

B 1 20711
1 2 3 6

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-14-0001
fill in this form completely

546306G 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 14-0001

Howard
Reagan Property
Highland

DRILLER INFORMATION

Allen Compton MS D 009
Fookes Well Drilling LLC
PO Box 202 Woodbine, MD 21797
Allen Compton 4-10-14

B 4

SOURCES OF DRILLING WATER

1 Well

Point Ridge Dr
ON WHICH SIDE OF ROAD
DISTANCE FROM ROAD
ENTER FT OR MI
TAX MAP: 34 BLK: 24 PARCEL 200

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

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 RRT 5/27/15
EXP. DATE

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

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) AIR-ROTARY
- JETTED AIR-PERCussion
- Jettied & DRIVEN ROTARY (Hydraulic Rotary)
- CABLE REVERSE-ROTARY
- DRIVE-POINT

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

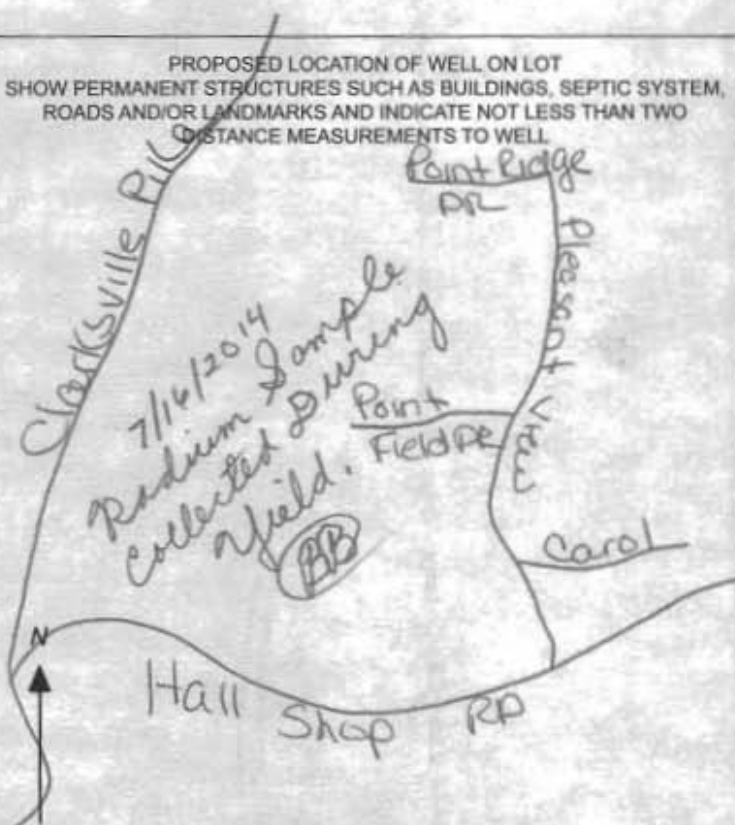
- THIS WELL WILL NOT REPLACE AN EXISTING WELL
- THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- THIS WELL WILL DEEPEM AN EXISTING WELL

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 2014 G 002
PERMIT No. HO-14-0001

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 @ the yield 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 198
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 #: _____
Subdivision: HIGHWOOD RESERVE Lot #: 9 Well Tag #: HO-14-0001
Site Address: _____

Submersible Pump Data

Make: SCHREFFER
Model #: 3/4 HI
Pump Capacity 10 GPM
Well Yield: 10 GPM

Pitless Adapter

Make: CAMPBELL
Model#: PA 500
Depth: 48 (36" min)
NSF approved: _____

Well Cap and Electric Conduit

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

Depth of well encountered at time of pump installation: _____ (feet)
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors or Cable guards are required - Must circle one N/A
Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house

Type: P14
PSI: 200 (160 psi min)
Depth of supply line: 4' (36" min)

House Connection

PVC sleeved to undisturbed soil at wall penetration: UNDER FOUNDATION
Approximate length of sleeve: 5'
Sleeve caulked and sealed properly: YES

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

Signature of company representative responsible for installation

date 10/6/17

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

Date Insp. Requested: _____ Date Insp. Approved: _____
Inspection Data: Pitless adapter and water supply line at least 36" below grade _____
Two piece cap installed and attached to casing securely _____
Elec. conduit extends at least 18" below grade/attached to cap properly _____
Safety rope installed inside of well casing _____
Correct well tag attached properly and casing 8" above finished grade _____
Water supply line sleeved adequately at house connection _____
Adequate grout observed below pitless adapter _____

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
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: _____ 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 - 0001
Site Address: 12337 Pome Ridge Dr

<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 _____

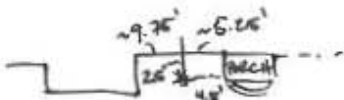
For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: 12/01/2017 Date Insp. Approved: 12/16/17 Inspector: SC
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly
Safety rope not outside of well cap/casing
Correct well tag attached properly and casing 8" above finished grade
Water supply line sleeved adequately at house connection
Adequate grout observed below pitless adapter

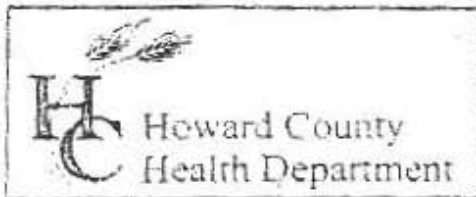
12/01/17 @ connection is under footer

12/01/2017

Ex. HOUSE



* Well coupling is 2.5' from house, ~4.5' from porch.



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

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM

Expiration Date – *October 30, 2018*

April 30, 2018

Homeowner
12337 Point Ridge Drive
Fulton, MD 20759

RE: Highland Reserve, Lot 9
12337 Point Ridge Drive
Building Permit: B17003381
Well Permit: HO-14-0001

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 **12/1/2017**. Final approval of the well line connection to the dwelling was granted on **12/6/2017**. The well construction was completed on **7/16/2014**. Water samples were collected on **4/5/2018**.

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 **7/16/2014**. Results showed a Gross Alpha level of **21.0 ± 3.0 pCi/L** and a Gross Beta level of **5.0 ± 2.0 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 **4/5/2018** and indicated a combined Radium 226/228 level of **2.0 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.**

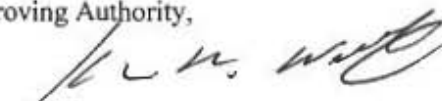
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-14-0001. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

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>

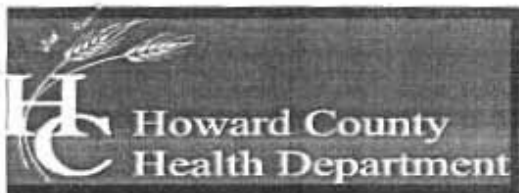
In closing, please refer to our "[Homeowner Fact Sheet](#)" which illustrates a better understanding for your onsite sewage disposal system. You will also find a link to Maryland Department of the Environments website which describes in further detail operation and maintenance of your septic system.

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

August 21, 2014

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

**RE: Regan Property Lot 9
Point Ridge Drive
Well Tag: HO - 14 - 0001**

To Whom it May Concern:

A sample was collected during a yield test on July 16, 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 21.0 ± 3.0 picocuries/liter (pCi/L), while the **Gross Beta** level was 5.0 ± 2.0 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 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 cursive script 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. 000164-173

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property - Lot 9 County: Howard
 Sample Source: Point Ridge Drive Location: HO-14-0001
(Well no., lab sink, sample tap, etc.)
 Radon-222 Bottle A HO-14-0001 Radon-222 Field Blank Bottle A Radium Blank
 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:

--

 Collector: B. Baker Telephone No.: (410) 313-2643
 Date Collected: 7/16/2014 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

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0164	EPA 900.0	21.0 ± 3.0	7/21/14	CWS	7/22/14
<input checked="" type="checkbox"/> Gross Beta	4100	0164	I	5.0 ± 2.0	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		0164	EPA 900.0	20.7 ± 3.0	7/21/14	CWS	7/22/14
<input checked="" type="checkbox"/> Gross Beta - Conf		0164	I	4.6 ± 2.0	I	I	I

Date Received: 7/17/14 Received By: [Signature]
 Data Release Signature: [Signature] Date: 7/22/14

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:

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

Lab No.

0163-17

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Field Blank County: Howard

Sample Source: _____ Location: _____

(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
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: B. Baker Telephone No.: (410) 313-2643

Date Collected: 7/16/14 Time Collected: _____ a.m. _____ p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: _____

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0163	EPA 900.0	<2.0	7/21/14	CIUB	7/22/14
<input checked="" type="checkbox"/> Gross Beta	4100	0163	I	<4.0	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 type="checkbox"/>							
<input type="checkbox"/>							

Date Received: 7/17/14 Received By: [Signature]
Data Release Signature: [Signature] Date: 7/22/14

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

9106 Philadelphia Road
Suite 108-B
Rosedale, MD 21237



HOME LAND ENVIRONMENTAL HEALTH LABS

"Healthy Homes Start Here"

State Certified
Water Quality
Laboratory #353

Property Information	Customer Information
Property Address: 12337 Point Ridge Drive Fulton, MD 20759 Well Tag Number: HO-14-0001	Name: Well Water Solutions Phone Number: (410) 935-7185 Email: jemoseman@wellwatersolutions.net

Field Data		
Date & Time Sampled: 4/5/2018 12:00PM Date & Time Received: 4/6/2018 11:03AM Sampled By: Janet Walker Sampler ID: 9006JW Sample Location: Kitchen sink	pH: 7.0 Chlorine Residual: 0.0 Clarity: Clear Sand: None Preservation: Cool, 4°C	Well Type: Not noted Well Height: Not noted Cap Type: Not noted Casing: Not noted Conduit: Not noted
Water Conditioning: Water Softener		

Parameter	Method	Result	Pass/Fail	Units	MCL	RL	Analyst	Date of Analysis
Total Coliform	Colitag	Absent	Pass	Per/100mL	Present	1.0	KMB	4/7/2018
<i>E. Coli</i>	Colitag	Absent	Pass	Per/100mL	Present	1.0	KMB	4/7/2018
Nitrate-Nitrite	EPA 353.2	2.3	Pass	mg/L	10.0	0.5	KMB	4/6/2018
Turbidity	EPA 180.1	0.85	Pass	NTU	10.0	0.5	KMB	4/6/2018
Gross Alpha**	EPA 900.0	8.7	Test for 226/228	pCi/L	15.0	-	FRC	4/12/2018
Radium 226**	EPA 903.1	0.8	Pass	pCi/L	5.0	-	FRC	4/20/2018
Radium 228**	EPA Ra-05	1.2	Pass	pCi/L	5.0	-	FRC	4/19/2018

Approved By: Kevin Barnaba Kevin Barnaba, Lab Director

Report Date: 4/20/2018



HOME LAND ENVIRONMENTAL HEALTH LABS

Understanding the Results

This narrative is intended to help the recipient to understand the results. The results listed below are only for tests commonly sampled or analyzed by Home Land Environmental Health Labs. For a full list of the Environmental Protection Agency's (EPA) Primary and Secondary Standards, go to: https://www.epa.gov/sites/production/files/2016-06/documents/npwdr_complete_table.pdf

Definitions and Acronyms

Analysist: Refers to the individual whom conducted the test.

Maximum Contamination Level (MCL): A level established by the EPA which is the "highest level of a contaminate that is allowed in drinking water." Any level that exceeds the MCL is considered not safe for human consumption.

Method: The type of analysis used to determine the results.

Not Detected (ND): Any level below the reporting limit.

Primary Drinking Water Standard: Enforceable standards developed by the EPA. Levels that exceed the MCL for a particular standard are considered to unsafe for human consumption.

Reporting Limit (RL): The lowest level that can be detected by the method used for the analysis.

Secondary Drinking Water Standard: Standards developed by the EPA. Secondary standards are generally not considered to be dangerous to human health. They may cause aesthetic or cosmetic problems to the water quality or plumbing distribution system.

***Samples were analyzed at Environmental Testing Laboratory(ETL) **Samples were analyzed at Florida Radiochemistry(FRC)**

The following table is a list of contaminants commonly sampled or analyzed in Maryland and information to help clients to understand the results.

Parameter	MCL	Type	Effects	Source	Treatment
Total Coliform	Present	Primary	Used to indicate whether potentially harmful bacteria are present	Naturally Present	Well Repair and Chlorination, UV light
<i>E. coli</i>	Present	Primary	Stomach illness	Human and Animal Fecal Waste	Well Repair and Chlorination
Nitrates	10.0 mg/L	Primary	Blue-Baby Syndrome	Fertilizers and Sewage	Reverse Osmosis
Nitrites	1.0 mg/L	Primary	Blue-Baby Syndrome	Fertilizers and Sewage	Reverse Osmosis
Lead	0.015 mg/L	Primary	Slowed Mental Development, Kidney Problems, High Blood Pressure	Plumbing Components	Reverse Osmosis, pH correction, Pipe Replacement
Gross Alpha	15.0 pCi/L	Primary	Increased risk of cancer	Naturally Occurring	Water Softener
Radium 226 & 228	5.0 pCi/L	Primary	Increased risk of cancer	Naturally Occurring	Water Softener
Volatile Organic Compounds (VOC)	Varies	Primary	Increased risk of cancer	Gas and Chemical leaks	Charcoal filter
Arsenic	0.010 mg/L	Primary	Skin Damage, Circulatory Problems, Cancer	Natural Deposits, Orchards, Industrial Waste	Reverse Osmosis
Cadmium	0.005 mg/L	Primary	Kidney Damage	Pipes, Natural Deposits, Industrial Waste	Reverse Osmosis
Iron	0.3 mg/L	Secondary	Possible staining on plumbing fixtures and laundry	Naturally Occurring	Water Softener
Turbidity	10.0 NTU	Secondary	Interferes with filtration	Naturally Occurring	Contact a well driller
Hardness Scale	Less than 1	1 to 3.5	3.5 to 7	7 to 10.5	10.5 and over
	"Soft"	"Slightly Hard"	"Moderately Hard"	"Hard"	"Very Hard"

4/20



HOME LAND ENVIRONMENTAL HEALTH LABS

Healthy Homes Start Here

PH (443) 505-8375 FX (443) 267-0098
9106 Philadelphia Road
Suite 108B
Rosedale, MD 21237
lab@mdwellandseptic.com
www.mdwellandseptic.com

Chain Of Custody Form

Well Water Solutions, Inc

Client Name
5163 Darting Bird Lane, Columbia, MD 21044
Address
410-935-7185
Phone
jemoseman@wellwatersolutions.net &
Email jbieber@wellwatersolutions.net

Site Address:
Lot 9
12337 Point Ridge Drive
Fulton, MD 20759

Field Collection Information:

Collector's Name: Janet Walker *Walker* Sampler ID #: 9006JW

Collected Date and Time: 4/5/18 @ 12:00

Well Tag Number: HO-14-0001 Sand: Yes / No

Field PH: ~~7~~ 7 Field Chlorine: Present / Absent

Clear when Water Drawn: Yes / No Was Well Chlorinated? Yes / No

Requested Testing:

IMPURITY	SOURCE
<input checked="" type="checkbox"/> Bacteria	Bathroom sink
<input checked="" type="checkbox"/> Nitrates	Kitchen sink
<input checked="" type="checkbox"/> Turbidity	Kitchen sink
<input checked="" type="checkbox"/> Nitrites	Kitchen sink
<input type="checkbox"/> Lead	Kitchen sink
<input type="checkbox"/> Iron	
<input checked="" type="checkbox"/> Radium	Radium Long term 226/228
<input checked="" type="checkbox"/> Other	Radium Short term Gross Alpha

Well Casing/Cap Condition:

Height above grade: _____
Cap Type: _____
Casing: _____
Conduit: _____

Water Conditioning:

Water Softener

Plumbing Notes: First Test. The samples were collected

Post Treatment-Water Softener.

Release Signatures:

Released By: *Walker* Date/Time: 4/5/18 @ 1:15

Released By: _____ Date/Time: 4/6/18 11:03 AM

Received in Lab By: *Walker* Date/Time: 4/6/18 11:03 AM

T-0.85