

C1 16639 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45-DAYS AFTER WELL IS COMPLETED.
COUNTY NUMBER

ST/CO USE ONLY
DATE Received
MM DD YY
8 13

DATE WELL COMPLETED
MM DD YY
8 26 14
Depth of Well
22 700 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
10-14-0010
28 29 30 31 32 33 34 35 36 37

OWNER: M.B. Highland Reserve
WELL SITE ADDRESS: Pleasant Springs Ct TOWN: Highland
SUBDIVISION: Regan Property SECTION: _____ LOT: 18

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Brown shale	0	30	
Gray Limestone	30	145	
White	145	146	✓
Gray Limestone	146	700	

GROUTING RECORD yes no
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N
TYPE OF GROUTING MATERIAL (Circle one)
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 10 NO. OF POUNDS 900
GALLONS OF WATER 60
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 35 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
 ST STEEL CO CONCRETE
 PL PLASTIC OT OTHER

MAIN CASING TYPE
ST
Nominal diameter top (main) casing (nearest inch) 06
Total depth of main casing (nearest foot) 42

OTHER CASING (if used)
EACH CASING diameter depth (feet) inch from to

SCREEN RECORD
screen type or open hole insert appropriate code below
 ST STEEL BR BRASS HO OPEN HOLE
 PL PLASTIC OT OTHER

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 26.04.04 "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 M SD 009
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. 1 D

C 2 DEPTH (nearest ft.)

1	2	3	4	5	6
8	9	11	15	17	21
23	24	26	30	32	36
38	39	41	45	47	51

ELECTRIC LOG
SLOT SIZE 1 _____ 2 _____ 3 _____
DIAMETER OF SCREEN (NEAREST INCH)
56 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) 06
PUMPING RATE (gal. per min.) 3
METHOD USED TO MEASURE PUMPING RATE 190L
WATER LEVEL (distance from land surface)
BEFORE PUMPING 34 ft.
WHEN PUMPING 132 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 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) _____
PUMP HORSE POWER _____
PUMP COLUMN LENGTH (nearest ft.) _____
CASING HEIGHT (circle appropriate box and enter casing height)
 A above } LAND SURFACE
 below } 02 (nearest foot)

LATITUDE 39.1829338
LONGITUDE 76.9429855
(DEFAULT COORD. WGS 84)

NOTES:

B 1 20791

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

Ho-14-0010 fill in this form completely

5412300-P please type

Date Received (APA)

04/10/14

OWNER INFORMATION

mB Highland Reserve LLC
1686 E. Gude Dr
Rockville md 20850

B 3 LOCATION OF WELL

Howard
Began Property
Highland

DRILLER INFORMATION

Allen Compton M50009
Eagle's Well Drilling LLC
P.O. Box 202 Woodbine Md 21797

B 4 SOURCES OF DRILLING WATER

1.
2.
3.

Present Springs Ct.
Point Ridge Dr
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD 300

B 2 WELL INFORMATION

APPROX. PUMPING RATE 5
AVERAGE DAILY QUANTITY NEEDED 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

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

REPLACEMENT OR DEEPEMED 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 DEEPEM AN EXISTING WELL

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

APPROP. PERMIT NUMBER HO 20140002
PERMIT No. HO-14-0010

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

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Radium Sample required @ the yield test

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - _____
 Location of property (road) _____
 Subdivision Regan Property Lot 18 Block _____ Plat _____ Sec. _____
 Well Driller Fogles - Allen Compton Owner MB Highland Reserve

Depth of well 700'
 Distance of measuring point (M.P.) above ground 2
 Static water level (S.W.L.) below M.P. 39

I. High rate pumping -- reservoir drawdown

Time pump started 10:00 Pumping rate 12
 Total time 45 min to reach pumping water level 132 ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL below M.P.	PUMPING RATE time to fill 5 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
10:00	34	5		12
10:15	83	5		12
10:30	122	5		12
10:45	132	20		3
11:00	132	20		3
11:15	132	20		3
11:30	132	20		3
11:45	132	20		3
12:00	132	20		3
12:15	132	20		3
12:30	132	20		3
12:45	132	20		3
1:00	132	20		3
1:15	132	20		3
1:30	132	20		3
1:45	132	20		3
2:00	132	20		3
2:15	132	20		3
2:30	132	20		3
2:45	132	20		3
3:00	132	20		3
3:15	132	20		3
3:30	132	20		3
3:45	132	20		3

**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: NATIONAL Telephone #: _____
Address: _____

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

Name (Print): _____ License# _____

***A licensed individual must perform the actual installation. Apprentices must be under the 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: _____ Telephone #: _____
Subdivision: _____ Lot #: _____ Well Tag #: HO - 14 - 0010
Site Address: _____

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: _____	Make: _____	Two piece watertight cap: _____
Model #: _____	Model#: _____	Screened, vented well cap: _____
Pump Capacity _____ GPM	Depth: _____ (36" min)	Cap secured to casing: _____
Well Yield: _____ GPM	NSF/WSC approved: _____	Conduit min 18" B.G.: _____
Depth of well encountered at time of pump installation: _____ (feet)	Conduit secured to well cap: _____	

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

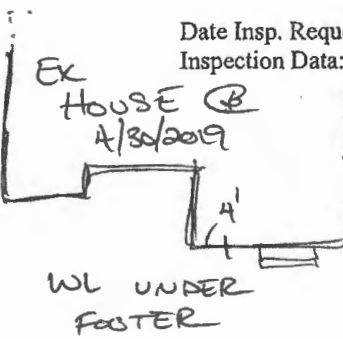
<u>Piping to house</u>	<u>House Connection</u>
Type: _____	PVC sleeve to undisturbed soil at wall penetration: _____
PSI: _____ (160 psi min)	Length of sleeve(5' minimum from foundation): _____
Depth of supply line: _____ (36" min)	Sleeve sealed properly: _____

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation _____ date _____

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

Date Insp. Requested: 4/30/2009 Date Insp. Approved: 4/30/2009 Inspector: (Signature)
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade 41" 4/30/2009 (Signature)
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly 33" 4/30/2009 (Signature)
Safety rope not outside of well cap/casing
Correct well tag attached properly and casing 8" above finished grade 28" 4/30/2009 (Signature)
Water supply line sleeved adequately at house connection
Adequate grout observed below pitless adapter



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

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM

Expiration Date – FEBRUARY 7, 2019

August 7, 2019

Homeowner
12228 Pleasant Springs Court
Fulton, MD 20759

RE: Highland Reserve, Lot 18
12228 Pleasant Springs Court
Building Permit: B19000349
Well Permit: HO-14-0010

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 **4/30/2019**. Final approval of the well line connection to the dwelling was granted on **4/30/2019**. The well construction was completed on **8/26/2014**. Water samples were collected on **7/9/2019**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

Gross Alpha and Beta samples were also collected on **8/26/2014**. Results showed a Gross Alpha level of **49.1 ± 4.9 pCi/L** and a Gross Beta level of **29.4 ± 3.1 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 (Water Softener), post-treatment water samples were collected on **7/9/2019** and indicated a combined Radium 226/228 level of **1.1 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-14-0010. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

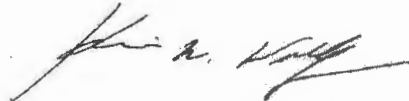
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will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

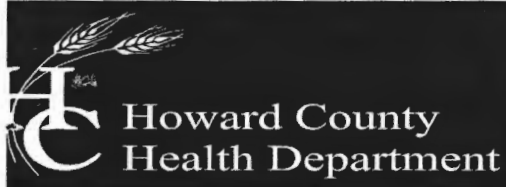
In closing, please refer to our "Homeowner Fact Sheet" which illustrates a better understanding for your onsite sewage disposal system. You will also find a link to Maryland Department of the Environment website which describes in further detail operation and maintenance of your septic system.

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



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

Maura Rossman, M.D., Health Officer

February 12, 2015

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

**RE: Regan Property Lot 18
Pleasant Springs Court
Well Tag: HO - 14 - 0010**

To Whom it May Concern:

A sample was collected during a yield test (prior to hydro-fracturing) on July 7, 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 20.5 ± 3.0 picocuries/liter (pCi/L), while the **Gross Beta** level was 7.6 ± 2.2 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. Given elevated readings (both before and after hydro-fracturing) for **Gross Alpha**, 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,

A handwritten signature in black ink that reads 'Bert Nixon'.

Bert Nixon, Director
Bureau of Environmental Health

Enclosure
cc: Property file

SEND REPORT TO:

Best Nixon

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston St., Baltimore, MD 21201

Robert A. Myers, Ph.D., Director

Lab No.

000053 -8#

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property

County: Howard

Sample Source: Pleasants Springs Ct. - Lot 18

Location: HO-14-0010

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

Radon-222 Bottle A HOKWOOD
Bottle B _____

Radon-222 Field Blank

Bottle A FBKW7714
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: -

Collector: K. Wolf

Telephone No.: 410 313 2645

Date Collected: 7-7-14

Time Collected: _____ a.m. 1:30 p.m.

Field pH: -

Field Chlorine: _____

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: Sample pH preserved < 2.0. CPM only 0.8

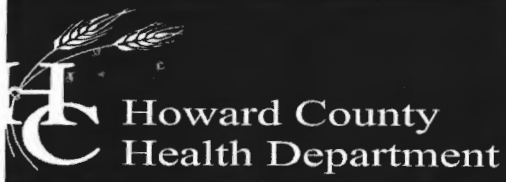
TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0053	EPA 9000	20.5 ± 3.0	7/10/14	LWB	7/14/14
<input checked="" type="checkbox"/> Gross Beta	4100	0053	'1	7.6 ± 2.2			
<input type="checkbox"/> Radium-226	4020						
<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: 07/08/14 Received By: C Watty-Boyd

Data Release Signature: Deborah Miller-Juch Date: 7/15/14

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"/>		

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



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Facebook: www.facebook.com/hocohealth

Maura Rossman, M.D., Health Officer

November 3, 2014

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

RE: Regan Property Lot 18
Pleasant Springs Court
Well Tag: HO - 14 - 0010

To Whom it May Concern:

A sample was collected during a yield test (after hydro-fracturing) on August 26, 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.

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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 that reads 'Bert Nixon'.

Bert Nixon, Director
Bureau of Environmental Health

✓ Enclosure
cc: Property file

SEND REPORT TO: Bert Nixon
Howard Co. Env. Health
8930 Stanford Blvd.
Columbia, MD 21045

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
 Laboratories Administration
 201 W. Preston St., Baltimore, MD 21201
 Robert A. Myers, Ph.D., Director

Lab No. 0510-32

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property - Lot 18 County: Howard
 Sample Source: Pleasant Springs Ct. Location: HO-14-0010
 (Well no., lab sink, sample tap, etc.)
 Radon-222 Bottle A 14-0010 Radon-222 Field Blank Bottle A Radium Blank
 Bottle B _____ Bottle B _____
 County 113 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 type="checkbox"/>
Stream <input type="checkbox"/>	Private <input checked="" type="checkbox"/>	MCL <input type="checkbox"/>	Recheck <input checked="" type="checkbox"/>
Other <input type="checkbox"/>	Other <input type="checkbox"/>		Special <input type="checkbox"/>

Submitters Code: _____ Federal Project: _____
 Collector: Brian Telephone No.: (410) 313-2643
 Date Collected: 8/26/2014 Time Collected: _____ a.m. 1:00 p.m.
 Field pH: _____ Field Chlorine: _____
 Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: Sample Collected During Yield Test after Hydrofracturing

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0510	EPA 900.0	49.1 ± 4.9	9/6/14	MS	9/8/14
<input checked="" type="checkbox"/> Gross Beta	4100	0510	I	29.4 ± 3.1	I	I	I
<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 checked="" type="checkbox"/> Gross Alpha - Conf		0510	EPA 900.0	51.4 ± 5.0	9/6/14	MS	9/8/14
<input checked="" type="checkbox"/> Gross Beta - Conf		0510	I	26.4 ± 2.9	I	I	I

Date Received: 9/3/14 Received By: Melody Scott
 Data Release Signature: Deborah Miller - JML Date: 9/10/14

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
Howard Co. Env. Health
8930 Stanford Blvd.
Columbia, MD 21045

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
 Laboratories Administration
 201 W. Preston St., Baltimore, MD 21201
 Robert A. Myers, Ph.D., Director

Lab No. 000479 27

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property - Lot 18 County: Howard
 Sample Source: Pleasant Springs Ct. Location: HO-14-0010
 Radon-222 Bottle A 14-0010 Radon-222 Field Blank Bottle A Radium Blank
 Bottle B _____ Bottle B _____
 County 113 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 type="checkbox"/>
Stream <input type="checkbox"/>	Private <input checked="" type="checkbox"/>	MCL <input type="checkbox"/>	Recheck <input checked="" type="checkbox"/>
Other _____ <input type="checkbox"/>	Other _____ <input type="checkbox"/>		Special <input type="checkbox"/>

Submitters Code: _____ Federal Project: _____
 Collector: Brian Telephone No.: (410) 313-2643
 Date Collected: 8/26/2014 Time Collected: _____ a.m. 1:30 p.m.
 Field pH: _____ Field Chlorine: _____
 Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: Sample Collected During Yield Test After Hydrofracturing

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	<u>0479</u>	<u>EPA 900.0</u>	<u>64.8 ± 5.7</u>	<u>8/28/14</u>	<u>ms</u>	<u>9/4/14</u>
<input checked="" type="checkbox"/> Gross Beta	4100	<u>0479</u>	<u>.</u>	<u>30.4 ± 3.2</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
<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"/>							

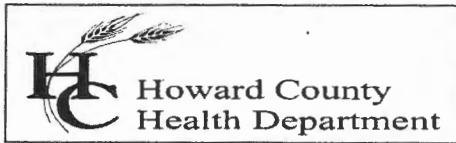
Date Received: 8/27/14 Received By: C. Watty - Boyd
 Data Release Signature: Deborah Miller - Jura Date: 9/4/14

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 MAILED 9/22

Invoice



Bureau of Environmental Health
 Attn: Bert Nixon, Director

DATE: SEPTEMBER 22, 2014
 DATES OF SERVICE: AUGUST 26, & AUG 27, 2014
 INVOICE #: 2014-022

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

BILL To: MB Highland Reserve, LLC
 1686 Gude Drive
 Rockville, MD 20850

DATE	DESCRIPTION	BALANCE	AMOUNT
08/26/14	Gross alpha/beta testing performed for Reagan Property, Lot 18 HO - 14 - 0010		\$45.00
08/27/14	Gross alpha/beta testing performed for Reagan Property, Lot 8 HO - 95 - 2700		\$90.00 ⁴⁵ COLLECTED ON ORIGINAL
			AMOUNT DUE
			\$90.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2014-022
Site Information	Reagan Property Lots 8 and 18
Amount Due	\$90.00

11/3/14
 Receipt # 55296

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

SEND REPORT TO:

Best Nixon

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston St., Baltimore, MD 21201

Robert A. Myers, Ph.D., Director

Lab No.

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property

County: Howard

Sample Source: Pleasant's Spring's Ct. - Lot 18

Location: HO-14-0010

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

Radon-222 Bottle A HOKW0010
Bottle B _____

~~Radon-222~~ Field Blank

Bottle A FBKW7714
Bottle B _____

County 13

Plant No.

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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: -

Collector: K. Wolf

Telephone No.: 410 313 2645

Date Collected: 7-7-14

Time Collected: _____ a.m. 1:30 p.m.

Field pH: -

Field Chlorine: _____

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: Sample pH preserved < 2.0. aPM only 0.8

<input type="checkbox"/>	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"/>								

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

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.

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: HCHD

County: Howard

Sample Source: Distilled H₂O

Location: Lab

Radon-222 Bottle A —

~~Radon-222~~ Field Blank

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

Bottle A FBKW7714

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 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: —

Collector: K Wolf

Telephone No.: 410 313 2645

Date Collected: 7-7-14

Time Collected: — a.m. 4:30 p.m.

Field pH: —

Field Chlorine: —

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: Field Blanks Gross α & β

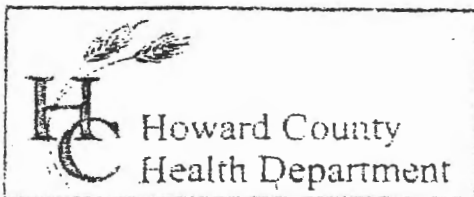
<input checked="" type="checkbox"/>	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input type="checkbox"/>	Gross Alpha	4000						
<input type="checkbox"/>	Gross Beta	4100						
<input type="checkbox"/>	Radium-226	4020						
<input type="checkbox"/>	Radium-228	4030						
<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 checked="" type="checkbox"/>	<u>Radium Field Blank</u>							

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

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

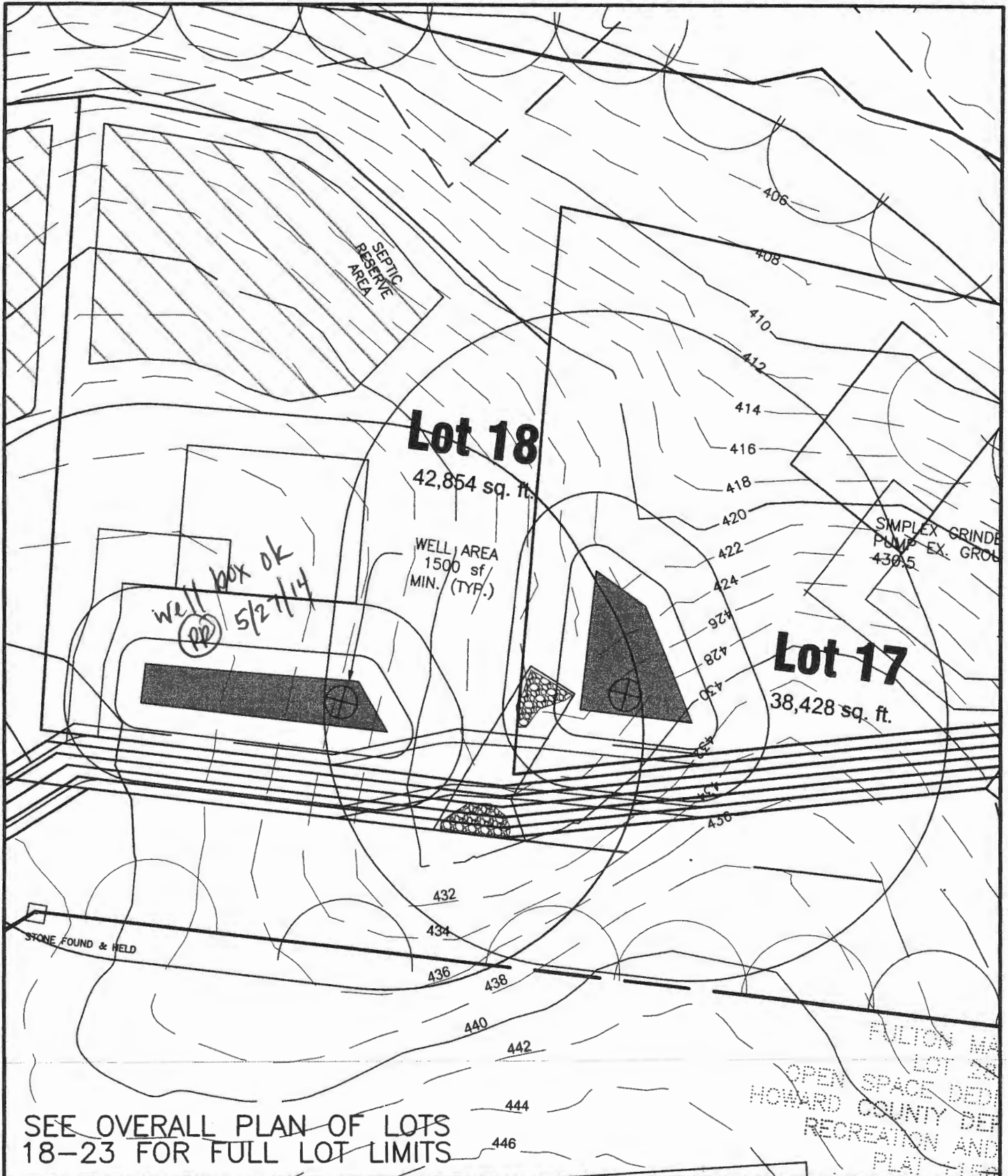
TO ALL INTERESTED PARTIES

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



SEE OVERALL PLAN OF LOTS 18-23 FOR FULL LOT LIMITS

BENCHMARK
 ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 315 • ELLICOTT CITY, MD 21043
 PHONE: 410-465-6105 FAX: 410-465-6644

WELL EXHIBIT
REGAN PROPERTY
 LOT 18

FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 3/11/2014

HOME LAND

L A B S

"Healthy Homes Start Here"
State Certified Water Quality Laboratory #353

Certificate of Analysis

Report Date: 7/12/2019

Client: Well Water Solutions, Inc.

Property Address: ~~12228~~
~~12226~~ Pleasant Springs Ct Lot 18
Fulton, MD 20759

Report No: 173427

Date & Time Sampled: 07/09/2019 9:00 am

Date & Time Received: 07/10/2019 10:55 am

Sampled By: Janet Walker 9006JW (Exp. 9/5/2021)

Preservation: Ice

Sample Point(s): Bacteria-Raw from first floor bathroom sink, All others-Raw
from kitchen sink

Water Conditioning Appears to be: None

Chlorine Residual: 0.0

Field pH: 5.8

Well Type: Drilled

Well Height: 48"

Cap Type: Sanitary

Casing: Steel

Conduit: PVC

Clarity: Clear

Sand: None Observed

Well Tag Number: HO-14-0010

Primary Contaminants

Parameter	Method	Result	Pass/Fail	Units	MCL	RL	Analyst	Date of Analysis
Bacteria-Total Coliform	Colitag Test	Absent	Pass	Per/100ml	Present	1	AND-353	07/11/2019
Bacteria-E.coli	Colitag Test	Absent	Pass	Per/100ml	Present	1	AND-353	07/11/2019
Nitrate + Nitrite as N	EPA 353.2	Not Detected	Pass	mg/l	10	0.5	Nise-139	07/12/2019

Secondary Contaminants

Parameter	Method	Result	Acceptable /High	Units	SMCL	RL	Analyst	Date of Analysis
Turbidity	EPA 180.1	4.38	Acceptable	NTU	10	0.5	AND-353	07/10/2019

Approved By

Kevin Barnaba

Kevin Barnaba, Lab Director

HOME LAND

L A B S

"Healthy Homes Start Here"
State Certified Water Quality Laboratory #353

Certificate of Analysis

Report Date: 7/18/2019

Client: Well Water Solutions, Inc.

Property Address: ~~1222~~¹²²⁸ Pleasant Springs Ct Lot 18
Fulton, MD 20759

Report No: 173430

Date & Time Sampled: 07/09/2019 4:15 pm

Date & Time Received: 07/10/2019 10:55 am

Sampled By: Janet Walker 9006JW (Exp. 9/5/2021)

Preservation: Ice

Sample Point(s): Post treatment from kitchen sink

Water Conditioning Appears to be: Water Softener

Chlorine Residual: 0.0

Field pH: 5.8

Well Type: Drilled

Well Height: 48"

Cap Type: Sanitary

Casing: Steel

Conduit: PVC

Clarity: Clear

Sand: None Observed

Well Tag Number: HO-14-0010

Primary Contaminants

Parameter	Method	Result	Pass/Fail	Units	MCL	RL	Analyst	Date of Analysis
Gross Beta	EPA 900.0	2.2	Pass	pCi/l	50.0	1.4	FRC-	07/14/2019
Radium 226	EPA 903.1	<0.02	Pass	pCi/l	5.0	0.02	FRC-	07/18/2019
Radium 228	EPA Ra-05	<0.09	Pass	pCi/l	5.0	0.09	FRC-	07/18/2019
Radium Gross Alpha	EPA 900.0	2.8	Pass	pCi/l	15	0.7	FRC-	07/14/2019

Chain of Custody PDF

Chain of Custody PDF

Radium

Approved By

Kevin Barnaba

Kevin Barnaba, Lab Director