATE ISSUED 2/13/07, CO SIGNATURE, EXP. DATE 2/13/08, NORTH GRID 511 000, EAST GRID 0827 000

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTary, JETTED AIR-PERcussion, Jetted & DRIVEN 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 DEEPEMED AN EXISTING WELL (D)

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

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

APPROP. PERMIT NUMBER H02004G007

PERMIT No. H0-95-0689

SPECIAL CONDITIONS

NEED RADIUM SAMPLE

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

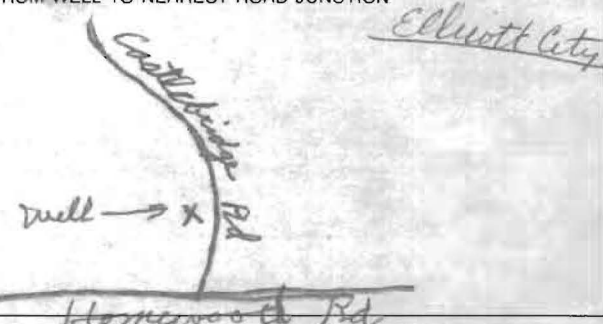
- well

WRITE THE BOX NUMBER FROM THE MAP HERE

E 8207, N 5101

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

N



7/26/07 Sample taken @ field. APS ✓

**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 Home Telephone #: 301-803-4174
Subdivision: RIVERWOOD Lot #: 44 Well Tag #: HO-95-0689
Site Address: 4809 CASTLEBRIDGE Rd
ELICOTT CITY

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>GRUNDFOS</u>	Make: <u>Campbell</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>153QE10-220</u>	Model#: <u>PA 800</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>12</u> GPM	NSF approved: <u>YES</u>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>260</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 arrestors or Cable guards are required - Must circle one <u>CPS</u>		
Safety rope, if used, attached to inside of well casing with eye bolt <u>N/A</u>		

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 8/4/11

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

Date Insp. Requested: _____ Date Insp. Approved: _____

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 _____

**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: _____ Telephone #: _____
Address: _____

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

Name (Print): _____ License# _____

***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: _____ Telephone #: _____
Subdivision: _____ Lot #: 44 Well Tag #: HO-95-0689
Site Address: 4809 Castlebridge Rd

Submersible Pump Data

Make: _____
Model #: _____
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF approved: _____

Well Cap and Electric Conduit

Two piece watertight cap: _____
Screened, vented well cap: _____
Cap secured to casing: _____
Conduit min 18" B.G.: _____
Conduit secured to well cap: _____

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

Piping to house

Type: _____
PSI: _____ (160 psi min)
Depth of supply line: _____ (36" min)

House Connection

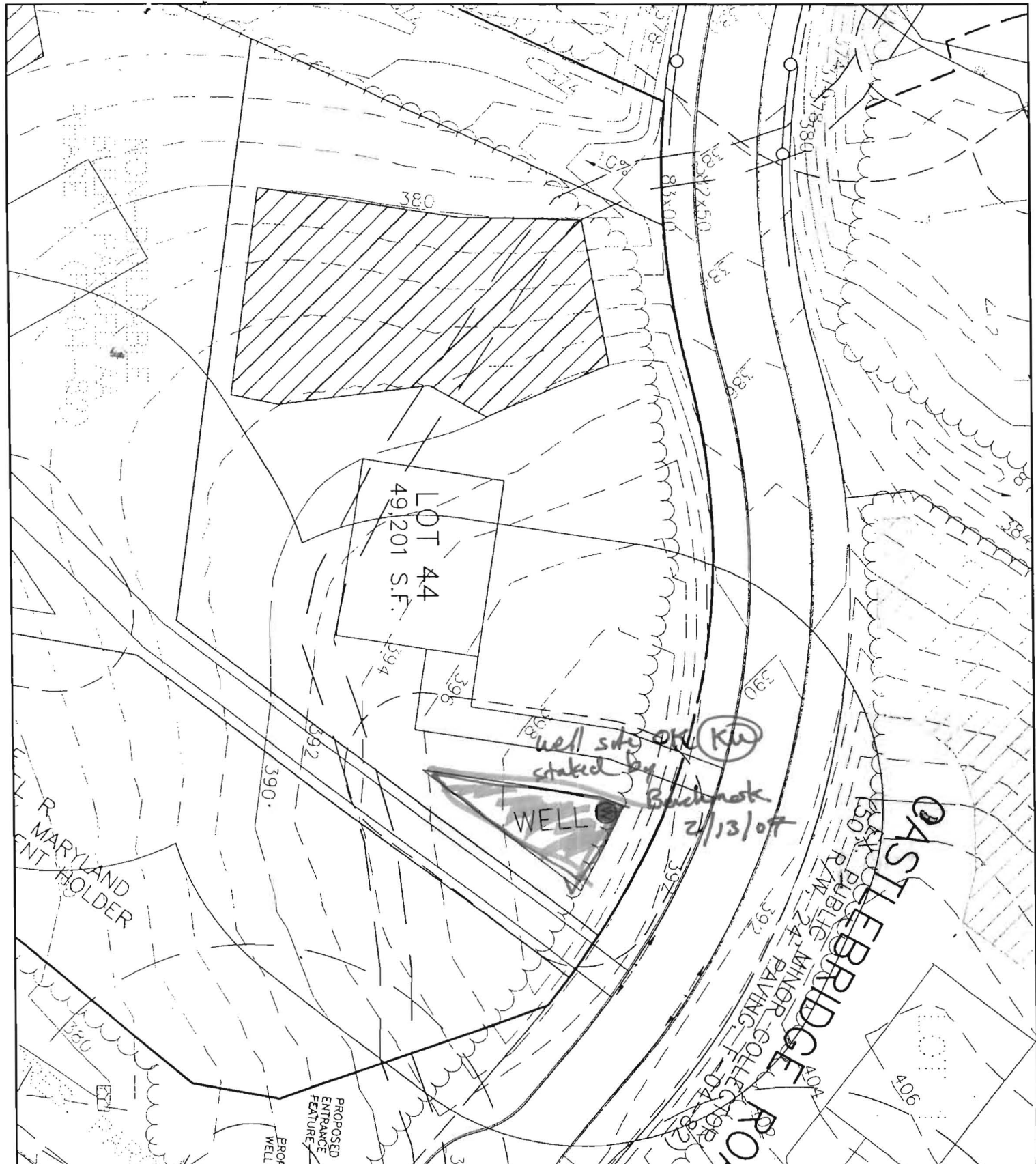
PVC sleeved to undisturbed soil at wall penetration: _____
Approximate length of sleeve: _____
Sleeve caulked and sealed properly: _____

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 _____ date _____

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

Date Insp. Requested: _____ Date Insp. Approved: 6/22/2011 (RB)
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
Under Footer



BENCHMARK

RIVERWOOD, PHASE 2

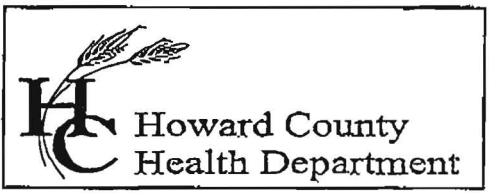
LOT 44

ENGINEERS • LAND SURVEYORS • PLANNERS

FORTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

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

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



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 Names
OPEN RUN ROAD & Whithorn 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:
~~_____~~
~~_____~~

2006 DE 18 PM 2:32

HOWARD COUNTY HEALTH DEPARTMENT



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

INTERIM CERTIFICATE OF POTABILITY

September 14th, 2011

Homeowner
4809 Castlebridge Road
Ellicott City, MD 21042

RE: Riverwood, Lot 44
BP #: B11001211
Well Tag: HO-95-0689

Dear Homeowner:

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 7/12/2011. Final approval of the well line connection to the dwelling was approved on 6/22/2011.**

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.

The untreated water sample results for iron were previously documented to be 0.36 mg/L. The maximum containment level for iron according to COMAR is 0.30 mg/L. **An Iron removal device has been installed to treat the excessive iron concentration in the water supply. The iron treatment device(s) appears to be operating properly as evidenced by the water sample results taken on 9/8/2011 which indicates an iron level of 0.04 mg/L.**

Gross Alpha and Beta samples were also collected on 7/26/2007. Results showed a Gross Alpha level of 9.0 ± 2.0 pCi/L and **Gross Beta** level of 6.0 ± 2.0 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.

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-95-0689. 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. In addition to this, a second nitrate sample should be tested at the time of second bacteriological test.

**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: 8/16/2011, 8/24/2011, 8/30/2011, 9/2/2011, 9/8/2011
Date of Well Completion: 07/26/2007
Date of Radium Samples: 07/26/2011

Approving Authority,



Kevin M. Wolf, R.S., R.E.H.S.
Environmental Sanitarian
Well & Septic Program

cc: Building Inspector's Office
Community Hygiene
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.
 115 Old Ferrytown Rd., Westport, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 81152 Account #: 3123
 Reference: Riverwood Lot 44 Company: National Water Servicing
 Location: 4809 Castlebridge Road Requested By: Dave Rycke
 Ellicott City, MD 21042 Source: Well Water
 Date/ Time Collected: 9/8/2011 0920 Site: Test Port prior to treatment
 Date/Time Rec'd: 9/8/2011 1200 Treatment: **
 Chlorine ppm: Free: ND Total: ND pH: 6.4
 Collected By: J.Yeager 6176JY Well #: HO-95-0689

PARAMETERS	RESULTS	LIMITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Sand	NS	mg/L	5	Visual/Gravimetric	9/9/2011 / 1115 / KME
Iron	0.36	mg/L	0.3	FR, 45 (126)	9/8/2011 / 1545 / CCH

Ellicott
MCL Iron
0.3 mg/L

NOTES

- 1 **Collected prior to Multi Stage Filter/Sediment Filter/Neutralizer/Softener
- 2 mg/L = milligrams per liter (also, parts per million)
- 3 NS = None Seen (NS indicates less than 5 mg/L)
- 4 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 5 ND:None Detected
- 6 Visual well check: Sealed, vented cap
- 7 pH and Chlorine level tested on site

Reason for Test: Use & Occupancy
 Building Permit #: 11001211

Date Reported: 9/9/2011

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.
 115 Old Lanesdown Rd. Westminster, MD 21157 (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	81151	Account #:	3123
Reference:	Riverwood Lot 44	Company:	National Water Servicing
Location:	4809 Castlebridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	9/8/2011 0920	Source:	Well Water
Date/Time Rec'd:	9/8/2011 1200	Site:	Test Port after treatment
Chlorine ppm:	Free: ND Total: ND	Treatment:	**
Collected By:	J. Yeager 6176JY	pH:	7.0
		Well #:	HO-95-0689

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Iron	0.04	mg/L	0.3	FR, 45 (126)	9/8/2011 / 1545 / CCH

→
OK
Post Treatment

NOTES

- 1 **Multi Stage Filter/Sediment Filter/Neutralizer/Softener
- 2 mg/L = milligrams per liter (also, parts per million)
- 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 on site

Reason for Test : Use & Occupancy
 Building Permit # : 11001211

Date Reported: 9/9/2011

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 #: 81095 Account #: 3123
Reference: Riverwood Lot 44 Company: National Water Servicing
Location: 4809 Castlebridge Road Requested By: Dave Rycke
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 9/2/2011 1105 Site: Test Port after treatment
Date/Time Rec'd: 9/2/2011 1240 Treatment: **
Chlorine ppm: Free: ND Total: ND pH: 6.5
Collected By: K. Eichstedt 2870KE Well #: HO-95-0689

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	4.42	NTU	<10	SM18 2130B	9/2/2011 / 1250 / KME

*Need to
Test for
Iron*

NOTES

- 1 **Multi Stage Filter/Sediment Filter/Neutralizer/Softener
- 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 on site

Reason for Test : Use & Occupancy

Building Permit # : 11001211

Date Reported: 9/2/2011 Reviewed By: _____

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 #:	81032	Account #:	3123
Reference:	Riverwood Lot 44	Company:	National Water Servicing
Location:	4809 Castlebridge Road Bellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	8/30/2011 1150	Source:	Well Water
Date/Time Rec'd:	8/30/2011 1345	Site:	Test Port
Chlorine ppm:	Free: ND Total: ND	Treatment:	Multi Stage Filter/Sediment Filter
Collected By:	K. Eichstedt 2870KE	pH:	6.3
		Well #:	HO-95-0689

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	20.5	NTU	<10	SM18 2130B	8/30/2011 / 1400 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	8/30/2011 / 1400 / KME

NOTES

- 1 NS = None Seen (NS indicates less than 5 mg/L)
- 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 and Chlorine level tested on site

Reason for Test : Use & Occupancy
 Building Permit # : 11001211

Date Reported: 8/30/2011*MD State Certification # 133*

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1435 Old Lane, P.O. Box 1100, Westminster, MD 21156-1100 (301) 875-1100

REPORT OF ANALYSIS

Laboratory ID #: 80982 Account #: 3123
 Reference: Riverwood Lot 44 Company: National Water Servicing
 Location: 4809 Castlebridge Road Requested By: Dave Rycke
 Ellicott City, MD 21042 Source: Well Water
 Date/Time Collected: 8/24/2011 1205 Site: Pressure Tank
 Date/Time Rec'd: 8/24/2011 1725 Treatment: None**
 Chlorine ppm: Free: ND Total: ND pH: 6.6
 Collected By: C. Holland 0547CH Well #: HO-95-0689

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	8/25/2011 / 1130 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	8/25/2011 / 1130 / CCH
Nitrate	<1.0	mg/L	10	601	8/24/2011 / 1730 / CCH
Turbidity	93.5	NTU	<10	SM18 2130B	8/24/2011 / 1730 / CCH
Sand	Present	mg/L	5	Visual/Gravimetric	8/24/2011 / 1730 / CCH

OK

8/24/11
 elevated

NOTES

- 1 ***Sample collected prior to Sediment filter/ Conditioner
- 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 # : 11001211

Date Reported: 8/25/2011

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

14301 Pine Lake Rd., Westminster, MD 21157

REPORT OF ANALYSIS

Laboratory ID #: 80875 Account #: 3123
 Reference: Riverwood Lot 44 Company: National Water Servicing
 Location: 4809 Castlebridge Rd. Requested By: Dave Rycke
 Ellicott City, MD 21042 Source: Well Water
 Date/ Time Collected: 8/16/2011 1213 Site: Pressure Tank
 Date/Time Rec'd: 8/16/2011 1735 Treatment: None
 Chlorine ppm: Free: ND Total: ND pH: 6.2
 Collected By: J.Yeager 6176JY Well #: HO-95-0689

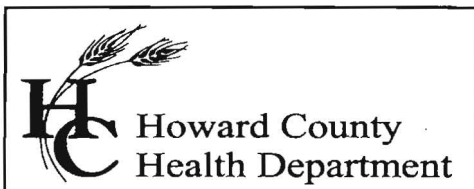
PARAMETERS	RESULTS	UNITS	REFERENCE	LABORATORY	ANALYST
Bacteria, Coliform, Total, MPN	2.0	MPN/ 100 ml	<1.0	SM18 9223	8/17/2011 / 1200 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	8/17/2011 / 1200 / CCH
Nitrate	<1.0	mg/L	10	601	8/17/2011 / 1430 / CCH
Turbidity	32.20	NTU	<10	SM18 2130B	8/17/2011 / 0815 / KME
Sand	Present	mg/L	5	Visual/Gravimetric	8/17/2011 / 0815 / KME

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: Scaled, vented cap
- 8 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy
 Building Permit # : 11001211

Date Reported: 8/17/2011



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

August 30, 2007

Winchester of Howard County
6905 Rockledge Dr.
Suite 800
Bethesda, MD 20817

RE: Riverwood Subdivison, Lot# 44
Well Tag: HO-95-0689

To Whom It May Concern:

A sample was collected from a yield test July 26, 2007 and submitted to 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.

Results from this screening revealed a **Gross Alpha** of 9.0 ± 2.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 6.0 ± 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 target 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 (potability) testing 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.

Sincerely,

Bert Nixon, Deputy Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater
✓ Well & Septic File

Send Report To:

B. N. Nelson

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: 140-95-0689 No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: RNW Wood 2 Lot 44 County: Howard

Sample Source: South bridge Rd. Location: 140-95-0689
(well no., lab sink, sample tap, etc.)

County: 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 type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: K. Wolf

Telephone No: 410-313-2645

Date Collected: 7/26/07

Time Collected: 10⁰⁰ a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: _____

Remarks: sample taken during end of yield pH _____ Chlorine _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0252	9±2	07/30/07
	Gross Beta	4100	0252	6±2	
	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: _____

