

C1 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

ST/CO USE ONLY DATE RECEIVED DATE WELL COMPLETED Depth of Well PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER WELL SITE ADDRESS SUBDIVISION SECTION LOT

WELL LOG table with columns for DESCRIPTION, FEET (FROM, TO), and check if water bearing. Includes handwritten entries for Brown Loamy mica, Gray Limestone, White Limestone, and Gray Limestone.

GROUTING RECORD: WELL HAS BEEN GROUTED, TYPE OF GROUTING MATERIAL (CEMENT, BENTONITE CLAY), NO. OF BAGS, GALLONS OF WATER, DEPTH OF GROUT SEAL.

CASING RECORD: casing types insert appropriate code below, MAIN CASING TYPE, Nominal diameter, Total depth.

OTHER CASING (if used) diameter, depth (feet)

SCREEN RECORD: screen type or open hole, insert appropriate code below.

PUMPING TEST: HOURS PUMPED, PUMPING RATE, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, TYPE OF PUMP USED.

PUMP INSTALLED: DRILLER INSTALLED PUMP, TYPE OF PUMP INSTALLED, CAPACITY, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT.

NUMBER OF UNSUCCESSFUL WELLS:

WELL HYDROFRACTURED

CIRCLE APPROPRIATE LETTER: A WELL WAS ABANDONED AND SEALED, 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 5D 009

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.)

DEPTH table with columns for depth intervals (8-11, 15-17, 23-26, 30-32, 38-41, 45-47, 51-54).

SLOT SIZE 1, 2, 3; DIAMETER OF SCREEN (NEAREST INCH)

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

LATITUDE 3 9.1820068, LONGITUDE 7 6.9620361 (DEFAULT COORD. WGS 84)

NOTES:

B 7 09336

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO - 95 - 2417

fill in this form completely

538068-K please type

Date Received (APA)

09 11 12

OWNER INFORMATION

Stewart Kret Homes, 7090 Samuel Morse Dr., Columbia, Md. 21046

B 3

LOCATION OF WELL

Howard County, Owings Property, SECTION 22, NEAREST TOWN Highland

DRILLER INFORMATION

Allen Compton, M S D 009, Fogles Well Drilling, LLC, P.O. Box 202 Woodbine Md 21797

B 4

SOURCES OF DRILLING WATER

1. 2. 3.

Owings Overlook, Highland Rd, ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX), DISTANCE FROM ROAD 250 FT, TAX MAP: 21 BLK: 12 PARCEL

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 (circled), FARMING, INDUSTRIAL, PUBLIC WATER SUPPLY WELL, TEST, OBSERVATION, MONITORING, OPEN LOOP GEOTHERMAL, CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County, A515214, STATE SIGNATURE, DATE ISSUED 10/09/2012, CO SIGNATURE, EXP. DATE 10/9/13

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) AIR-ROTary (circled), JETTED, ROTARY (Hydraulic Rotary), DRIVE-POINT

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL (circled), THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED, THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS, THIS WELL WILL DEEPEIN AN EXISTING WELL

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

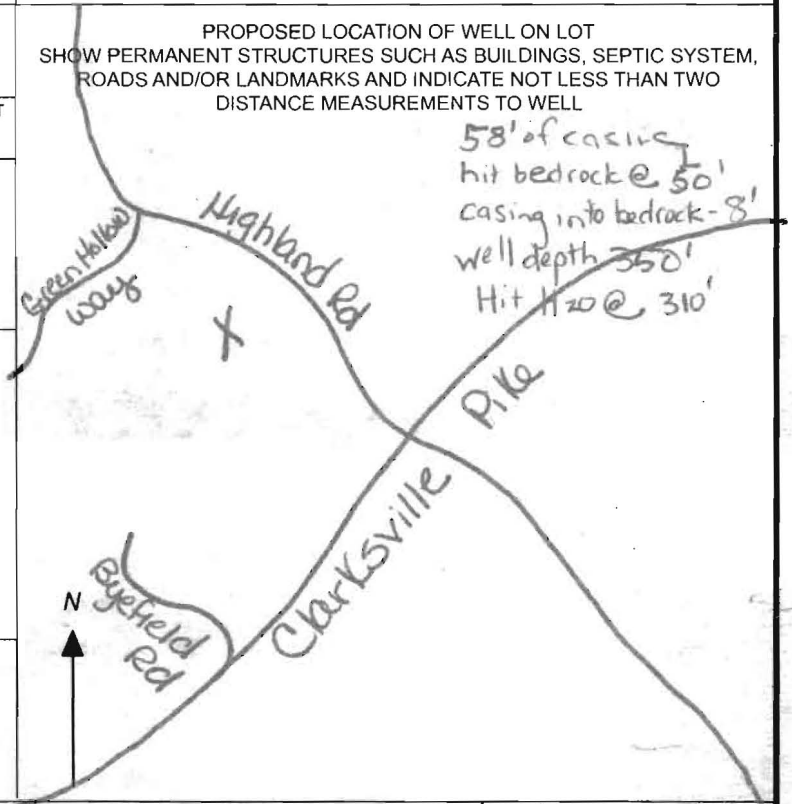
APPROX. PERMIT NUMBER G, PERMIT No. HO - 95 - 2417

SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Radium Sample required at yield test

PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 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: Fogles Well Drilling LLC Telephone #: 410 795 51670
Address: PO Box 2021
Woodbine, MD 21797

(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 C FOGLE License# MSD226

*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: Stewart Kret Homes Telephone #: 410-984-9023
Subdivision: Twins Property Lot #: 22 Well Tag #: HO-95-2417 ✓
Site Address: 6040 Twins Overlook Way
Highland, MD

| <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: <u>YES</u> |
| Model #: <u>ISSGE10-220</u> | Model #: <u>N/A</u> | Screened, vented well cap: <u>YES</u> |
| Pump Capacity: <u>10</u> GPM | Depth: <u>36"</u> (36" min) | Cap secured to casing: <u>YES</u> |
| Well Yield: <u>4</u> GPM | NSF/WSC approved: <u>YES</u> | Conduit min 18" B.G.: <u>YES</u> |
| Depth of well encountered at time of pump installation: <u>350</u> (feet) | | Conduit secured to well cap: <u>YES</u> |

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque anastors, Cable guards, or other acceptable method used - Must circle one

Safety rope, if used, attached to brass rope adaptor or other acceptable method inside of well casing N/A

| <u>Piping to house</u> | <u>House Connection</u> |
|--|--|
| Type: <u>1" poly pipe</u> | PVC sleeve to undisturbed soil at wall penetration: <u>YES</u> |
| PSI: <u>160</u> (160 psi min) | Length of sleeve (5" minimum from foundation): <u>10"</u> |
| Depth of supply line: <u>36"</u> (36" min) | Sleeve 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: David Fogle date: 9-17-14

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

Date Insp. Requested: 9/18/14 Date Insp. Approved: 9/18/14 Inspector: RR

| | |
|--|-------------------------------------|
| Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade | <input checked="" type="checkbox"/> |
| Two piece cap installed and attached to casing securely | <input checked="" type="checkbox"/> |
| Elec. conduit extends at least 18" below grade/attached to cap properly | <input checked="" type="checkbox"/> |
| Safety rope not outside of well cap/casing | <input checked="" type="checkbox"/> |
| Correct well tag attached properly and casing 8" above finished grade | <input checked="" type="checkbox"/> |
| Water supply line sleeved adequately at house connection | <input checked="" type="checkbox"/> |
| Adequate grout observed below pitless adapter | <input checked="" type="checkbox"/> |

Send Report To: Bert Nixon
 Howard County Health Department
 Bureau of Environmental Health
 7178 Columbia Gateway Drive
 Columbia, Maryland 21046

State of Maryland
 DHMH - Laboratories Administration
 Division of Environmental Chemistry
RADIATION LABORATORY
 201 W. Preston Street, Baltimore, Maryland 21201
 John M. DeBoy, Dr. P. H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0-95-2417 No. B: — Field Blank Bottle No. 1: FBKW 10912 No B: —

Plant/Site Name: Owings Overlook Lot (22) County: Howard

Sample Source: Highland Rd. Location: H0-95-2417
(well no, lab sink, sample tap, etc.)

County: 1 3 Plant No.

CHECK (one per box)

| | | | |
|--|---|--|---|
| Drinking Water <input checked="" type="checkbox"/> | Community <input type="checkbox"/> | Source (raw water) <input checked="" type="checkbox"/> | Emergency <input type="checkbox"/> |
| Landfill <input type="checkbox"/> | Non-community <input type="checkbox"/> | Distribution (treated) <input type="checkbox"/> | Routine <input checked="" type="checkbox"/> |
| Stream <input type="checkbox"/> | Private <input checked="" type="checkbox"/> | MCL <input type="checkbox"/> | Recheck <input type="checkbox"/> |
| Other <input type="checkbox"/> | Other <input type="checkbox"/> | | Special <input type="checkbox"/> |

Collector: R. Rappaport Telephone No.: 410 313 1781

Date Collected: 10/19/12 Time Collected: — a.m. 3:00 p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: — pH — Chlorine

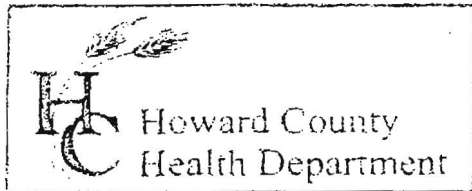
Remarks: Sample collected during yield.

| ✓ | Test | EPA Code | Laboratory No. | Results (pCi/L) | Date Analyzed | Date Reported |
|---|-----------------------|----------|----------------|-----------------|---------------|---------------|
| ✓ | Gross Alpha | 4000 | | | | |
| ✓ | Gross Beta | 4100 | | | | |
| | 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: —

•Tel. No.: (410) 767 - 5537 •Fax No.: (410) 333- 5373



3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

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

TO ALL INTERESTED PARTIES

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

- The well site has been staked by Jose Bolazco Escalante Engineers
(professional land surveyor or company employing professional land surveyors)
on 8-28-12 (date) and does not require a site inspection.
- ^{Lot# 17-24} The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

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

Revised 6/10/03

Send Report To:

Bert Nixon

Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY
201 W. Preston Street, Baltimore, Maryland 21201
John M. DeBoy, Dr. P. H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: — No. B: — Field Blank Bottle No. 1: FBKW101912 No B: —

Plant/Site Name: HCHD County: Howard

Sample Source: Distilled H₂O Location: Lab
(well no, lab sink, sample tap, etc.)

County: 1 3 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: 10/19/12 Time Collected: — a.m. 4:00 p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: — pH — Chlorine

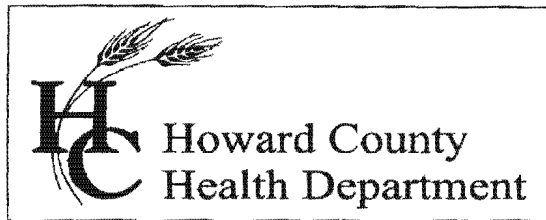
Remarks: Gross L.B. Field Blank

| ✓ | Test | EPA Code | Laboratory No. | Results (pCi/L) | Date Analyzed | Date Reported |
|---|-----------------------|----------|----------------|-----------------|---------------|---------------|
| | Gross Alpha | 4000 | | | | |
| | Gross Beta | 4100 | | | | |
| | 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: —

•Tel. No.: (410) 767 - 5537 •Fax No.: (410) 333- 5373



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
PERMANENT DEVIATION FOR RADIUM
Expiration Date – June 19, 2014

January 8, 2015

Homeowner
6840 Owings Overlook
Highland, MD 20777

RE: Owings Overlook, Lot 22
6840 Owings Overlook
Building Permit: BB14000903
Well Permit: HO-95-2417

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 **1/8/2015**. Final approval of the well line connection to the dwelling was granted on **9/18/2014**. The well construction was completed on **10/22/2012**. Water samples were collected on **11/3/2014, 11/11/2014 and 12/16/2014**.

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 **10/19/2012, 11/3/2014, and 11/24/2014**. Results showed a Gross Alpha level of **33.1 ± 4.2 pCi/L** and Gross Beta level of **15.9 ± 2.4 pCi/L**. **This exceeds the maximum contaminant level (MCL) of 15 pCi/L and/or 50 pCi/L, respectively.**

After installation of a radionuclide removal device(kitchen tap reverse osmosis system), post-treatment water samples were collected on **11/3/2014, 11/24/2014** and indicated a Gross Alpha, Short Term level of **3.0 pCi/L**, a Gross Beta, Short Term level of **11.9 pCi/L**, a Gross Alpha, Long Term level of **1.5 pCi/L**, a Gross Beta, Long Term level of **8.6 pCi/L** and a Radium 226 level of **0.2** and Radium 228 level of **<0.8 pCi/L**.

This Department will grant a **permanent deviation** to the Interim Certificate of Potability on condition that the radionuclide removal system effectively maintains a Gross Alpha level of less than **15 pCi/L**, a Gross Beta level of less than **50 pCi/L**, and a Radium 226/228 level of less than **5 pCi/L**.

Furthermore, it will be necessary for you to comply with the following conditions:

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.
2. It is recommended that a Maryland certified water laboratory certified for radionuclide analysis perform a yearly radionuclide analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.12F Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

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-95-2417. 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 Maryland 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,



Hank Oswald, L.E.H.S.
Environmental Sanitarian
Well & Septic Program

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



Bureau of Environmental Health

7178 Columbia Gateway Drive, Columbia, MD 21046-2147

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Maura J. Rossman, M.D., Health Officer

January 10, 2013

**Stuart Kret Homes
7090 Samuel Morse Drive
Columbia, Maryland 21046**

**RE: Owings Overlook Lot 22
Highland Road
Well Tag: HO - 95 - 2417**

To Whom it May Concern:

A sample was collected during a yield test on October 19, 2012 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 33.1 ± 4.2 picocuries/liter (pCi/L), while the **Gross Beta** level was 15.9 ± 2.4 pCi/L. The **Gross Alpha** result was above 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 **does not** meet EPA regulatory standards. **Additional testing for these parameters, plus Radium 226 and Radium 228** will be required to secure the future Use & Occupancy. Given the possibility of an elevated finding for **Gross Alpha**, the installation of a water softener system and / or a reverse osmosis system may likely be necessary. If treatment is installed, **pre and post short and long term Gross Alpha and Beta, plus a post Radium 226 / 228** will be needed to properly evaluate the effectiveness of the installed treatment(s). Alternatively, you may collect raw water samples for **short and long term Gross Alpha and Beta, plus Radium 226 / 228** to see if all values are below existing standards. Given that it typically takes up to one month to perform and receive back the **Radium** analyses, plan accordingly. Please also note that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

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,

A handwritten signature in black ink, appearing to read 'Bert Nixon', written over a white background.

Bert Nixon, Director
Bureau of Environmental Health

Enclosure

cc: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property 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 #: 97977 Account #: 1930
Reference: Steuart & Kret Lot 22 Company: Fogle's Well Drilling
Location: 6840 Owings Overlook Way Requested By: Dave Fogle
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 11/24/2014 1400 Site: R/O Tap
Date/Time Rec'd: 11/24/2014 1602 Treatment: Softener/Reverse Osmosis
Chlorine ppm: Free: ND Total: ND pH: 7.0
Collected By: J. Fogle 1974JF Well #: HO-95-2417

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|---------------------------|---------|-------|-----------|--------|-------------------------|
| ✓ Gross Alpha, Short Term | 3.0 | pCi/L | 15 | 900.0 | 11/27/2014 / 0552 / MJN |
| ✓ Gross Beta, Short Term | 11.9 | pCi/L | 50 | 900.0 | 11/27/2014 / 0552 / MJN |
| ✓ Gross Alpha, Long Term | 1.5 | pCi/L | 15 | 900.0 | 12/5/2014 / 0655 / MJN |
| ✓ Gross Beta, Long Term | 8.6 | pCi/L | 50 | 900.0 | 12/5/2014 / 0655 / MJN |
| ✓ Radium-226 | 0.2 | pCi/L | **** | 903.1 | 12/4/2014 / 1406 / MJN |
| ✓ Radium-228 | <0.8 | pCi/L | **** | Ra-05 | 12/3/2014 / 1344 / SN |

12/19/14, H.O.

NOTES

- 1 ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 Long Term Gross Alpha Detection Limit: 1.4 pCi/L; Long Term Gross Beta Detection Limit: 2.0 pCi/L
- 3 pCi/L = picocuries per liter
- 4 Radium 226 Detection Limit: 0.2 pCi/L; Radium 228 Detection Limit: 0.8 pCi/L
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 Short Term Gross Alpha Detection Limit: 1.1 pCi/L; Short Term Gross Beta Detection Limit: 1.9 pCi/L
- 7 Sub-contracted to Reference Lab #278
- 8 ND:None Detected
- 9 Sample collected by client, analyzed as received
- 10 pH tested in lab, chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : 14000903

Date Reported: 12/10/2014

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 #: 97462 Account #: 1930
Reference: Steuart & Kret Lot 22 Company: Fogle's Well Drilling
Location: 6840 Owings Overlook Way Requested By: Dave Fogle
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 11/3/2014 1315 Site: Pressure Tank
Date/Time Rec'd: 11/3/2014 1550 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.9
Collected By: J. Fogle 1974JF Well #: HO-95-2417

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|-------------------------|-----------------------------|-------|-----------|--------|-------------------------|
| Gross Alpha, Short Term | <u>18.8</u> | pCi/L | 15 | 900.0 | 11/7/2014 / 0623 / MJN |
| Gross Beta, Short Term | 18.9 | pCi/L | 50 | 900.0 | 11/7/2014 / 0623 / MJN |
| Gross Alpha, Long Term | 11.0 | pCi/L | 15 | 900.0 | 11/12/2014 / 0957 / MJN |
| Gross Beta, Long Term | 15.6 | pCi/L | 50 | 900.0 | 11/12/2014 / 0957 / MJN |
| Radium-226 | <u>4.3</u> | pCi/L | **** | 903.1 | 11/12/2014 / 1310 / MJN |
| Radium-228 | <u>3.7</u> ^{>5} | pCi/L | **** | Ra-05 | 11/11/2014 / 1228 / SN |

NOTES

- ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- Long Term Gross Alpha Detection Limit: 0.8 pCi/L; Long Term Gross Beta Detection Limit: 1.8 pCi/L
- pCi/L = picocuries per liter
- Radium 226 Detection Limit: 0.1 pCi/L; Radium 228 Detection Limit: 0.8 pCi/L
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- Short Term Gross Alpha Detection Limit: 1.1 pCi/L; Short Term Gross Beta Detection Limit: 1.8 pCi/L
- ND:None Detected
- Sample collected by client, analyzed as received
- pH tested in lab, chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : 14000903

Date Reported: 11/14/2014

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 #: 98290 Account #: 1930
Reference: Steuart & Kret Lot 22 Company: Fogle's Well Drilling
Location: 6840 Owings Overlook Way Requested By: Dave Fogle
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 12/16/2014 1307 Site: Pressure Tank
Date/Time Rec'd: 12/16/2014 1440 Treatment: Prior to Reverse Osmosis/Softener
Chlorine ppm: Free: ND Total: ND pH: 6.9
Collected By: J. Fogle 1974JF Well #: HO-95-2417

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|----------------------------------|---------|-------------|-----------|-----------|-------------------------|
| ✓ Bacteria, Coliform, Total, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM18 9223 | 12/17/2014 / 0930 / CCH |
| ✓ Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM18 9223 | 12/17/2014 / 0930 / CCH |

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Sample collected by client, analyzed as received
- 5 pH tested in lab, chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : 14000903

Date Reported: 12/17/2014

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 #: 97976 Account #: 1930
Reference: Steuart & Kret Lot 22 Company: Fogle's Well Drilling
Location: 6840 Owings Overlook Way Requested By: Dave Fogle
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 11/24/2014 1400 Site: Pressure Tank
Date/Time Rec'd: 11/24/2014 1602 Treatment: Prior to Reverse Osmosis/Softener
Chlorine ppm: Free: ND Total: ND pH: 7.0
Collected By: J. Fogle 1974JF Well #: HO-95-2417

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|--------------------------------|------------|-------------|-----------|-----------|-------------------------|
| Bacteria, Coliform, Total, MPN | <u>2.0</u> | MPN/ 100 ml | <1.0 | SM18 9223 | 11/25/2014 / 1015 / LLO |
| Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM18 9223 | 11/25/2014 / 1015 / LLO |

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Sample collected by client, analyzed as received
- 5 pH tested in lab, chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : 14000903

Date Reported: 11/25/2014

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 #: 97794 Account #: 1930
Reference: Steuart & Kret Lot 22 Company: Fogle's Well Drilling
Location: 6840 Owings Overlook Way Requested By: Dave Fogle
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 11/11/2014 0850 Site: Pressure Tank
Date/Time Rec'd: 11/11/2014 1525 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.9
Collected By: J. Fogle 1974JF Well #: HO-95-2417

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|--------------------------------|------------|-------------|-----------|-----------|-------------------------|
| Bacteria, Coliform, Total, MPN | <u>4.2</u> | MPN/ 100 ml | <1.0 | SM18 9223 | 11/12/2014 / 1000 / LLO |
| ✓ Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM18 9223 | 11/12/2014 / 1000 / LLO |

NOTES

- 1 Revised Report to show Corrected Collection and Received Date 11/13/14 LLO
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 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 Sample collected by client, analyzed as received
- 6 pH tested in lab, chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : 14000903

Date Reported: 11/13/2014

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 #: 97461 Account #: 1930
Reference: Steuart & Kret Lot 22 Company: Fogle's Well Drilling
Location: 6840 Owings Overlook Way Requested By: Dave Fogle
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 11/3/2014 1315 Site: Pressure Tank
Date/Time Rec'd: 11/3/2014 1550 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.9
Collected By: J. Fogle 1974JF Well #: HO-95-2417

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|--------------------------------|-------------|-------------|-----------|--------------------|------------------------|
| Bacteria, Coliform, Total, MPN | <u>30.6</u> | MPN/ 100 ml | <1.0 | SM18 9223 | 11/4/2014 / 1000 / BCD |
| ✓ Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM18 9223 | 11/4/2014 / 1000 / BCD |
| ✓ Nitrate | <1.0 | mg/L | 10 | 601 | 11/4/2014 / 1300 / CRS |
| ✓ Turbidity | 6.92 | NTU | <10 | SM18 2130B | 11/4/2014 / 1350 / CRS |
| ✓ Sand | NS | mg/L | 5 | Visual/Gravimetric | 11/4/2014 / 1350 / CRS |

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 Sample collected by client, analyzed as received
- 8 pH tested in lab, chlorine level tested on site

Reason for Test : Use & Occupancy
Building Permit # : 14000903

Date Reported: 11/5/2014