EMERGENCY/TEMP NO. IF ANY

B 1 | 20796 (1 2 3 6) SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please type

5463206-5

STATE PERMIT NUMBER: HO - 14 - 0013 (70 79)

fill in this form completely

Date Received (APA): 04/04/14 (8 MM DD YY 13)

OWNER INFORMATION

MB Highland Reserve LLC (15 Last Name Owner First Name 34)

16866 E. Gude Dr (36 Street or RFD 55)

Rockville Md 20850 (57 Town 70 State 72 Zip 76)

DRILLER INFORMATION

Allen Compton MSD 009 (Driller's Name 76 License No. 81)

Fogle's Well Drilling LLC (Firm Name)

P.O. Box 202 Woodbine MD 21797 (Address)

Signature: Allen Compton Date: 4-10-14

B 2 (1 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)

- (D) DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, DEWATERING (22)
- [P] PUBLIC WATER SUPPLY WELL
- [T] TEST, OBSERVATION, MONITORING
- [O] OPEN LOOP GEOTHERMAL
- [C] CLOSED LOOP GEOTHERMAL

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

(30) AIR-ROTary | AIR-PERcussion | ROTARY (Hydraulic Rotary)

(37) CABLE | REVerse-ROTary | DRive-POINT

other

REPLACEMENT OR DEEPENED 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
- (39) [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) (41 52): _ _ - _ _ - _ _ _ _

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

APPROP. PERMIT NUMBER: HO 2014 G002

PERMIT No. HO - 14 - 0013 (70 71 72 73 74 75 76 77 78 79)

B 3 — LOCATION OF WELL

Howard (8 COUNTY 21)

Regan Property (23 SUBDIVISION 42)

SECTION (44 46) LOT 21 (48 50)

Highland (52 NEAREST TOWN 71)

B 4 — SOURCES OF DRILLING WATER

1.
2.
3.

Pleasant Springs Ct
~~Point Ridge Dr~~ (11 STREET ADDRESS 30)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (N) WEST (W) (32) EAST (E) SOUTH (S)

DISTANCE FROM ROAD (34 37): 450 FT (ENTER FT OR MI 38 39)

TAX MAP: ____ BLK: ____ PARCEL ____

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

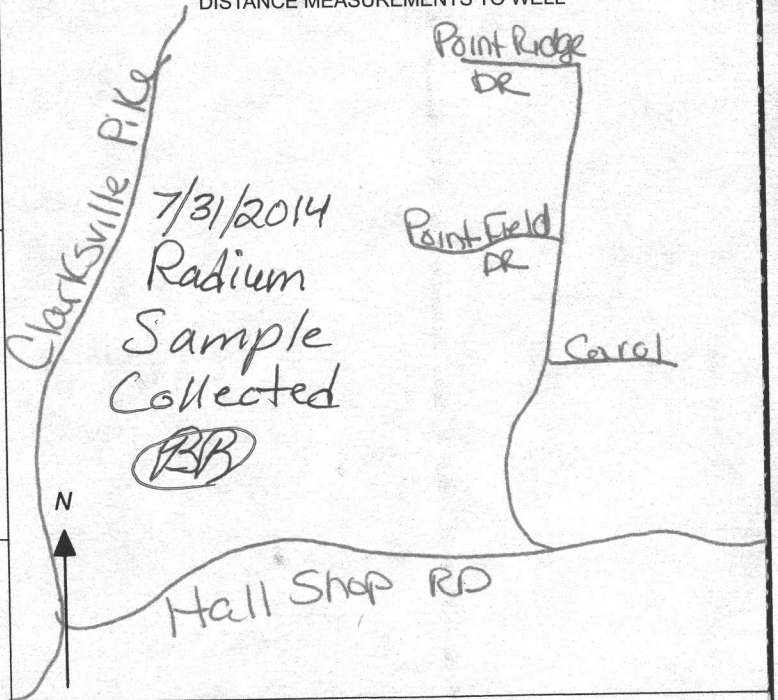
Howard A530307 13 (COUNTY NAME COUNTY NO.)

STATE SIGNATURE: _____ INSERT S → (41)

DATE ISSUED (43 MM DD YY 48): 05/27/2014 CO SIGNATURE: [signature] EXP. DATE: 5/27/15

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

MDE/WMA/PER.071

② COUNTY

C 1 | 16628 | SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

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 (15–20): 7/30/14

Depth of Well (22–26): 300 (TO NEAREST FOOT)

09/09/14 OK KW

PERMIT NO. FROM "PERMIT TO DRILL WELL" (28–37): 10 - 14 - 0013

OWNER (last name, first name): MB Highland Reserve

WELL SITE ADDRESS: Pleasant Springs RD TOWN: Highland

SUBDIVISION: Regan Property SECTION: LOT: 21

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 FROM	FEET TO	check if water bearing
Brown Shale	0	21	
Grey Limestone	21	87	
Brown	87	88	✓
Grey Limestone	88	169	
White	169	170	✓
Grey Limestone	170	300	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (yes / no): no

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.: M S D 009

Allen Compton
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: — — D — — —

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

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) (yes / no): yes (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT (CM) (45–46) BENTONITE CLAY (BC) (45–46)

NO. OF BAGS 15 NO. OF POUNDS 440

GALLONS OF WATER 90

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48–52 TOP) ft. to 28 (54–58 BOTTOM) 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 (60–61)	Nominal diameter top (main) casing (nearest inch)! (63–64)	Total depth of main casing (nearest foot) (66–70)
ST	06	30

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	depth (feet) to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL | BR BRASS BRONZE | PL PLASTIC | HO OPEN HOLE | OT OTHER

C 2

	DEPTH (nearest ft.)	
EACH SCREEN 1 (8–9 / 11–15 / 17–21)	HO	30 / 300
EACH SCREEN 2 (23–24 / 26–30 / 32–36)		
EACH SCREEN 3 (38–39 / 41–45 / 47–51)		

SLOT SIZE 1 ____ 2 ____ 3 ____

DIAMETER OF SCREEN ____ (56–60) (NEAREST INCH)

from	to

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING | LOG INDICATOR | OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) (8–9): 3

PUMPING RATE (gal. per min.) (11–15): 4.

METHOD USED TO MEASURE PUMPING RATE: 1gal

WATER LEVEL (distance from land surface)

BEFORE PUMPING (17–20): 16 ft.

WHEN PUMPING (22–25): 139 ft.

TYPE OF PUMP USED (for test) (27)
- 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 or NO): 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. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

(49) + above / – below LAND SURFACE

02 (nearest foot) (50–51)

LATITUDE 3 9. 181518 6

LONGITUDE 7 6. 9441605 (DEFAULT COORD. WGS 84)

NOTES:

Page ____ of ____ Review ____

Date 7-31-14

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 14-0013

Location of property (road) Pleasant Springs Ct

Subdivision Regen PRO. Lot 21 Block ____ Plat ____ Sec. ____

Well Driller Eagles Owner MB Highland Reserve

Depth of well 300'

Distance of measuring point (M.P.) above ground 2'

Static water level (S.W.L.) below M.P. 16

I. High rate pumping -- reservoir drawdown

Time pump started 8:30 Pumping rate 10

Total time 30MIN to reach pumping water level 137 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 6 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
8:30	16	6		10
8:45	93	6		10
9:00	137	7		8.5
9:15	137	15		4
9:30	137	15		4
9:45	137	15		4
10:00	136	15		4
10:15	136	15		4
10:30	136	15		4
10:45	136	15		4
11:00	135	15		4
11:15	135	15		4
11:30	135	15		4
11:45	135	15		4
12:00	135	15		4
12:15	135	15		4

HD-224

HOWARD COUNTY HEALTH DEPARTMENT

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

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 - 0013
Site Address: _____
_____

(+) 02/26/2020

Submersible Pump Data
Make: _____
Model #: _____
Pump Capacity _____
Well Yield: _____

Pitless Adapter
Make: _____+
Model#:_____
GPM Depth:_____(36" min)
GPM NSF/WSC 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
Must circle one: Torque arrestors / Cable guards / Other acceptable method used
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing _____

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

House Connection
PVC sleeve to undisturbed soil at wall penetration:_____
Length of sleeve(5' minimum from foundation):_____
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: 02/26/2020 Date Insp. Approved: 02/26/2020 Inspector: (+)

Inspection Data:

Pitless adapter watertight & water supply line at least 36" below grade	38" 02/26/2020 (+)
Two piece cap installed and attached to casing securely	✓
Elec. conduit extends at least 18" below grade/attached to cap properly	35" 02/26/2020 (+)
Safety rope not outside of well cap/casing	✓
Correct well tag attached properly and casing 8" above finished grade	23" 02/26/2020 (+)
Water supply line sleeved adequately at house connection	✓
Adequate grout observed below pitless adapter	✓

House

3'

(Revised form 10/24/2018)

HOWARD COUNTY HEALTH DEPARTMENT

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – OCTOBER 30, 2020

April 30, 2020

Homeowner
12244 Pleasant Springs Court
Fulton, MD 20759

RE: Highland Crossing, Lot 21
12244 Pleasant Springs Court
Building Permit: B19003392
Well Permit: HO-14-0013

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 **2/26/2020.** Final approval of the well line connection to the dwelling was granted on **2/26/2020.** The well construction was completed on **7/31/2014.** Water samples were collected on **4/20/2020.**

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 **7/31/2014**. Results showed a Gross Alpha level of **5.2** ± 1.7 **pCi/L** and **Gross Beta** level of **6.7 ± 2.0 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). At the time of testing and with respect to these parameters, the well water is safe for all uses.

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-14-0013. 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.**

HOWARD COUNTY
HEALTH DEPARTMENT

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 final water sample appointment or contact a 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" for understanding your onsite sewage disposal system. You will also find a link to Maryland Department of the Environments website which elaborates in further detail operation and maintenance of your Septic System.

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

Howard County
Health Department

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

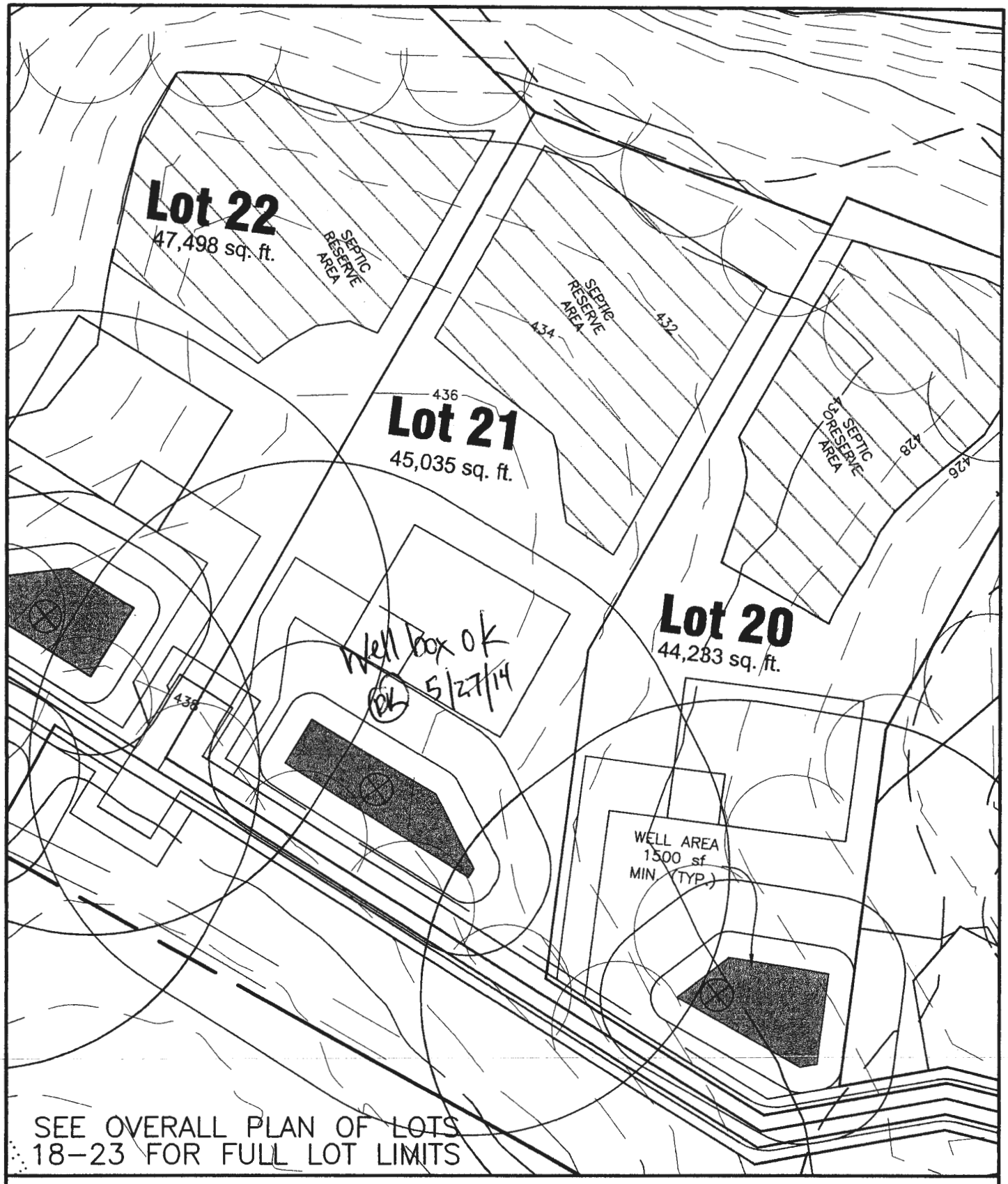
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- ☐ 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



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 21
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' DATE: 3/11/2014

HOME LAND
LABS

9106 Philadelphia Road, Suite 106
Rosedale, MD 21237
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 353

108 Old Solomons Island Road, Suite I2
Annapolis, MD 21401
Phone 410.224.4304
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 106

3430 Rockefeller Court
Waldorf, MD 20602
Phone 240.448.5600
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 139

Certificate of Analysis

Report Date: 4/22/2020

Client: Well Water Solutions, Inc.
Property Address: 12244 Pleasant Springs Court
Fulton, MD 20759

Report No: 185046
Sample Time: 04/20/20 11:45
Date & Time Received: 04/21/20 10:40
Sampled By: Janet Walker 9006JW (Exp. 9/5/2021)
Preservation: Ice
Sample Point(s): Kitchen sink, Bacteria-First floor bathroom sink
Water Conditioning Appears to be: None

Chlorine Residual: 0.0
Field pH: 5.4
Well Type: Drilled
Well Height: 18"
Cap Type: 2-piece
Casing: Steel
Conduit: PVC
Clarity: Clear
Sand: None Observed
Well Tag Number: HO-14-0013

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	KMB-353	04/22/2020
Bacteria-E.coli	Colitag Test	Absent	Pass	Per/100ml	Present	1	KMB-353	04/22/2020
Nitrate + Nitrite as N	EPA 353.2	Not Detected	Pass	mg/l	10	0.5	MAK-353	04/21/2020

Secondary Contaminants

Parameter	Method	Result	Acceptable /High	Units	SMCL	RL	Analyst	Date of Analysis
Turbidity	EPA 180.1	2.8	Acceptable	NTU	10	0.5	MAK-353	04/21/2020

HR-21
B-19003392

Approved By Kevin Barnaba Kevin Barnaba, Lab Director

HOME LAND
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/201606/documents/npwdr_complete_table.pdf

Definitions and Acronyms

Analyst: 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.

*Parameter analyzed by **MSS:** Maryland Spectral Services, **FRC:** Florida Radiochemistry, **ECL:** Enviro-Chem Laboratories

This table is for informational purposes only. See page 1 for your 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
E. coli	Present	Primary	Stomach illness	Human and Animal Fecal Waste	Well Repair and Chlorination, UV light
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	Corrosion of household plumbing systems; Erosion of natural deposits	Acid Neutralizer, Chemical Feeder (soda ash), 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
Copper	1.3 mg/L	Primary	Gastrointestinal distress, Liver or Kidney Damage	Corrosion of household plumbing systems; Erosion of natural deposits	Acid Neutralizer, Reverse Osmosis, Pipe Replacement
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	Sediment Filter
pH	6.5-8.5 (Neutral range)	Secondary	Low pH: Bitter metallic taste, CorrosionHigh pH: Slippery feel; Soda taste; Deposits	Naturally Occurring	Acid Neutralizer

Chain of Custody Form

185046 Date Due: 4/23/20
Client: Well Water Solutions, Inc.
Project:

LABS

9106 Philadelphia Road, Suite 106
Rosedale, MD 21237
(443) 505-8375
MD Lab # 353

108 Old Solomons Island Road, Suite L2
Annapolis, MD 21401
(410) 224-4304
MD Lab # 106

3430 Rockefeller Court
Waldorf, MD 20602
(410) 224-4304
MD Lab # 139

Client Name:
Well Water Solutions, Inc.

Email Address:
jemoseman@wellwatersolutions.net & jbieber@wellwatersolutions.net

Phone Number:
410-935-7185 or 301-874-3137

Property Address:
HR-21
12244
Pleasant Springs Ct.
Fulton, MD 20759

Field Collection Information

Sampler Name:	Janet Walker	Field pH:	5.4
Sampler ID #:	9006JW Exp 09/05/21	Field Chlorine (mg/L):	Present / Absent
Date and Time Sampled:	4/20/2020 @ 11:45	Sand:	Present / Absent
Well Tag Number:	HO-14-0013	Clarity:	Clear / Un-Clear

Well Casing and Cap Condition BP# B-1900392

Height Above Grade:	Cap Type: 1 piece / 2 piece / ____	Casing: Steel / PVC / ____	Conduit: PVC / ____
18"			

Sample Point:
✓ Bateria collected Raw (No Water Treatment) form First floor bathroom sink. All other samples collected RAW (No Water Treatment) from the kitchen sink.

Water Conditioning:
✓ None / All Samples collected Raw from a tab with No Water Treatement

Requested Testing: *(Please check all that apply)*

- ☑ Potability (Bacteria, Nitrates, pH, Turbidity)
- ☐ FHA/VA (Bacteria, Nitrates, Nitrites, pH, Turbidity, Lead and Iron)

☐ Bacteria	☐ Arsenic	☐ Other: Radium Short Term Gross Alpha & Gross Beta
☐ Lead	☐ Cadmium	☐ Other: Radium Long Term 226 & 228
☐ Nitrates	☐ Fluoride	☐ Other: ____
☐ Iron	☐ Pesticides	☐ Other: ____
☐ Gross Alpha	☐ VOC	☐ Other: ____
☐ Saltwater Intrusion	☐ Hardness	☐ Other: ____

List rush samples below
Refer to table for rush turnaround times and fees

Release Signatures

Released By: Janet Walker — Date/Time: 4/20/2020 @ 12:40

Released By: ____ — Date/Time: 4/21/20 10:40am

Released By: ____ — Date/Time: ____

Received in lab by: ____ — Date/Time: 4/21/20 10:40am

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. [illegible] 3-4

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property – Lot 21 County: Howard

Sample Source: Pleasant Springs Ct. Location: HO-14-0013
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A 14-0013 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	☒	Community	☐	Source (Raw)	☒	Emergency	☐
Landfill	☐	Non-Community	☐	Distribution (treated)	☐	Routine	☒
Stream	☐	Private	☒	MCL	☐	Recheck	☐
Other ____	☐	Other ____	☐			Special	☐

Submitters Code: Federal Project:

Collector: Brian Telephone No.: (410) 313-2643

Date Collected: 7/31/2014 Time Collected: 11:00 a.m. ____ 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
☒	Gross Alpha	4000	305	EPA 900.0	5.2 ± 1.7	8/5/14	MS	8/6/14
☒	Gross Beta	4100	305	"	6.7 ± 2.0	"	"	"
☐	Radium-226	4020						
☐	Radium-228	4030						
☐	Total Uranium	4006						
☐	Radon-222 (Bottle A)	4004						
☐	Radon-222 (Bottle B)	4004						
☐	Radon Field Blank A	4004						
☐	Radon Field Blank B	4004						
☐	Tritium							
☐								

Date Received: 8/4/14 Received By: Melody Smith

Data Release Signature: Deborah Miller-Smith Date: 8/8/14

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

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DHMH 4540 01/13

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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.

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: _____ County: Howard

Sample Source: Radium Blank Location: _____

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

Radon-222 Bottle A _____ Radon-222 Field Blank Bottle A Radium Blank

Bottle B _____ Bottle B _____

County ☐☐ Plant No. ☐☐☐☐☐☐☐☐☐

CHECK (one per Box)

Type		Service		Point of Collection		Testing	
Drinking Water	☐	Community	☐	Source (Raw)	☐	Emergency	☐
Landfill	☐	Non-Community	☐	Distribution (treated)	☐	Routine	☐
Stream	☐	Private	☐	MCL	☐	Recheck	☐
Other _____	☐	Other _____	☐			Special	☐

Submitters Code: ☐☐ Federal Project: ☐

Collector: B. Baker Telephone No.: _____

Date Collected: 7/31/2014 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
☒	Gross Alpha	4000	303	EPA 900.0	<2.0	8/5/14	MS	8/6/14
☒	Gross Beta	4100	303	"	<4.0	"	"	"
☐	Radium-226	4020						
☐	Radium-228	4030						
☐	Total Uranium	4006						
☐	Radon-222 (Bottle A)	4004						
☐	Radon-222 (Bottle B)	4004						
☐	Radon Field Blank A	4004						
☐	Radon Field Blank B	4004						
☐	Tritium							
☐								

Date Received: 8/4/14 Received By: Melody Scott

Data Release Signature: Deborah M. Dwyer Date: 8/8/14

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

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DHMH 4540 01/13

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Invoice

Howard County Health Department

Bureau of Environmental Health
Attn: Bert Nixon, Director

DATE: AUGUST 18, 2014
DATES OF SERVICE: JULY 29, 31,& AUG 1, 2014
INVOICE #: 2014-017

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
07/29/14	Gross alpha/beta testing performed for Reagan Property, Lot 19 HO - 14 - 0011		$45.00
07/31/14	Gross alpha/beta testing performed for Reagan Property, Lots 20 and 21 HO - 14 - 0012 HO - 14 - 0013		$90.00
08/01/14	Gross alpha/beta testing performed for Reagan Property, Lot 22 HO - 14 - 0014		$45.00
			AMOUNT DUE
			$180.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2014-017
Site Information	Reagan Property Lots 19,20,21and 22
Amount Due	$180.00

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

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.

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: _____ County: Howard

Sample Source: Radium Blank Location: _____

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

Radon-222 Bottle A _____ Radon-222 Field Blank Bottle A Radium Blank

Bottle B _____ Bottle B _____

County ☐☐ Plant No. ☐☐☐☐☐☐☐☐☐

CHECK (one per Box)

Type		Service		Point of Collection		Testing	
Drinking Water	☐	Community	☐	Source (Raw)	☐	Emergency	☐
Landfill	☐	Non-Community	☐	Distribution (treated)	☐	Routine	☐
Stream	☐	Private	☐	MCL	☐	Recheck	☐
Other _____	☐	Other _____	☐			Special	☐

Submitters Code: ☐☐ Federal Project: ☐

Collector: B. Baker Telephone No.: _____

Date Collected: 7/31/2014 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
☒	Gross Alpha	4000	303	EPA 900.0	<2.0	8/5/14	MS	8/6/14
☒	Gross Beta	4100	303	"	<4.0	"	"	"
☐	Radium-226	4020						
☐	Radium-228	4030						
☐	Total Uranium	4006						
☐	Radon-222 (Bottle A)	4004						
☐	Radon-222 (Bottle B)	4004						
☐	Radon Field Blank A	4004						
☐	Radon Field Blank B	4004						
☐	Tritium							
☐								

Date Received: 8/4/14 Received By: Melody Scott

Data Release Signature: _____ Date: 8/8/14

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

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DHMH 4540 01/13

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Howard County Health Department

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

October 9, 2014

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

RE: Regan Property Lot 21
Pleasant Springs Court
Well Tag: HO - 14 – 0013

To Whom it May Concern:

A sample was collected during a yield test on July 31, 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 **5.2 ± 1.7 picocuries/liter (pCi/L)**, while the **Gross Beta** level was **6.7 ± 2.0 pCi/L.** The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of **15 pCi/L,** while the **Gross Beta** level was below its targeted value of **50 pCi/L** (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 **is within** EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. **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

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. E 0305 14-4

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property – Lot 21 Pleasant Springs Ct.
County: Howard
Sample Source:
Location: H0-14-0013 (Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A 14-0013
Bottle B
Radon-222 Field Blank Bottle A Radium Blank
Bottle B

County 13
Plant No.

CHECK (one per Box)

Type		Service		Point of Collection		Testing	
Drinking Water	X	Community	☐	Source (Raw)	X	Emergency	☐
Landfill	☐	Non-Community	☐	Distribution (treated)	☐	Routine	X
Stream	☐	Private	X	MCL	☐	Recheck	☐
Other	☐	Other	☐			Special	☐

Submitters Code:
Federal Project:
Collector: Brian
Telephone No.: (410) 313-2643
Date Collected: 7/31/2014
Time Collected: 11:00 a.m. p.m.
Field pH:
Field Chlorine:
Nitric Acid Preserved: Yes X No
Iced: Yes No X
Remarks: Sample Collected During Yield Test

☑	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
X	Gross Alpha	4000	305	EPA 900.0	5.2 ± 1.7	8/5/14	MS	8/6/14
X	Gross Beta	4100	305	"	6.7 ± 2.0	"	"	"
☐	Radium-226	4020						
☐	Radium-228	4030						
☐	Total Uranium	4006						
☐	Radon-222 (Bottle A)	4004						
☐	Radon-222 (Bottle B)	4004						
☐	Radon Field Blank A	4004						
☐	Radon Field Blank B	4004						
☐	Tritium							
☐								

Date Received: 8/4/14
Received By: Melody Scott
Data Release Signature: Deborah Miller-Jones
Date: 8/8/14

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

FORM REVISED 01/13
DHMH 4540 01/13

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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. E0303 14

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: _____ County: Howard

Sample Source: Radium Blank Location: _____

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

Radon-222 Bottle A _____ Radon-222 Field Blank Bottle A Radium Blank
Bottle B _____ Bottle B _____

County ☐☐ Plant No. ☐☐☐☐☐☐☐☐☐☐

CHECK (one per Box)

Type		Service		Point of Collection		Testing	
Drinking Water	☐	Community	☐	Source (Raw)	☐	Emergency	☐
Landfill	☐	Non-Community	☐	Distribution (treated)	☐	Routine	☐
Stream	☐	Private	☐	MCL	☐	Recheck	☐
Other _____	☐	Other _____	☐			Special	☐

Submitters Code: ☐☐ Federal Project: ☐

Collector: B. Baker Telephone No.: _____

Date Collected: 7/31/2014 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
☒	Gross Alpha	4000	303	EPA 900.0	<2.0	8/5/14	MS	8/6/14
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☐	Radium-226	4020						
☐	Radium-228	4030						
☐	Total Uranium	4006						
☐	Radon-222 (Bottle A)	4004						
☐	Radon-222 (Bottle B)	4004						
☐	Radon Field Blank A	4004						
☐	Radon Field Blank B	4004						
☐	Tritium							
☐								

Date Received: 8/4/14 Received By: Melody Scott

Data Release Signature: Deborah Miller-Jones Date: 8/8/14

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

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DHMH 4540 01/13

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Invoice

Howard County Health Department

Bureau of Environmental Health
Attn: Bert Nixon, Director

DATE: AUGUST 18, 2014
DATES OF SERVICE: JULY 29, 31,& AUG 1, 2014
INVOICE #: 2014-017

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08/01/14	Gross alpha/beta testing performed for Reagan Property, Lot 22 HO - 14 - 0014		$45.00
		AMOUNT DUE	
			$180.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2014-017
Site Information	Reagan Property Lots 19,20,21and 22
Amount Due	$180.00

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