

C1 0826 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/CD USE ONLY DATE Received MM DD YY 08 13 14 DATE WELL COMPLETED MM DD YY 7-10-14 Depth of Well 22 200 26 9/1/14 OF (KW) 28 29 30 31 32 33 34 35 36 37 PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-2697

OWNER M.B. Highland Reserve STREET OR RFD Point Ridge Dr TOWN Highland SUBDIVISION Regan Property SECTION LOT 5

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: Brown shale (0-44), Gray Limestone (44-180), White & Gray (180-200) ✓

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (N) TYPE OF GROUTING MATERIAL (C) (M) (B) (C) CEMENT BENTONITE CLAY NO. OF BAGS 22 NO. OF POUNDS 2068 GALLONS OF WATER 132 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 34 ft.

CASING RECORD casing types insert appropriate code below (S) (T) (C) (O) (P) (L) (O) (T) STEEL CONCRETE PLASTIC OTHER

MAIN CASING TYPE (S) (T) Nominal diameter top (main) casing (nearest inch) 06 Total depth of main casing (nearest foot) 56

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) STEEL BRASS BRONZE PLASTIC OPEN HOLE OTHER

DEPTH (nearest ft.) HO 56 200

SCREEN RECORD (continued) SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) from 58 to 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

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 12 METHOD USED TO MEASURE PUMPING RATE 1000 WATER LEVEL (distance from land surface) BEFORE PUMPING 38 ft. WHEN PUMPING 25 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 36 PUMP HORSE POWER 37 41 PUMP COLUMN LENGTH (nearest ft.) 43 47 CASING HEIGHT (circle appropriate box and enter casing height) (+) above ( ) below LAND SURFACE 02 (nearest foot)

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) 39.1881027 76.9417877

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y) (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 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 MSD 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)

B 1 20714

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO -95 - 2697

546306-C please type

fill in this form completely

Date Received (APA) 04/16/14

OWNER INFORMATION

M3 Highland Reserve LLC, 1686 E Gude Dr, Rockville MD 20850

B 3

LOCATION OF WELL

Howard County, Regan Property, SECTION 44-46 LOT 48-50, Highland

DRILLER INFORMATION

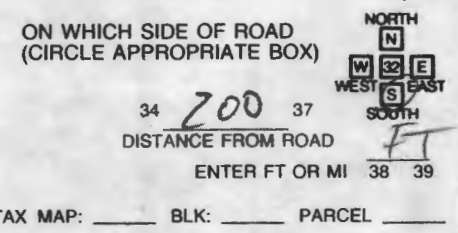
Allen Compton MS D 009, Fogle's Well Drilling LLC, PO Box 207 Woodbine, MD 21797, Signature: Allen Compton, Date: 4-10-14

B 4

SOURCES OF DRILLING WATER

- 1.
2.
3.

Point Ridge Dr



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)

- 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
O OPEN LOOP GEOTHERMAL
C CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard A530307 13, COUNTY NAME COUNTY NO., STATE SIGNATURE INSERT S, DATE ISSUED 05/27/2014, CO SIGNATURE, EXP. DATE 5/27/15

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

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

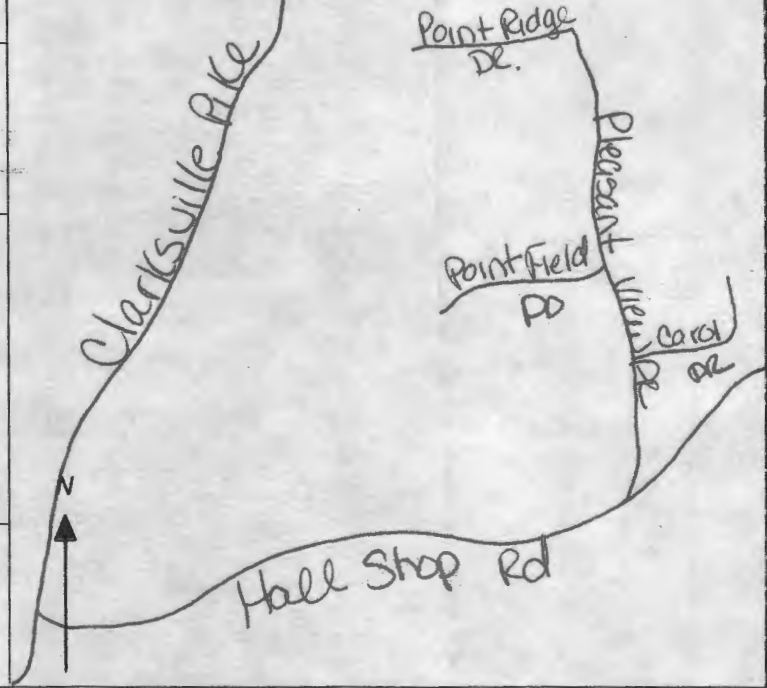
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- 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 DEEPEM AN EXISTING WELL
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 HO 2014G002, PERMIT No. HO -95 -2697

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



SPECIAL CONDITIONS

Radium Sample required @ yield test

DRILLER: COMPLETE THIS APPLICATION AND RETURN ALL PARTS OF THIS FORM INTACT TO THE ENVIRONMENTAL AGENCY IN THE COUNTY IN WHICH THE WELL IS TO BE DRILLED. PRESS FIRMLY FOR FOURTH COPY.

EMERGENCY/TEMP NO. IF ANY

<b>B 1</b>	<b>20714</b>	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL <i>546306-C</i> please type	STATE PERMIT NUMBER <b>HO-95-2697</b> <small>fill in this form completely</small>
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**OWNER INFORMATION**

Date Received (APA) **041614**  
8 MM DD YY 13

**MB Highland Reserve LLC**  
15 Last Name Owner First Name 34

**1686 E Gude Dr**  
36 Street or RFD 55

**Rockville MD 20850**  
57 Town 70 State 72 Zip 76

**B 3** LOCATION OF WELL

**Howard** 8 COUNTY 21

**Regan Property** 23 SUBDIVISION 42

SECTION **44** LOT **5** 48 50

**Highland** 52 NEAREST TOWN 71

**DRILLER INFORMATION**

**Allen Compton MS 0009**  
76 Driller's Name License No. 81

**Fogles Well Drilling LLC**  
Firm Name

**PO Box 202 Woodbine, MD 21797**  
Address

**Allen Compton 4-10-14**  
Signature Date

**B 4** SOURCES OF DRILLING WATER

**Point Ridge Dr** 11 STREET ADDRESS 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH  WEST  EAST  SOUTH

**34 200 37** DISTANCE FROM ROAD FT 38 39

TAX MAP: \_\_\_\_\_ BLK: \_\_\_\_\_ PARCEL \_\_\_\_\_

**B 2** WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) **5** 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) **500** 14 20

**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

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

**Howard A530307 13**  
COUNTY NAME COUNTY NO.

STATE SIGNATURE \_\_\_\_\_ INSERT S → 41

DATE ISSUED **05/27/2014** **RAT** **5/27/15**  
43 MM DD YY 48 CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL **300** FEET 24 28

APPROXIMATE DIAMETER OF WELL **6** NEAREST INCH

**METHOD OF DRILLING** (circle one)

BORED (or Augered)  JETTED  Jetted & DRIVEN

AIR-ROTary  AIR-PERCussion  ROTARY (Hydraulic Rotary)

CABLE  REVerse-ROTary  DRive-POINT

other \_\_\_\_\_

**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

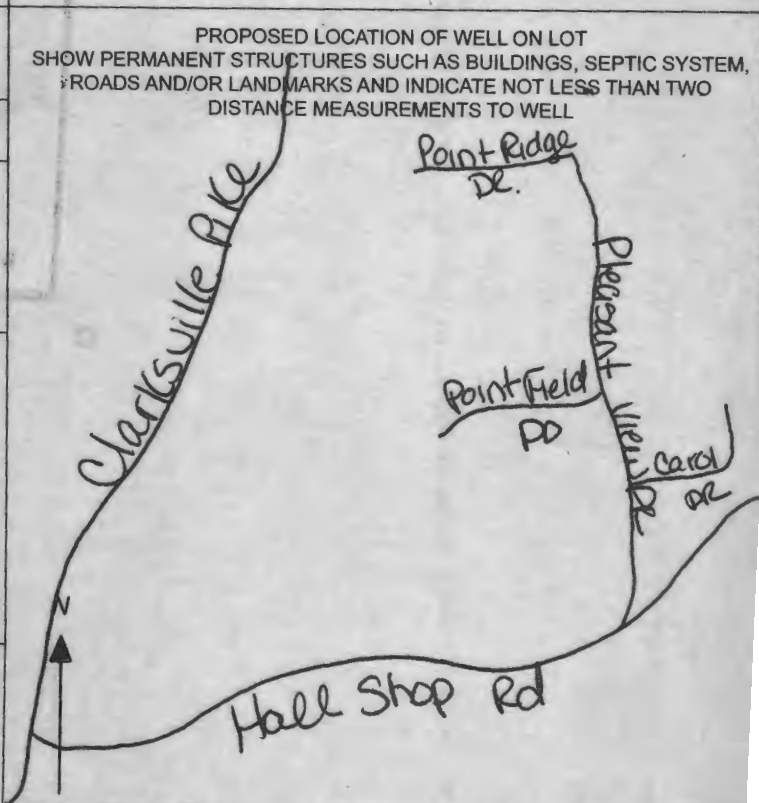
THIS WELL WILL DEEPEEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) 41 \_\_\_\_\_ 52

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

APPROX. PERMIT NUMBER **HO 20140002**

PERMIT No. **HO-95-2697**  
70 71 72 73 74 75 76 77 78 79



SPECIAL CONDITIONS  
NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED- **Radium Sample required @ mold test**



**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 638  
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: Mitchell & Best Telephone #: 301-252-0126  
Subdivision: HIGHLAND RESV Lot #: 5 Well Tag #: HO-95-2697J  
Site Address: 12348 PAINT RIDGE DR

<b><u>Submersible Pump Data</u></b>	<b><u>Pitless Adapter</u></b>	<b><u>Well Cap and Electric Conduit</u></b>
Make: <u>Schaefer</u>	Make: <u>CAMPBELL</u>	Two piece watertight cap: <u>✓</u>
Model #: <u>1/2 HP</u>	Model #: <u>PA 800</u>	Screened, vented well cap: <u>✓</u>
Pump Capacity: <u>10</u> GPM	Depth: <u>48"</u> (36" min)	Cap secured to casing: <u>✓</u>
Well Yield: <u>12</u> GPM	NSF approved: <u>✓</u>	Conduit min 18" B.G.: <u>✓</u>
Depth of well encountered at time of pump installation: <u>220</u> (feet)		Conduit secured to well cap: <u>✓</u>

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 N/A

<b><u>Piping to house</u></b>	<b><u>House Connection</u></b>
Type: <u>PIV</u>	PVC sleeved to undisturbed soil at wall penetration: <u>YES</u>
PSI: <u>200</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 10/2/18

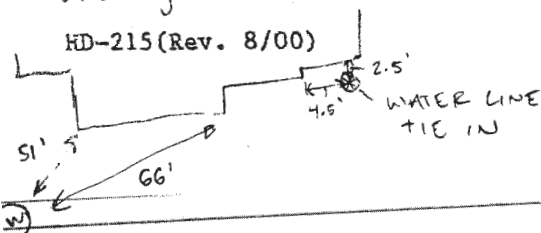
**For Health Department Use Only - Not to be completed by Installer**

Date Insp. Requested: 10/2/18 Date Insp. Approved: 10/03/2018

Inspection Data: Pitless adapter and water supply line at least 36" below grade	<u>✓</u>	must backfill to 36" line marked
Two piece cap installed and attached to casing securely	<u>✓</u>	
Elec. conduit extends at least 18" below grade/attached to cap properly	<u>✓</u>	10/03/2018 @ on conduit
Safety rope installed inside of well casing	<u>✓</u>	BACKFILL OK
Correct well tag attached properly and casing 8" above finished grade	<u>✓</u>	
Water supply line sleeved adequately at house connection	<u>✓</u>	line covered @ house
Adequate grout observed below pitless adapter	<u>✓</u>	

Sleeve under driveway

KD-215 (Rev. 8/00)



10/02/2018 @  
TIC IN UNDER FOOTER.

## Wolf, Kevin

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**From:** Wolf, Kevin  
**Sent:** Thursday, January 03, 2019 11:56 AM  
**To:** Janet Bieber; Martin, Sharhonda  
**Cc:** Algie Risinger; Mike Smith; Jemoseman@wellwatersolutions.net  
**Subject:** RE: RUSH- U&O - Lot 5- 12348 Point Ridge Drive, Fulton, MD 20759  
**Attachments:** Lab Results Lot 5 12348 Point Ridge Drive, Fulton, MD 20759 December 20....pdf; Radium Agreement revised 7.16.18.pdf; [Untitled]\_2019010311555806.pdf

Janet,

If I am reading this analysis report correctly, samples were collected post-treatment (water softener) that indicates a combined radium 226/228 at **7.1 pCi/L**. This does not meet the EPA regulatory standard for the combined radium 226/228 level of 5.0 pCi/L. With the initial gross alpha/beta levels in the "teens" (see attached), it is hard to believe that a water softener could report these kind of numbers. You may want to double check the sampler/treatment/reporting, etc. for any inconsistencies or deficiencies. If all is confirmed, then you will need to install additional treatment (i.e. kitchen RO POU) and collect pre and post treatment samples for **gross alpha/beta long term** and **radium 226/228**.

Mike/Algie – Knowing that these kind of radium samples can take a long time process results, you may elect to discuss this situation with the homeowners and request a "temperory" ICOP letter to be issued. At a minimum, I would need the radium agreement form (attached) completed, signed and recorded with land records and confirmation (i.e. invoice) that the POU RO unit has been installed with the above mentioned samples scheduled to be taken. Let me know if you have any questions.

Thanks,

Kevin M. Wolf, LEHS, REHS/RS  
Groundwater Mgmt. Sec. Supervisor  
Well & Septic Program  
Bureau of Environmental Health  
8930 Stanford Blvd.  
Columbia, MD 21045  
(o) 410-313-2645  
(f) 410-313-2648



[kwolf@howardcountymd.gov](mailto:kwolf@howardcountymd.gov)

### CONFIDENTIALITY NOTICE

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-----Original Message-----

From: Janet Bieber [mailto:jbieber@wellwatersolutions.net]  
Sent: Thursday, January 03, 2019 9:43 AM  
To: Wolf, Kevin; Martin, Sharhonda  
Cc: Algie Risinger; Mike Smith; Jemoseman@wellwatersolutions.net  
Subject: Fw: RUSH- U&O - Lot 5- 12348 Point Ridge Drive, Fulton, MD 20759

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Good Morning!

We are following up to check on the status of the ICOP letter. They are having the final Inspection today and the Inspector is looking for the ICOP letter so they can get the U&O for this property. Please let us know as soon as possible.  
Thanks, Janet

Thank you,  
Janet Walker Bieber  
Well Water Solutions, Inc.  
301-674-3137  
410-935-7185  
www.wellwatersolutions.net  
www.facebook.com/wellwatersolutions.net

Well Water Solutions, Inc. is the answer for all of your well concerns.  
Ask us about our Well Warranty, Inspections and Services for Residential and Real estate transactions

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From: Janet Bieber  
Sent: Thursday, December 27, 2018 10:41 AM  
To: Wolf, Kevin; Howard County Martin, Sharhonda  
Cc: Algie Risinger; Mike Smith; Jemoseman@wellwatersolutions.net  
Subject: RUSH- U&O - Lot 5- 12348 Point Ridge Drive, Fulton, MD 20759

Good Morning!

Mitchell and Best is looking to obtain the ICOP Letter for the U&O on the following Property. This is an Urgent request for Mitchell & Best due to the date they are scheduled to settle on January 30, 2019.

Lot 5- 12348 Point Ridge Drive, Fulton, MD 20759  
Well Tag #HO-95-2697  
Building Permit #B-18000331

Please refer to the attached passing Potability and Radium (Gross Alpha Short Term and Long Term 226/228) Water Analysis for the following Mitchell & Best Lot. All Samples were collected Post Treatment - After the Water Softener on December 10, 2018.

Should you need any additional information please let us know as soon as you can. Thanking you in advance for your assistance, we truly appreciate it.

Thank you,  
Janet Walker Bieber  
Well Water Solutions, Inc.  
301-674-3137  
410-935-7185  
[www.wellwatersolutions.net](http://www.wellwatersolutions.net)  
[www.facebook.com/wellwatersolutions.net](http://www.facebook.com/wellwatersolutions.net)

Well Water Solutions, Inc. is the answer for all of your well concerns.  
Ask us about our Well Warranty, Inspections and Services for Residential and Real estate transactions

SEND REPORT TO: Bert Nixon DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston St., Baltimore, MD 21201

Robert A. Myers, Ph.D., Director

Lab No.

Howard County Health Department  
Bureau of Environmental Health  
8930 Stanford Blvd.  
Columbia, Maryland 21045

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property - Lot 5

County: Howard

Sample Source: Well "Point Ridge Dr." (HC2697)

Location: HO-95-2697

(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A  
Bottle B

Radon-222 Field Blank  
Bottle A  
Bottle B

County 13

Plant No.

CHECK (one per Box)

Type
Drinking Water <input checked="" type="checkbox"/>
Landfill <input type="checkbox"/>
Stream <input type="checkbox"/>
Other <input type="checkbox"/>

Service
Community <input type="checkbox"/>
Non-Community <input type="checkbox"/>
Private <input checked="" type="checkbox"/>
Other <input type="checkbox"/>

Point of Collection
Source (Raw) <input checked="" type="checkbox"/>
Distribution (treated) <input type="checkbox"/>
MCL <input type="checkbox"/>

Testing
Emergency <input type="checkbox"/>
Routine <input checked="" type="checkbox"/>
Recheck <input type="checkbox"/>
Special <input type="checkbox"/>

Submitters Code:

Federal Project: S

Collector: R. Rappaport

Telephone No.: 410-313-1781

Date Collected: 7/10/14

Time Collected: 11:30 a.m.

Field pH:

Field Chlorine:

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Remarks: Sample taken during yield test

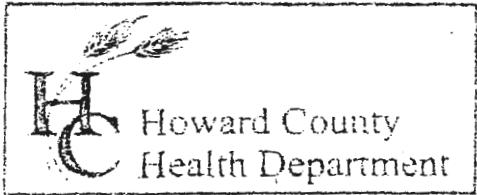
TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000						
<input checked="" type="checkbox"/> Gross Beta	4100						
<input type="checkbox"/> Radium-226	4020						
<input type="checkbox"/> Radium-228	4030						
<input type="checkbox"/> Total Uranium	4006						
<input type="checkbox"/> Radon-222 (Bottle A)	4004						
<input type="checkbox"/> Radon-222 (Bottle B)	4004						
<input type="checkbox"/> Radon Field Blank A	4004						
<input type="checkbox"/> Radon Field Blank B	4004						
<input type="checkbox"/> Tritium							
<input type="checkbox"/>							
<input type="checkbox"/>							

Date Received: Received By:

Data Release Signature: Date:

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?			
Sample pH <2.0?			
Received within holding time?			

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](http://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 Benchmark Engineering  
(professional land surveyor or company employing professional land surveyors)  
on 4-4-14 (date) and does not require a site inspection.
- 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

Howard County Health Department  
Bureau of Environmental Health  
8930 Stanford Blvd.  
Columbia, Maryland 21045

State of Maryland  
DHMH - Laboratories Administration  
Division of Environmental Sciences  
RADIATION LABORATORY  
1770 Ashland Avenue  
Baltimore, Maryland 21205

Lab No. 02-017130

LABORATORY ANALYSIS REQUEST FORM

Fedex to Florida Lab  
LOT 5  
RUBEN PROPERTIES  
HOWARD

Plant/Site Name: Mike Smith Mitchell

County: \_\_\_\_\_

Sample Source: 12348 Point Ridge Dr

Location: \_\_\_\_\_

Radon-222 Bottle A HC12348LPPE Radon-222 Field Blank  
Bottle B \_\_\_\_\_

(Well no., lab sink, sample tap, etc.)

Bottle A \_\_\_\_\_  
Bottle B \_\_\_\_\_

County 13

Plant No. \_\_\_\_\_

CHECK (one per Box)

Type	Service	Point of Collection	Testing
Drinking Water <input checked="" type="checkbox"/>	Community <input type="checkbox"/>	Source (Raw) <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"/>

Submitters Code: \_\_\_\_\_

Federal Project: 3

Collector: Borislav Shklyar

Telephone No.: 410-313-1777

Date Collected: 1/14/19

Time Collected: 10:00 a.m. \_\_\_\_\_ p.m.

Field pH: \_\_\_\_\_

Field Chlorine: \_\_\_\_\_

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Remarks: SAMPLES TAKEN FROM WATER TANK BEFORE WATER TREATMENT

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000						
<input checked="" type="checkbox"/> Gross Beta	4100						
<input checked="" type="checkbox"/> Radium-226	4020						
<input checked="" type="checkbox"/> Radium-228	4030						
<input type="checkbox"/> Total Uranium	4006						
<input type="checkbox"/> Radon-222 (Bottle A)	4004						
<input type="checkbox"/> Radon-222 (Bottle B)	4004						
<input type="checkbox"/> Radon Field Blank A	4004						
<input type="checkbox"/> Radon Field Blank B	4004						
<input type="checkbox"/> Tritium							
<input type="checkbox"/>							
<input type="checkbox"/>							

Date Received: \_\_\_\_\_ Received By: \_\_\_\_\_  
Data Release Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?			
Sample pH < 2.0?			
Received within holding time?			

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

Howard County Health Department  
 Bureau of Environmental Health  
 8930 Stanford Blvd.  
 Columbia, Maryland 21045

STATE OF MARYLAND  
 DHMH - Laboratories Administration  
 Division of Environmental Sciences  
**RADIATION LABORATORY**  
 1770 Ashland Avenue  
 Baltimore, Maryland 21205

Lab No.

*FedEx to Florida Lab  
 1/23/19*

**LABORATORY ANALYSIS REQUEST FORM**

Plant/Site Name: MIKE SMITH MITCHELL County: HOWARD

Sample Source: 12348 Point Ridge Dr. Highland Location: \_\_\_\_\_

Radon-222 Bottle A HC12348 LPOST Radon-222 Field Blank Bottle A \_\_\_\_\_  
 Bottle B \_\_\_\_\_ Bottle B \_\_\_\_\_

County 13 Plant No. \_\_\_\_\_

CHECK (one per Box)

Type	
Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Service	
Community	<input type="checkbox"/>
Non-Community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Point of Collection	
Source (Raw)	<input type="checkbox"/>
Distribution (treated)	<input checked="" type="checkbox"/>
MCL	<input type="checkbox"/>

Testing	
Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Submitters Code: \_\_\_\_\_ Federal Project: 5

Collector: Boleslav Shkapa Telephone No.: 410-913-1787

Date Collected: 1/14/19 Time Collected: 10:00 a.m. \_\_\_\_\_ p.m.

Field pH: 8.2 Field Chlorine: 0.0

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Remarks: SAMPLE TAKEN FROM KITCHEN SINK  
 AFTER R/O SYS

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input type="checkbox"/> Gross Alpha	4000						
<input type="checkbox"/> Gross Beta	4100						
<input checked="" type="checkbox"/> Radium-226	4020						
<input checked="" type="checkbox"/> Radium-228	4030						
<input type="checkbox"/> Total Uranium	4006						
<input type="checkbox"/> Radon-222 (Bottle A)	4004						
<input type="checkbox"/> Radon-222 (Bottle B)	4004						
<input type="checkbox"/> Radon Field Blank A	4004						
<input type="checkbox"/> Radon Field Blank B	4004						
<input type="checkbox"/> Tritium							
<input type="checkbox"/>							
<input type="checkbox"/>							


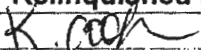
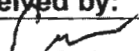
Date Received: \_\_\_\_\_ Received By: \_\_\_\_\_

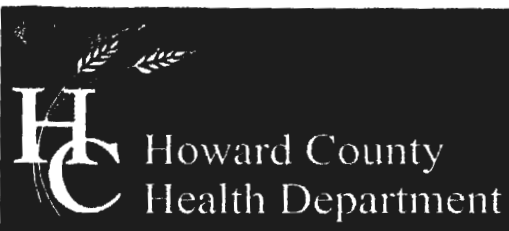
Data Release Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?			
Sample pH <2.0?			
Received within holding time?			

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

Chain of Custody

	Florida Radiochemistry Services, Inc.			FL Certification E83033		
	5456 Hoffner Ave., Suite 201 Orlando, FL 32812					
	Ph.(407)382-7733					
	Fax(407)382-7744					
	Email: flradiochemistry@cfl.rr.com					
Company Name:	Howard County Health Dept			Phone #	(410) 313-1773	
Address:	8930 Stanford Blvd.			Fax #	(410) 313-2648	
City / State / Zip	Columbia, MD 20145					
Send Report to:	Bert Nixon, bnixon@howardcountymd.gov					
Additional Report:						
Invoice to:	Bert Nixon					
Project I.D.						
P.O. #						
Sample I. D.	Date / Time Sampled	Sample # of	Pres.	Analysis	Remarks	
(Sample Location)		Type	Btls	Requested		
HC12348L- Pre	1/14/2019	Raw	1	HNO3	Gross Alpha / Beta (Long Term)	
HC12348L- Pre	1/14/2019	Raw	1	HNO3	Radium 226/228	
HC12348L- Post	1/14/2019	Treat	1	HNO3	Radium 226/228 Post R/O	
HC12318L- Post	1/7/2019	Treat	1	HNO3	Gross Alpha / Beta (Long Term) Post Softner	
HC12318L- Pre	1/7/2019	Raw	1	HNO3	Gross Alpha / Beta (Long Term)	
Relinquished by:	Date/Time			Sampled By:		
	1/23/19 1430m			Boleslav Shklyar	410-313-1787	
Received by:	Date/Time					
	1/23/19 1:45pm					



## Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

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

Twitter: HowardCoHealthDep

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

Lot 5

### AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and Robert Horacek ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 12348 Point Ridge Drive, Fulton, MD 20759 and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 34, Block # 24, Parcel # 200, Deed Reference # \_\_\_\_\_ and Tax Account # 05-597438 ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have and individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit HO95-2697 that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi /L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.


NOW THEREFORE, the parties have agreed to the following terms and conditions:


1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department

shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).

3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warranty or guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department and the Owner. There are no additional terms other than as contained in this Agreement. This Agreement may not be modified except in writing signed by each of the parties or their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

Robert C Horacek	12/20/2018		12/21/18
Owner	Date	Witness	Date

	1/10/2019	Witness	Date
Howard County Health Department	Date		



Florida Radiochemistry Services, Inc.

Analysis Report

Lab Sample I.D.	1901171-01	1901171-02	1901171-03
Client I.D.	HC12348L - Pre	HC12348L - Pre	HC12348L - Post
Gross Alpha	6.6		
Error +/-	1.8		
MDL	1.3		
EPA Method	900.0		
Prep Date	01/29/19		
Analysis Date	01/30/19		
Analyst	MJN		
Gross Beta	20.0		
Error +/-	2.2		
MDL	2.2		
EPA Method	900.0		
Prep Date	01/29/19		
Analysis Date	01/30/19		
Analyst	MJN		
Radium 226		2.3	0.6
Error +/-		0.3	0.2
MDL		0.2	0.1
EPA Method		903.1	903.1
Prep Date		01/31/19	01/31/19
Analysis Date		02/07/19	02/07/19
Analyst		MJN	MJN
Radium 228		6.4	0.9
Error +/-		0.9	0.5
MDL		0.7	0.8
EPA Method		Ra-05	Ra-05
Prep Date		01/31/19	01/31/19
Analysis Date		02/07/19	02/07/19
Analyst		SN	SN
Units	pCi/l	pCi/l	pCi/l

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

February 11, 2019

**Mr. Mike Smith Mitchell**  
12348 Point Ridge Drive  
Highland, Maryland 20777

**RE: Lot 5 Reagan Property**  
12348 Point Ridge Drive  
Highland, Maryland 20777

Dear Mr. Mitchell:

Pre and post-treatment samples were collected on January 14, 2019 and submitted to Florida Radiochemistry (FRC) Laboratories to evaluate the presence of **Gross Alpha** and **Gross Beta** and **Radium 226 / 228** in your well water supply and effectiveness of existing treatment. **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 long term pre-treatment screening (sample taken from the water pressure tank – prior to R/O treatment present) revealed a **Gross Alpha** of  $6.6 \pm 1.8$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $20.0 \pm 2.2$  pCi/L. The **Gross Alpha** result was below its maximum contaminant level (MCL) of 15 pCi/L, while the **Gross Beta** level was below (though higher than typically seen) its targeted standard of 50 pCi/L (roughly equivalent to the annual dose rate of 4 millirems/year).

Additionally, pre and post-treated **Radium 226 / 228** samples were collected from the pressure tank and kitchen faucet respectively and also submitted to FRC. These naturally occurring isotopes of radium are considered the most important due to their longer half-lives and health significance. Results from the pre-treatment sample revealed a **Radium 226** level of  $2.3 \pm 0.3$  pCi/L, while the **Radium 228** level was  $6.4 \pm 0.9$  pCi/L. Here the combined **Radium 226 / 228** was above the current MCL of 5pCi/L. Results from the post-treatment sample (after R/O) revealed a **Radium 226** level of  $< 0.6 \pm 0.2$  pCi/L, while the **Radium 228** level was  $0.9 \pm 0.5$  pCi/L. Here the combined **Radium 226 / 228** was well below the current MCL of 5pCi/L.

At the time of testing and with respect to these parameters, your **Radium 226 / 228** “treated” well water supply **readily meets** EPA regulatory standards, while your “untreated” supply does not. Given these readings, **Radium 226/228** are effectively being removed by the point of use R/O unit. Though the long term pre-treated **Gross Alpha** and **Gross Beta** levels also fell below respective levels, it’s clear that having the treatment is necessary to ensure that effective post-treated levels can be maintained.

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, Director  
Bureau of Environmental Health

✓ Enclosure

cc: Property file

TEMPORARY INTERIM CERTIFICATE OF POTABILITY  
**TEMPORARY DEVIATION FOR RADIUM**  
Expiration Date – March 1<sup>st</sup>, 2019

January 15, 2019

Homeowner  
12348 Point Ridge Drive  
Fulton, MD 20759

**RE: Highland Reserve, Lot 5**  
**12348 Point Ridge Drive**  
**Building Permit: B18000331**  
**Well Permit: HO-95-2697**

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 **10/3/2018**. Final approval of the well line connection to the dwelling was granted on **10/3/2018**. The well construction was completed on **7/10/2014**. Water samples were collected on **12/10/2018**.

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 **7/10/2014**. Results showed a Gross Alpha level of **12.4 ± 2.3 pCi/L** and Gross Beta level of **14.2 ± 2.3 pCi/L**. The Gross Alpha and Beta results were well above its maximum contaminant level (MCL) of 15 pCi/L.

**This is a temporary deviation to allow additional time for testing your well water system for Radium. Submission of water sample results must be obtained by the Health Department within the allowed 45 day period for the Interim Certificate of Potability.**

This Department will grant a **temporary deviation** to the Interim Certificate of Potability on condition that water sample results for short term gross alpha/beta are submitted to this Department **within 45 days**. Those results must indicate that the radionuclide levels meet a Gross Alpha level of less than **15 pCi/L**, and a Gross Beta level of less than **50 pCi/L**.

**This Temporary Interim Certificate of Potability will expire 45 days from the date of issuance.** Failure to submit the required radium sample results and obtain an Interim Certificate of Potability before the expiration date 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.



**Bureau of Environmental Health**  
8930 Stanford Blvd | Columbia, MD 21045  
410.313.2640 - Voice/Relay  
410.313.2648 - Fax  
1.866.313.6300 - Toll Free

---

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

Please contact (410) 313-1773 to schedule a 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,

Kevin M. Wolf, L.E.H.S., REHS/R.S., Supervisor  
Groundwater Management Section  
Well & Septic Program

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

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

**INTERIM CERTIFICATE OF POTABILITY**  
**PERMANENT DEVIATION FOR RADIUM**

**Expiration Date – AUGUST 21, 2019**

February 21, 2019

Homeowner  
12348 Point Ridge Drive  
Fulton, MD 20759

**RE: Highland Reserve, Lot 5**  
12348 Point Ridge Drive  
**Building Permit: B18000331**  
**Well Permit: HO-95-2697**

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 **10/3/2018**. Final approval of the well line connection to the dwelling was granted on **10/3/2018**. The well construction was completed on **7/10/2014**. Water samples were collected on **12/10/2018**.

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 **7/10/2014**. Results showed a Gross Alpha level of **12.4 ± 2.3 pCi/L** and a Gross Beta level of **14.2 ± 2.3 pCi/L**. **This exceeds the maximum contaminant level (MCL) combined Radium 226 and 228 of 5.0 pCi/L.**

After installation of a radionuclide removal device (Reverse Osmosis), post-treatment water samples were collected on **1/14/2019** and indicated a combined Radium 226/228 level of **1.5 pCi/L** which is below the MCL of 5 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.

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

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-95-2697. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

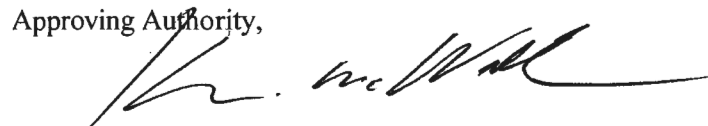
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will 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>

In closing, please refer to our "[Homeowner Fact Sheet](#)" which illustrates a better understanding for your onsite sewage disposal system. You will also find a link to Maryland Department of the Environment website which describes in further detail operation and maintenance of your septic system.

Approving Authority,



Kevin M Wolf, L.E.H.S., R.E.H.S./RS, Supervisor  
Groundwater Management Section  
Well & Septic Program

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

9106 Philadelphia Road  
Suite 106  
Rosedale, MD 21237



# HOME LAND ENVIRONMENTAL HEALTH LABS

"Healthy Homes Start Here"

State Certified  
Water Quality  
Laboratory #353

## Certificate of Analysis

Property Information	Customer Information
Property Address: <b>12348 Point Ridge Drive MB Lot-5 Fulton, MD 20759</b> Well Tag Number: <b>HO-95-2697</b> Building Permit # <b>B-18000331</b>	Name: <b>Well Water Solutions</b> Phone Number: <b>(410) 935-7185</b> Email: <b>jemoseman@wellwatersolutions.net</b>

Field Data:		
Date & Time Sampled: <b>12/10/2018 12:00 PM</b> Date & Time Received: <b>12/11/2018 9:45 AM</b> Sampled By: <b>Janet Walker</b> Sampler ID: <b>9006JW</b> Sample Location: <b>Kitchen Sink, Bacteria-Bathroom sink</b>	pH: <b>5.5</b> Chlorine Residual: <b>0.0</b> Clarity: <b>Clear</b> Sand: <b>None</b> Preservation: <b>Cool, 4°C</b>	Well Type: <b>Not noted</b> Well Height: <b>Not noted</b> Cap Type: <b>Not noted</b> Casing: <b>Not noted</b> Conduit: <b>Not noted</b>
Water Conditioning: <b>Water Softener (Samples collected post-treatment after water softener)</b>		

Parameter	Method	Result	Pass/Fail	Units	MCL	RI	Analyst	Date of Analysis
Total Coliform	Colitag	Absent	Pass	Per/100mL	Present	1.0	KMB	12/12/2018
<i>E. Coli</i>	Colitag	Absent	Pass	Per/100mL	Present	1.0	KMB	12/12/2018
Nitrate-Nitrite	EPA 353.2	ND	Pass	mg/L	10.0	0.5	KMB	12/11/2018
Turbidity	EPA 180.1	1.56	Pass	NTU	10.0	0.5	KMB	12/12/2018
Gross Alpha	EPA 900.0	5.4	Pass	pCi/L	15.0	1.1	FRC*	12/14/2018
Gross Beta	EPA 900.0	9.0	Pass	pCi/L	50.0	1.9	FRC*	12/14/2018
Radium 226	EPA 903.1	2.6	Pass	pCi/L	5.0	0.1	FRC*	12/21/2018
Radium 228	EPA Ra-05	4.5	Pass	pCi/L	5.0	0.6	FRC*	12/20/2018

Approved By: Kevin Barnaba Kevin Barnaba, Lab Director Report Date: 12/26/2018

## Wolf, Kevin

---

**From:** Wolf, Kevin  
**Sent:** Wednesday, January 09, 2019 12:07 PM  
**To:** 'Jemoseman@wellwatersolutions.net'; Janet Bieber; Mike Smith  
**Cc:** Cook, Kathleen (kcook@howardcountymd.gov); Martin, Ramar  
**Subject:** RE: MB Lot 5  
**Attachments:** RE: U&O - Lot 5- 12348 Point Ridge Drive, Fulton, MD 20759 ICOP and Radium letter ; Lab Results Lot 5 12348 Point Ridge Drive, Fulton, MD 20759 December 20....pdf

Thanks John.

Mike - I will have Kathleen Cook in our Community Hygiene program get with you on scheduling for us to come out to collect the needed water tests. Just to reiterate: we will be collecting the following radium samples:

- Pre-treatment alpha/beta long term
- Pre-treatment radium 226/228
- Post-treatment (softener/RO) radium 226/228.

Once I receive the agreement form that has been recorded with land records (copy of the receipt should suffice), I will issue the temporary ICOP based on our previous discussions. When we get the results back and if all are ok (which they should be), I will release the standard "permanent deviation" ICOP letter to the homeowners.

Kevin *Temp. ICOP to be issued with Rad Agreement rec'd. (KMW)*

---

**From:** [Jemoseman@wellwatersolutions.net](mailto:Jemoseman@wellwatersolutions.net) [mailto:[Jemoseman@wellwatersolutions.net](mailto:Jemoseman@wellwatersolutions.net)]  
**Sent:** Tuesday, January 08, 2019 9:56 PM  
**To:** Janet Bieber; Mike Smith  
**Cc:** Wolf, Kevin  
**Subject:** MB Lot 5

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Kevin.... Following up on our emails and conversations pertaining to the STRANGE RADIUM 226/228 test after the softener was installed... On Lot 5 Mitchell Best..HR As per your recommendation, we are installing a kitchen RO system on January 11, and after January 14, 2019 you can , as per your letter retest the radium at the kitchen RO.

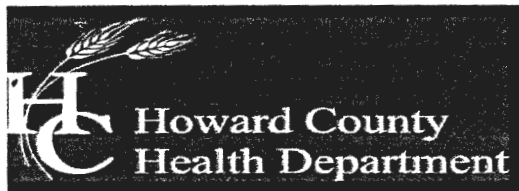
In addition, we will be testing the treated water for long term radium 226/228, to insure the softener is functional. Once the results are available, we will share them with your office.

Any questions please let me know.

John

John E Moseman  
Well Water Solutions  
410-935-7185  
[www.wellwatersolutions.net](http://www.wellwatersolutions.net)

SOLVING ALL OF YOUR WELL CONCERNS  
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## Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

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

www.hchealth.org

Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

Maura Rossman, M.D., Health Officer

August 21, 2014

MB Highland Reserve, LLC  
1686 Gude Drive  
Rockville, Maryland 20850

RE: Regan Property Lot 5  
Point Ridge Drive  
Well Tag: HO - 95 - 2697

To Whom it May Concern:

A sample was collected during a yield test on July 10, 2014 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  $12.4 \pm 2.3$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $14.2 \pm 2.3$  pCi/L. With the margin of error, the **Gross Alpha** result was barely 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 **may not meet** EPA regulatory standards. Given some of the elevated readings on other nearby lots, additional testing for **these parameters** will be required to secure the future Use & Occupancy. The installation of a water softener system and / or a reverse osmosis system may 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 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,

Bert Nixon, Director

Bureau of Environmental Health

Enclosure

✓ cc: Property file

SEND REPORT TO: Bert Nixon DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston St., Baltimore, MD 21201

Robert A. Myers, Ph.D., Director

Howard County Health Department  
Bureau of Environmental Health  
8930 Stanford Blvd.  
Columbia, Maryland 21045

RADIATION ANALYSIS REQUEST FORM

Lab No.

0120 113

Plant/Site Name: Reagan Property - Lot 5

County: Howard

Sample Source: Well " Point Ridge Dr." (HC2697)

Location: H0-95-2697

(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A \_\_\_\_\_  
Bottle B \_\_\_\_\_

Radon-222 Field Blank

Bottle A \_\_\_\_\_  
Bottle B \_\_\_\_\_

County 13

Plant No. \_\_\_\_\_

CHECK (one per Box)

Type
Drinking Water <input checked="" type="checkbox"/>
Landfill <input type="checkbox"/>
Stream <input type="checkbox"/>
Other <input type="checkbox"/>

Service
Community <input type="checkbox"/>
Non-Community <input type="checkbox"/>
Private <input checked="" type="checkbox"/>
Other <input type="checkbox"/>

Point of Collection
Source (Raw) <input checked="" type="checkbox"/>
Distribution (treated) <input type="checkbox"/>
MCL <input type="checkbox"/>

Testing
Emergency <input type="checkbox"/>
Routine <input checked="" type="checkbox"/>
Recheck <input type="checkbox"/>
Special <input type="checkbox"/>

Submitters Code: \_\_\_\_\_

Federal Project: S

Collector: R. Rappaport

Telephone No.: 410-313-1781

Date Collected: 7/10/14

Time Collected: 11:30 a.m. \_\_\_\_\_ p.m.

Field pH: \_\_\_\_\_

Field Chlorine: \_\_\_\_\_

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Remarks: Sample taken during yield test

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0120	EPA 900.0	12.4 ± 2.3	07/16/14	CWB	7/21/14
<input checked="" type="checkbox"/> Gross Beta	4100	0120	"	14.2 ± 2.3	↓	↓	↓
<input type="checkbox"/> Radium-226	4020						
<input type="checkbox"/> Radium-228	4030						
<input type="checkbox"/> Total Uranium	4006						
<input type="checkbox"/> Radon-222 (Bottle A)	4004						
<input type="checkbox"/> Radon-222 (Bottle B)	4004						
<input type="checkbox"/> Radon Field Blank A	4004						
<input type="checkbox"/> Radon Field Blank B	4004						
<input type="checkbox"/> Tritium							
<input type="checkbox"/> Gross Alpha - Conf		0120	EPA 900.0	9.5 ± 2.1	7/16/14	CWB	7/21/14
<input type="checkbox"/> Gross Beta - Conf		0120	↓	14.3 ± 2.3	↓	↓	↓

Date Received: 07/11/14

Received By: Cwatty-Boyd

Data Release Signature: Deborah Miller - JMB

Date: 7/21/14

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?	<input checked="" type="checkbox"/>		
Sample pH < 2.0?	<input checked="" type="checkbox"/>		
Received within holding time?	<input checked="" type="checkbox"/>		

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

SEND REPORT TO: Bert Nixon DEPARTMENT OF HEALTH AND MENTAL HYGIENE  
Laboratories Administration

Howard County Health Department  
Bureau of Environmental Health  
8930 Stanford Blvd.  
Columbia, Maryland 21045

201 W. Preston St., Baltimore, MD 21201  
Robert A. Myers, Ph.D., Director

Lab No. 0166-213  
~~0167-213~~ MA 7/21/14

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Field Blank County: Howard

Sample Source: HCO000 Location: Env. Lab  
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A \_\_\_\_\_ Radon-222 Field Blank Bottle A \_\_\_\_\_  
Bottle B \_\_\_\_\_ Bottle B \_\_\_\_\_

County 13 Plant No. \_\_\_\_\_

CHECK (one per Box)

Type	Service	Point of Collection	Testing
Drinking Water <input checked="" type="checkbox"/>	Community <input type="checkbox"/>	Source (Raw) <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"/>

Submitters Code: \_\_\_\_\_ Federal Project: S

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

Date Collected: 7/15/14 Time Collected: \_\_\_\_\_ a.m. 330 p.m.

Field pH: \_\_\_\_\_ Field Chlorine: \_\_\_\_\_

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Remarks: Sample taken in EH Lab w/ distilled H2O

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0166	EPA 900.6	<2.0	7/25/14	CWB	7/29/14
<input checked="" type="checkbox"/> Gross Beta	4100	0166	J	<4.0	J		J
<input type="checkbox"/> Radium-226	4020						
<input type="checkbox"/> Radium-228	4030						
<input type="checkbox"/> Total Uranium	4006						
<input type="checkbox"/> Radon-222 (Bottle A)	4004						
<input type="checkbox"/> Radon-222 (Bottle B)	4004						
<input type="checkbox"/> Radon Field Blank A	4004						
<input type="checkbox"/> Radon Field Blank B	4004						
<input type="checkbox"/> Tritium							

Date Received: 7/21/14 Received By: Kathy Jones

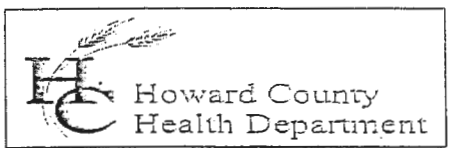
Data Release Signature: Sharon Miller-Durr Date: 7/29/14

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?	<input checked="" type="checkbox"/>		
Sample pH <2.0?	<input checked="" type="checkbox"/>		
Received within holding time?	<input checked="" type="checkbox"/>		

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

ORIG MAILSD 8/6/14

INVOICE



Bureau of Environmental Health  
Attn: Bert Nixon, Director

DATE: AUGUST 6, 2014  
DATES OF SERVICE: JULY 9, 10, 15, 16 & 18, 2014  
INVOICE #: 2014-016

8930 Stanford Boulevard, Columbia, MD 21045  
Phone 410-313-2640 Fax 410-313-2648  
www.hchealth.org

DATE	DESCRIPTION	BALANCE	AMOUNT
07/09/14	Gross alpha/beta testing performed for Reagan Property Lot 6 HO - 95 - 2698		\$45.00
07/10/14	Gross alpha/beta testing performed for Reagan Property, Lot 5 HO - 95 - 2697		\$45.00
07/15/14	Gross alpha/beta testing performed for Reagan Property, Lots 3 and 4 HO - 95 - 2695 HO - 95 - 2696		\$90.00
07/16/14	Gross alpha/beta testing performed for Reagan Property, Lot 9 HO - 14 - 0001		\$45.00
07/18/14	Gross alpha/beta testing performed for Reagan Property, Lots 7, 10 and 11 HO - 95 - 2699 HO - 14 - 0002 HO - 14 - 0003		\$135.00
			<b>AMOUNT DUE</b>
			\$360.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2014-016
Site Information	Reagan Property Lots 3,4,5,6,7,9,10 and 11
Amount Due	\$360.00

Receipt B 54589  
8/22/2014

Make Checks Payable to: Director of Finance Mail Payments to: Bureau of Env. Health