

C1 3836 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 A516084

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY

Depth of Well 22 26 (TO NEAREST FOOT) 200

PERMIT NO. FROM "PERMIT TO DRILL WELL" HD-94-4057

OWNER Winchester Homes STREET OR RFD Kingsale Ct. TOWN Elliott City SUBDIVISION Riverwood SECTION SECTION LOT 35

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Top soil, Brown mica, Grey mica w/ quartz, and Quartz.

GROUTING RECORD WELL HAS BEEN GROUTED (Y) NO (N) TYPE OF GROUTING MATERIAL (C) MENTONITE CLAY (B) C NO. OF BAGS 33 NO. OF POUNDS 3300 GALLONS OF WATER 198 DEPTH OF GROUT SEAL 35

CASING RECORD casing types insert appropriate code below MAIN CASING TYPE ST Nominal diameter 6 Total depth 67

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 (I) N

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED (Y) NO (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...

DRILLERS LIC. NO. MWD 040 DRILLERS SIGNATURE George T. Gorden LIC. NO. AWD 788

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

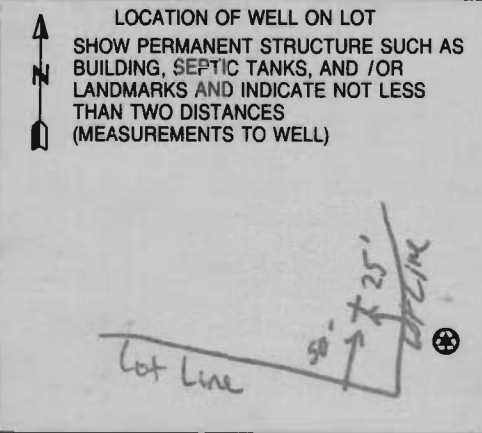
DEPTH (nearest ft.) table with columns 1-21 and rows A-C, S-E, N. Includes slot size and diameter of screen.

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

PUMPING TEST HOURS PUMPED 3 PUMPING RATE 15 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL 31 BEFORE PUMPING 31 WHEN PUMPING 60 TYPE OF PUMP USED (for test) S submersible

PUMP INSTALLED DRILLER INSTALLED PUMP 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 } 2 (nearest foot)



B 1 9727

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 520762

STATE PERMIT NUMBER HO-94-4057 fill in this form completely

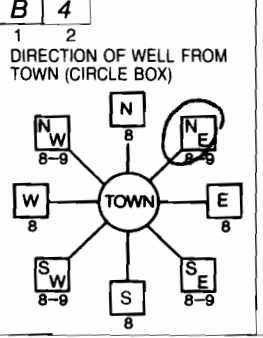
OWNER INFORMATION 9776 Date Received (APA) 07/11/04 Winchester Homes, Inc 6905 Rockledge Drive, Suite 800 Bethesda, Md 20817

LOCATION OF WELL B 3 Howard CC# 8 COUNTY 21 Riverwood 23 SUBDIVISION 42 SECTION 1 LOT 35 Clarksville F/Ellicott City 52 NEAREST TOWN 71 MILES FROM TOWN 3

DRILLER INFORMATION George F. Easterday M WD 040 Driller's Name License No. 81 L. Franklin Easterday, Inc. 9265 Brown Church Rd., MT. Airy, Md. 21771

Kinsale Court 11 NEAR WHAT ROAD 30 ON WHICH SIDE OF ROAD 50 DISTANCE FROM ROAD 37 Ft. ENTER FT OR MI 38 39 TAX MAP: 23 BLK: 21 PARCEL 86

WELL INFORMATION APPROX. PUMPING RATE 5 (GAL. PER MIN.) 8 12 AVERAGE DAILY QUANTITY NEEDED 500 (GAL. PER DAY) 14 20



USE FOR WATER (CIRCLE APPROPRIATE BOX) D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) I INDUSTRIAL, COMMERCIAL, DEWATERING P PUBLIC WATER SUPPLY WELL T TEST, OBSERVATION, MONITORING G GEO-THERMAL

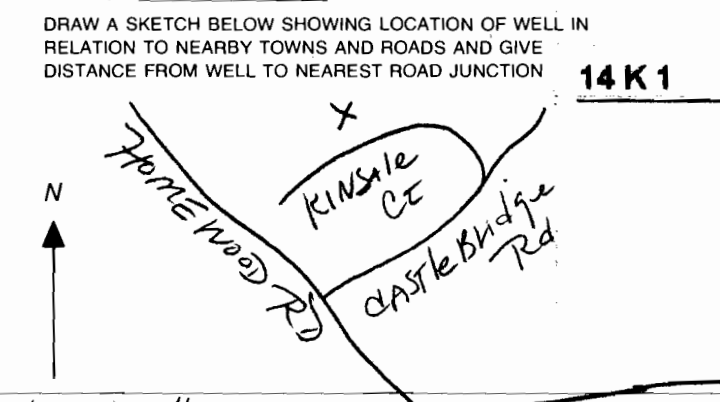
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard 13 1516084 COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 10/27/04 CO SIGNATURE EXP. DATE 10/27/05 NORTH GRID 513 000 EAST GRID 827 000

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

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X 5/11/05 grout AM SOURCES OF DRILLING WATER 1. wells 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE X E 827 N 513

METHOD OF DRILLING (circle one) BORED (or Auger) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41



Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER HO 2004 G007 PERMIT No. HO-94-4057

SPECIAL CONDITIONS NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED





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: PO 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 supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.

Name of Property Owner: WINCHESTER THOMES Telephone #:
Subdivision: RIVERWOOD Lot #: 35 Well Tag #: HO-94-4057
Site Address: 11226 KINGSLE CT
ELICOTT CITY

Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: GRUNDFOS Make: SEAL WELL PRODUCTS Two piece watertight cap: [checked]
Model #: 15SGE07-180 Model #: P100 Screened, vented well cap: [checked]
Pump Capacity 15 GPM Depth: 48 (36" min) Cap secured to casing: [checked]
Well Yield: 15 GPM NSF/WSC approved: [checked] Conduit min 18" B.G.: [checked]
Depth of well encountered at time of pump installation: 20 (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, Cable guards, or other acceptable method used- Must circle one
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

Piping to house
Type: BLACK POLY
PSI: 160 (160 psi min)
Depth of supply line: 40 (36" min)

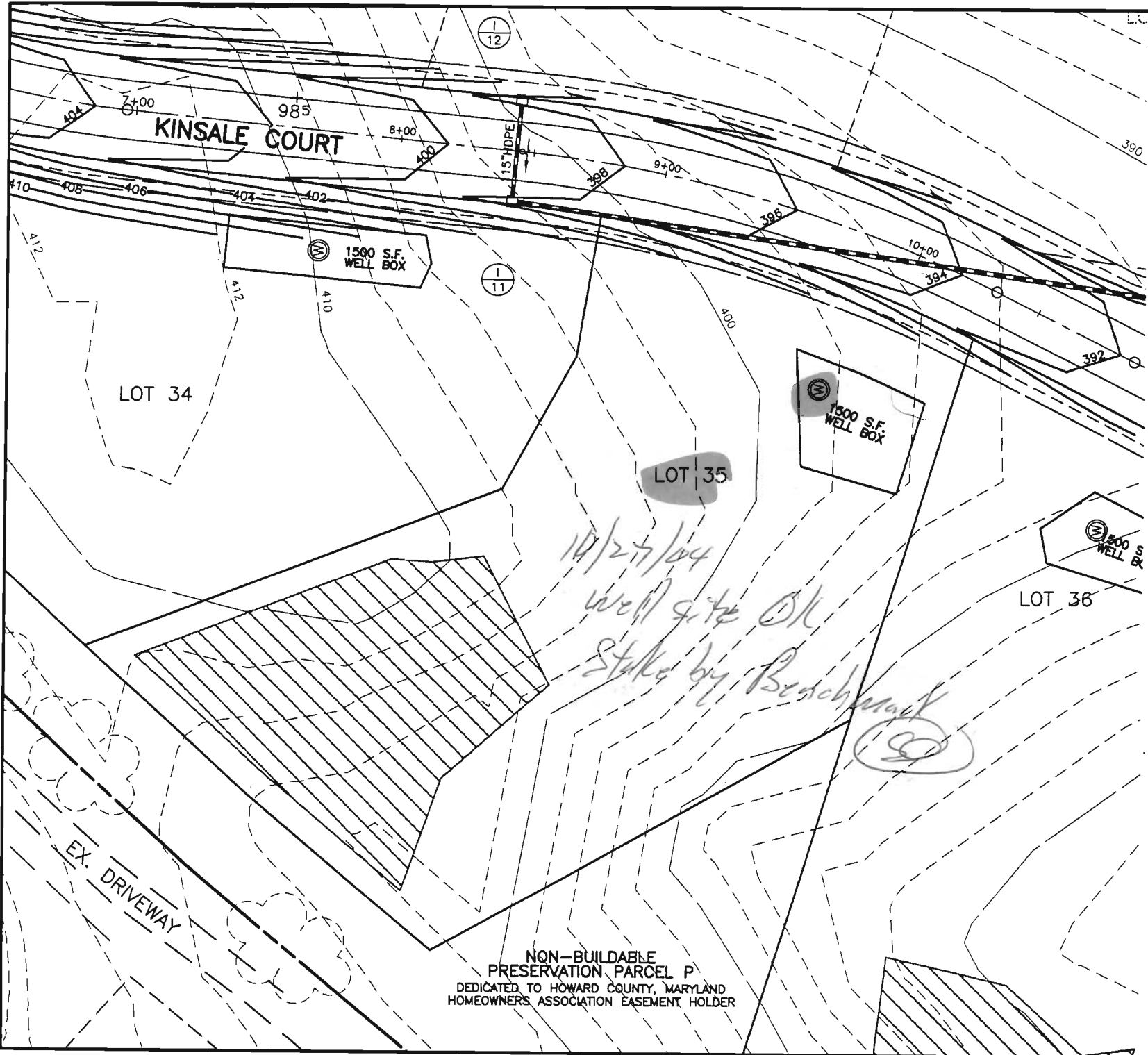
House Connection
PVC sleeve to undisturbed soil at well penetration: [checked]
Approximate length of sleeve: 5
Sleeve caulked and sealed properly: [checked]

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: [Signature] date: 5/9/08

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

Date Insp. Requested: Date Insp. Approved: 6/3/08 Inspector: [Signature]
Inspection Data: Pitless adapter watertight & 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 not seen outside of well cap/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 35

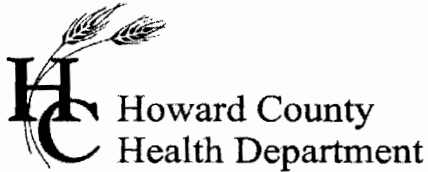
THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 50' DATE: 10/12/04

**BENCHMARK**  
 ENGINEERS • LAND SURVEYORS • PLANNERS

**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043  
 PHONE: 410-465-6105 FAX: 410-465-6644

NON-BUILDABLE  
 PRESERVATION PARCEL P  
 DEDICATED TO HOWARD COUNTY, MARYLAND  
 HOMEOWNERS ASSOCIATION EASEMENT HOLDER



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

June 5, 2008

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

RE: Riverwood, Lot 35  
11226 Kinsale Court  
Ellicott City, MD 21042  
BP #: B07003010  
Well Permit # HO-94-4057

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 05/19/2008. Final approval of the well line connection to the dwelling was approved on 06/03/2008.**

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.

Also, Gross Alpha and Beta samples were collected on 05/11/2005. 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. At the time of the 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 and Occupancy.

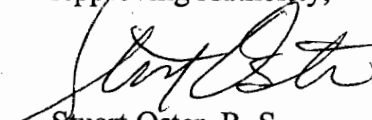
#### INTERIM CERTIFICATE OF POTABILITY

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-94-4057. 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.**

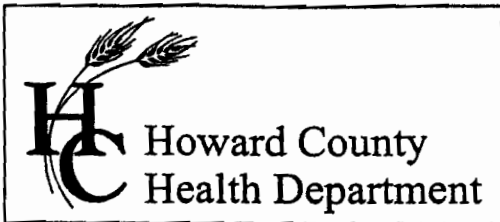
Dates of Water Sample: 05/22/2008  
Date of Samples for Gross Alpha and Gross Beta: 05/11/2005  
Date of Well Completion: 05/04/2005

Approving Authority,



Stuart Oster, R. S.  
Well & Septic Program

cc: Building Inspector's Office  
Community Health Services  
File



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

## ATTENTION WELL DRILLERS!!!

When submitting a well application for a new or replacement well, please indicate ~~one~~ of the following:

- The well site has been staked by Benchmark Engineering on June '04 and is ready for site inspection.
- \_\_\_\_\_ will call the Health Department for a time to meet in the field to verify a well location.
- Site plan for new well is attached to well permit application.

Please attach this sheet when submitting your green application. This should help improve communication allowing a more timely service for our citizens.

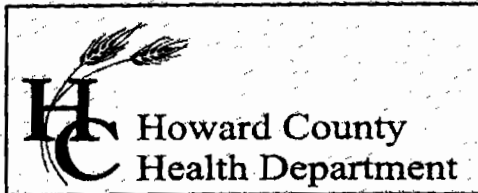
KN      Winchester Homes

LOTS    1-10                      Phase I

12-23                      Riverwood

34-41

all are staked



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

May 31, 2005

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

RE: Riverwood Subdivision, lot 35  
Open Run Road

To Whom It May Concern:

Samples were taken from a yield test on May 11, 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  $5 \pm 2$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $20 \pm 2$  pCi/L. The **Gross Alpha** result was below the respective maximum contaminant level (MCL) of 15 pCi/L, while the **Gross Beta** was below the MCL of 50 pCi/L.

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

Sincerely,

Bert Nixon, Assistant Director  
Bureau of Environmental Health

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

Send Report To:

State of Maryland  
DEPRH - 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  
J. Mahsen Joseph, Ph.D., Director

**LABORATORY ANALYSIS REQUEST**

Sample Bottle No. A: HO-94-4057 No. B: \_\_\_\_\_ Field Blank Bottle No. 1: \_\_\_\_\_ No. 2: \_\_\_\_\_

Plant/Site Name: Riverwood Lot 35 County: Howard

Sample Source: Well Location: HO-94-4057  
(well no., lab sink, sample tap, etc.)

County:  1  3 Plant No.

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

Date Collected: 5/11/05 Time Collected: 9:10 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Submitters Code:   Federal Project:  Field Data: ~6.7 N/A  
pH Chlorine

Remarks: pH Fixed to ~2.0

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	2301	6 ± 2	05/13/05
✓	Gross Beta	4100	2301	20 ± 2.0	05/13/05
	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: 05/11/05

Section Chief: J. Uliasz

**FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.**

1493 Old Chesapeake Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX: (410) 848-0298

**REPORT OF ANALYSIS**

Laboratory ID #:	67578	Account #:	3123
Reference:	Riverwood Lot 35	Company:	National Water Servicing
Location:	11226 Kingsale Court Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	5/22/2008 1215	Source:	Well Water
Date/Time Rec'd:	5/22/2008 1329	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J.Yeager 6176JY	pH:	6.4
		Well #:	HO-94-4057

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	5/23/2008 / 0800 / AD/BD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	5/23/2008 / 0800 / AD/BD
Nitrate	7.23	mg/L	10	601	5/22/2008 / 1600 / BCD
Turbidity	1.38	NTU	<10	SM18 2130B	5/22/2008 / 1545 / BCD
Sand	NS	mg/L	5	Visual/Gravimet	5/22/2008 / 1545 / BCD

**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 tested on-site

Reason for Test : Use & Occupancy  
 Building Permit # : B07003010

Date Reported: 5/23/2008