C 1 | 0828 | SEQUENCE NO. (MDE USE ONLY)

1 2 3 4 5 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 08 DD 13 YY 14 (8–13)

DATE WELL COMPLETED MM 2 DD 15 YY 14 (15–20)

Depth of Well 22 250 26 (TO NEAREST FOOT)

9/8/14 OK (KW)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-2696 (28–37)

OWNER MB Highland Reserve (last name / first name)

STREET OR RFD Point Ridge DR TOWN Highland

SUBDIVISION Regan Property SECTION LOT 4

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	63	
Gray Limestone	63	220	
White & Gray	220	250	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes Y / no (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.: MD 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 Y / no N (44)

TYPE OF GROUTING MATERIAL (Circle one)

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

NO. OF BAGS 28 NO. OF POUNDS 2632

GALLONS OF WATER 168

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (46–52 TOP) ft. to 72 (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	74

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
(screen type or open hole insert appropriate code below)

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

C 2 (1–2)

DEPTH (nearest ft.)

EACH SCREEN		from (8–14)	to (15–21)
	1	HO	74 / 250
	2		
	3		

SLOT SIZE 1 ___ 2 ___ 3 ___

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

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

from ___ to ___

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 (1–2)

PUMPING TEST
HOURS PUMPED (nearest hour) 3

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

METHOD USED TO MEASURE PUMPING RATE 1 gal

WATER LEVEL (distance from land surface)

BEFORE PUMPING 20 (17–20) ft.

WHEN PUMPING 62 (22–25) 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) 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. ___ (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)

(+) above / (–) below LAND SURFACE (49)

02 (nearest foot) (50–51)

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

N

39.188598

76.940856

C 1 | 0828 — SEQUENCE NO. (MDE USE ONLY)

(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 08 DD 1 YY 14

DATE WELL COMPLETED MM 2 DD 15 YY 14

Depth of Well 250 (TO NEAREST FOOT)

9/8/14 OK (KW)

PERMIT NO. FROM "PERMIT TO DRILL WELL" Ho-95-2696

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

STREET OR RFD Point Ridge DR TOWN Highland

SUBDIVISION Regan Property SECTION LOT 4

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	63	
Gray Limestone	63	220	
White & Gray	220	250	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [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.

DRILLER'S LIC. NO.: M 5 D 009

Allen Gantz
DRILLER'S 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 [Y] no [N]

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 28 NO. OF POUNDS 362

GALLONS OF WATER 160

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (TOP) to 72 ft. (BOTTOM)

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
ST	06	74

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	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		from	to
1		40	74
2		220	250
3			

SLOT SIZE 1 ____ 2 ____ 3 ____

DIAMETER OF SCREEN ____ (NEAREST INCH)

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

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

T (E.R.O.S.) W Q

70 TELESCOPE CASING 72 LOG INDICATOR 74 75 76 OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 4.

METHOD USED TO MEASURE PUMPING RATE 1 gal

WATER LEVEL (distance from land surface)

BEFORE PUMPING 20 ft.

WHEN PUMPING 62 ft.

TYPE OF PUMP USED (for test)

[A] air [P] piston [T] turbine [C] centrifugal [R] rotary [O] other (describe below) [J] jet [S] submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) 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)

[+] above LAND SURFACE [−] below

02 (nearest foot)

LOCATION OF WELL ON LOT

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

N

39.16855
76.94085

DENV-CR00 SURVEY

C 1 | 0828 | SEQUENCE NO. (MDE USE ONLY)

(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 08 DD 13 YY 14

DATE WELL COMPLETED MM 2 DD 15 YY 14

Depth of Well 250 (TO NEAREST FOOT)

9/8/14 014 (KW)

PERMIT NO. FROM "PERMIT TO DRILL WELL" Ho-95-2696

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

STREET OR RFD Point Ridge Dr TOWN Highland

SUBDIVISION Regan Property SECTION LOT 4

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	63	
Gray Limestone	63	220	
White & Gray	220	250	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [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.: M 3 D 009

Allen Conyto
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 [Y] no [N]

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 28 NO. OF POUNDS 2632

GALLONS OF WATER 168

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (TOP) to 72 ft. (BOTTOM)

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
ST	06	74

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole insert appropriate code below

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

DEPTH (nearest ft.)

EACH SCREEN		from	to
1	AU	74	250
2			
3			

SLOT SIZE 1 ____ 2 ____ 3 ____

DIAMETER OF SCREEN ____ (NEAREST INCH)

from	to

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

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

T (E.R.O.S.) W Q

TELESCOPE CASING | LOG INDICATOR | OTHER DATA

PUMPING TEST
HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 4.

METHOD USED TO MEASURE PUMPING RATE 1gal

WATER LEVEL (distance from land surface)

BEFORE PUMPING 20 ft.

WHEN PUMPING 62 ft.

TYPE OF PUMP USED (for test)

[A] air [P] piston [T] turbine [C] centrifugal [R] rotary [O] other (describe below) [J] jet [S] submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) 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)

[+] above [−] below LAND SURFACE

02 (nearest foot)

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

N

39.188596

76.940869

DENV-CR00

COUNTY

EMERGENCY/TEMP NO. IF ANY

B 1 | 20715 | SEQUENCE NO. (MDE USE ONLY) | STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 546306-B | STATE PERMIT NUMBER HO-95-2696 fill in this form completely

Date Received (APA) 04/01/14

OWNER INFORMATION

MB Highland Reserve LLC
Last Name / Owner / First Name

16616 E Gude Dr
Street or RFD

Rockville MD 20850
Town / State / Zip

DRILLER INFORMATION

Allen Compton MSD 009
Driller's Name / License No.

Eagles Well Drilling LLC
Firm Name

PO Box 202 Woodbine, MD 21797
Address

Allen Compton 4-10-14
Signature / Date

B 2 **WELL INFORMATION**

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

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

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) | JETTED | Jetted & DRIVEN
(AIR-ROTary) | AIR-PERcussion | ROTARY (Hydraulic Rotary)
CABLE | REVerse-ROTary | DRive-POINT
other

REPLACEMENT OR 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
- 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) ___ - ___ - ___

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

APPROP. PERMIT NUMBER H02014G002

PERMIT No. HO-95-2696

B 3 **LOCATION OF WELL**

Howard
COUNTY

Regan Property
SUBDIVISION

SECTION LOT 4

Highland
NEAREST TOWN

B 4

SOURCES OF DRILLING WATER
1.
2.
3.

Point Ridge Dr
STREET ADDRESS

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

DISTANCE FROM ROAD 300 FT
ENTER FT OR MI

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

DATE ISSUED 05/27/2014 HD SIGNATURE 5/27/15 EXP. DATE

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 at the yield test

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

MDE/WMA/PER.071

② COUNTY

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

EMERGENCY/TEMP NO. IF ANY

B 1 20715 — SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please type

5463867B

STATE PERMIT NUMBER: HO -95 -2696

fill in this form completely

Date Received (APA): 04/01/14

OWNER INFORMATION

MB Highland Reserve LLC (Last Name / First Name)

16816 E Gude Dr (Street or RFD)

Rockville MD 20850 (Town / State / Zip)

DRILLER INFORMATION

Allen Compton — License No. MSD009

Eagles Well Drilling LLC (Firm Name)

PO Box 202 Woodbine, MD 21797 (Address)

Allen Compton — 4-10-14 (Signature / Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

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

APPROXIMATE DEPTH OF WELL: 300 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

(AIR-ROTary) — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR 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
- [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)

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

APPROP. PERMIT NUMBER: HO 2014 G 002

PERMIT No. HO -95 -2696

B 3 LOCATION OF WELL

COUNTY: Howard

SUBDIVISION: Regan Property

SECTION: — LOT: 4

NEAREST TOWN: Highland

B 4

SOURCES OF DRILLING WATER
1.
2.
3.

Point Ridge DR (STREET ADDRESS)

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

DISTANCE FROM ROAD: 300 FT (ENTER FT OR MI)

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

DATE ISSUED: 05/27/2014 — CO 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: Radium Sample required at the yield test

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Page 1 of 1
Date 7-15-14

Review _____

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 95-2696
Location of property (road) POINT Ridge Dr.
Subdivision Regan PLO Lot 4 Block _____ Plat _____ Sec. _____
Well Driller Fuges Owner MB Highland Reserve

Depth of well 250'
Distance of measuring point (M.P.) above ground 2'
Static water level (S.W.L.) below M.P. 20'

I. *High rate pumping -- reservoir drawdown*

Time pump started 8:00 Pumping rate 12
Total time _____ to reach pumping water level _____ 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 ½ gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
8:00	20	6		10
8:15	62	6		10
8:30	62	15		4
8:45	62	15		4
9:00	62	15		4
9:15	62	15		4
9:30	62	15		4
9:45	62	15		4
10:00	62	15		4
10:15	62	15		4
10:30	62	15		4
10:45	62	15		4
11:00	62	15		4
11:15	62	15		4
11:30	42	15		4

HD-224

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 138
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: HIGHLAND RESERVE Lot #: 4 Well Tag # : HO - 95 - 2696 ✓09/06/2019 Ⓡ
Site Address: 12344 POINT RIDGE DR
FULTON

Submersible Pump Data	Pitless Adapter	Well Cap and Electric Conduit
Make: FRANKLIN	Make: Campbell	Two piece watertight cap: ✓
Model #: 3/4 HP	Model#: PA800	Screened, vented well cap: ✓
Pump Capacity 10 GPM	Depth: 48" (36" min)	Cap secured to casing: ✓
Well Yield: 4 GPM	NSF approved: YES	Conduit min 18" B.G.: ✓
		Conduit secured to well cap: ✓

Depth of well encountered at time of pump installation: 250 (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
Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house	House Connection
Type: POLY	PVC sleeved to undisturbed soil at wall penetration: YES
PSI: 200 (160 psi min)	Approximate length of sleeve: 5'
Depth of supply line: 4' (36" min)	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 — 9-3-19 date

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

Date Insp. Requested: 09/06/2019 Date Insp. Approved: 09/06/2019

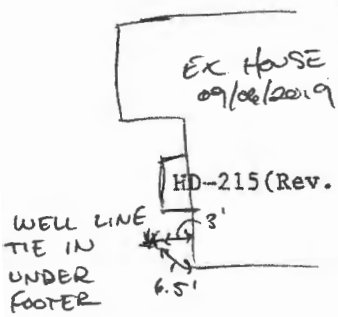
Inspection Data:

Pitless adapter and water supply line at least 36" below grade	✓	36" 09/06/2019 Ⓡ
Two piece cap installed and attached to casing securely	✓	
Elec. conduit extends at least 18" below grade/attached to cap properly	✓	36" 09/06/2019 Ⓡ
Safety rope installed inside of well casing	✓	
Correct well tag attached properly and casing 8" above finished grade	✓	21" 09/06/2019 Ⓡ
Water supply line sleeved adequately at house connection	✓*	
Adequate grout observed below pitless adapter	✓*	

09/06/2019 Ⓡ

* WATER LINE UNDER HOUSE FOOTER GROUT CAP OBSERVED W/ EMPTY ANNULAR AROUND PITLESS. PROBED AROUND CASE. APPEARS TO BE PORTLAND CEMENT 1' BELOW PITLESS

HD-215(Rev. 8/00)



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 – MAY 14, 2020

November 14, 2019

Homeowner
12344 Point Ridge Drive
Highland, MD 20777

RE: Highland Reserve, Lot 4
12344 Point Ridge Drive
Building Permit: B19001462
Well Permit: HO-95-2696

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 **9/9/2019.** Final approval of the well line connection to the dwelling was granted on **9/6/2019.** The well construction was completed on **7/15/2014.** Water samples were collected on **11/4/2019.**

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 **7/15/2014**. Results showed a Gross Alpha level of **3.1** ± 1.2 **pCi/L** and **Gross Beta** level of **5.1 ± 1.9 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-95-2696. 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

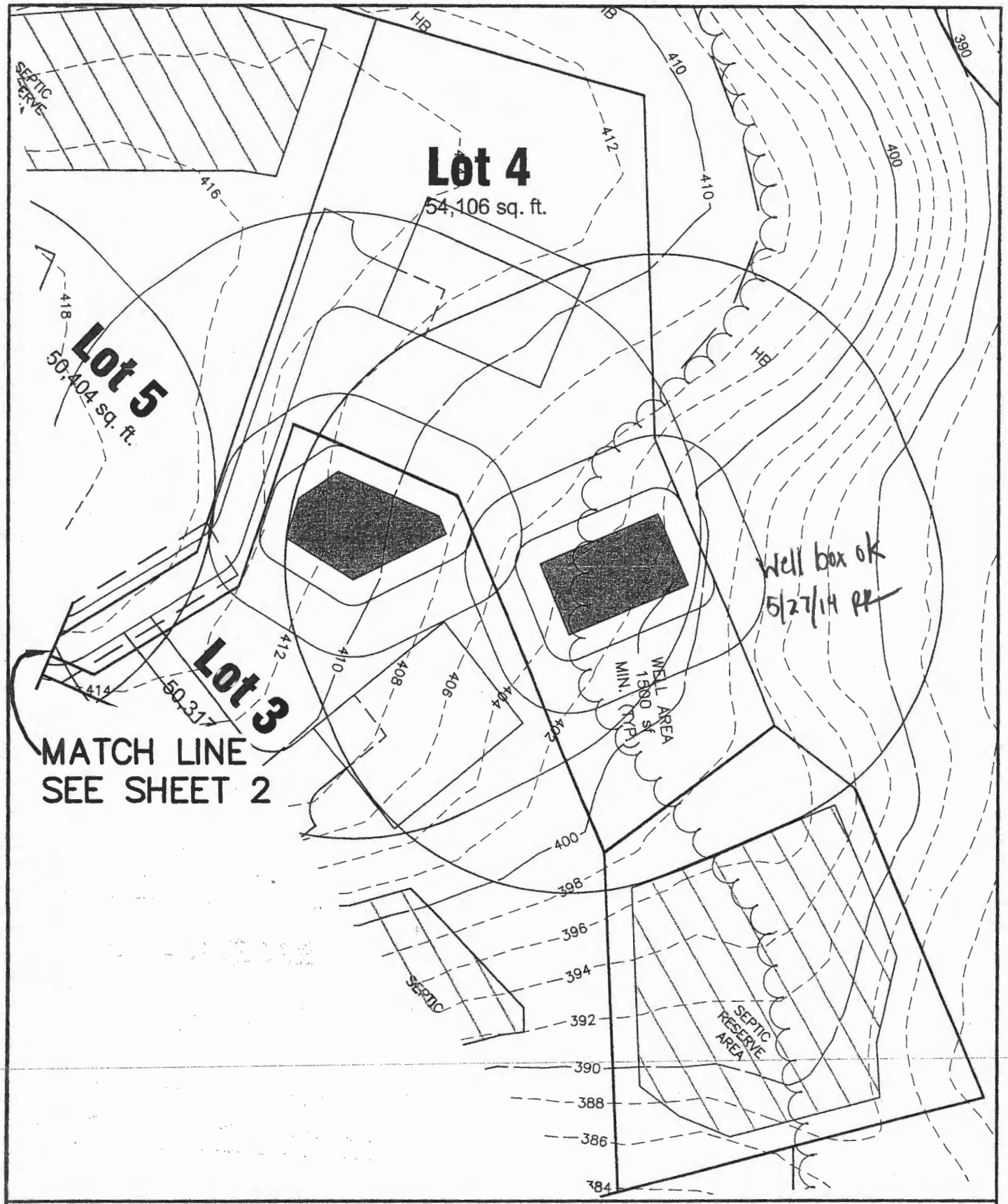
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- ☐ 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.

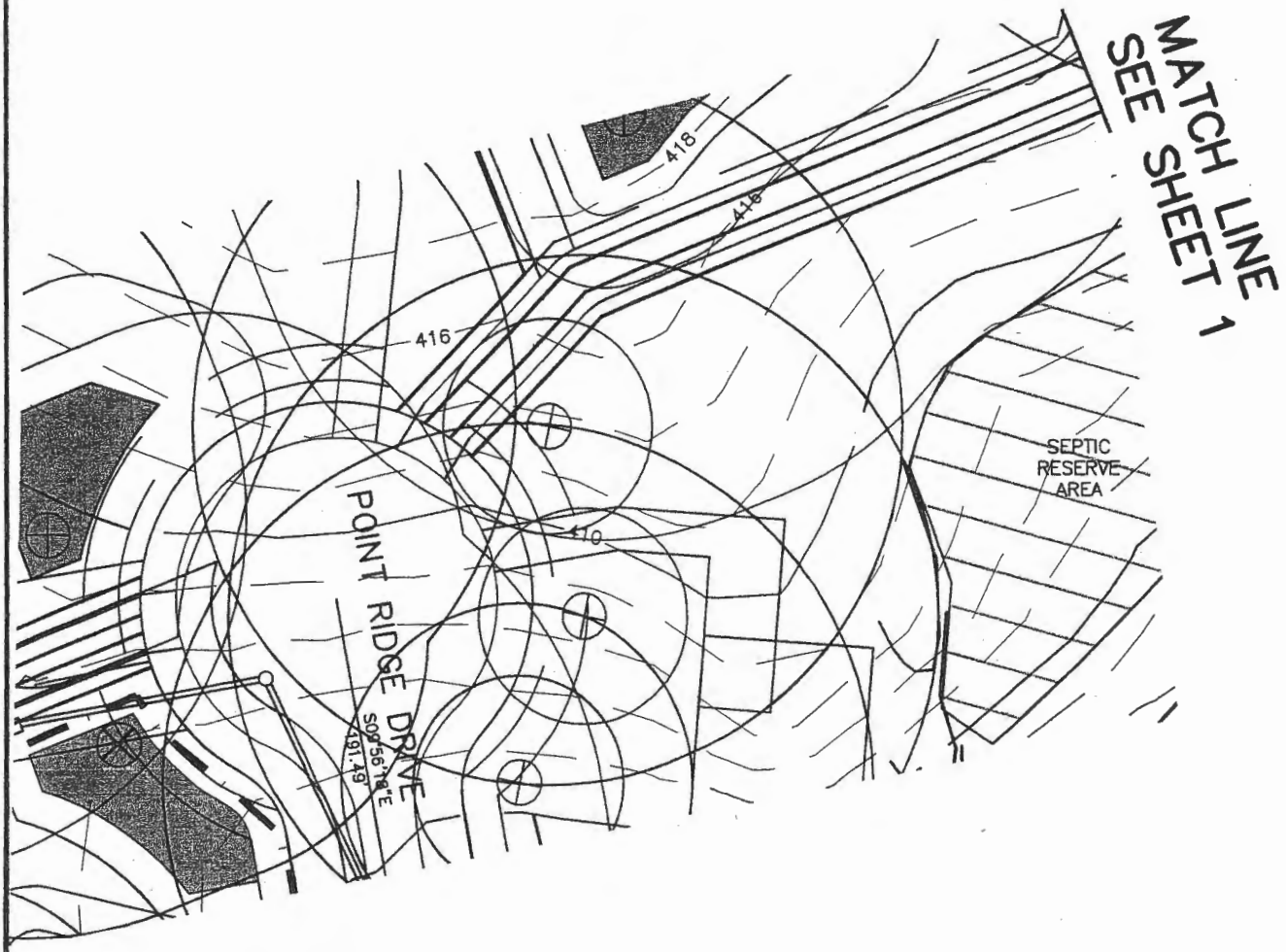
Revised 6/10/03



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 4 SHEET 1 OF 2
FIFTH ELECTION DISTRICT HOWARD
COUNTY, MARYLAND SCALE: 1" = 50'
DATE: 3/11/2014



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 4 SHEET 2 OF 2
FIFTH ELECTION DISTRICT HOWARD
COUNTY, MARYLAND SCALE: 1" = 50'
DATE: 3/11/2014

HOME LAND
LABS

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

Certificate of Analysis

Report Date: 11/7/2019

Client: Well Water Solutions, Inc.
Property Address: 12344 Point Ridge Drive Lot 4
Fulton, MD 20759
Report No: 178544
Date & Time Sampled: 11/04/2019 9:30 am
Date & Time Received: 11/05/2019 11:05 am
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
Building Permit # B19001462

Chlorine Residual: 0.0
Field pH: 5.5
Well Type: Drilled
Well Height: 24"
Cap Type: 1-piece
Casing: Steel
Conduit: PVC
Clarity: Clear
Sand: None Observed
Well Tag Number: HO-95-2696

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	MAK-353	11/06/2019
Bacteria-E.coli	Colitag Test	Absent	Pass	Per/100ml	Present	1	MAK-353	11/06/2019
Nitrate + Nitrite as N	EPA 353.2	0.8	Pass	mg/l	10	0.5	MAK-353	11/05/2019

Secondary Contaminants

Parameter	Method	Result	Acceptable /High	Units	SMCL	RL	Analyst	Date of Analysis
Turbidity	EPA 180.1	12.4	High	NTU	10	0.5	AND-353	11/05/2019

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 **ETL:** Environmental Testing Lab-Waldorf, **FRC:** Florida Radiochemistry, **CSL:** Chemical Solutions, Ltd.

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, Corrosion High pH: Slippery feel; Soda taste; Deposits	Naturally Occurring	Acid Neutralizer

HOME LAND ENVIRONMENTAL HEALTH LABS

443-505-8375
9106 Philadelp
Rosedale MD 2
www.homelar
lab@homelandh

178544 Date Due: 11/7/20
Client: Well Water Solutions, Inc.
Project:

Chain Of Custody Form

Client Name **Well Water Solutions, Inc.**

Address 5163 Darting Bird Lane, Columbia, MD 21044

Phone 410-935-7185 &/or 301-674-3137

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

Site Address: Lot 4
12344 Point Ridge Drive
Fulton, MD 20759

Field Collection Information

Collector's Name:	Janet Walker
Sampler's ID #:	9006JW Exp: 3/5/21
Collected Date and	11/4/2019 @ 9:30
Well Tag Number:	HO-95-2696

Field pH:	5.5
Field Chlorine:	Present / Absent
Sand:	Yes / No
Clear At Time of Sample?	Yes / No
Was Well Chlorinated?	Yes / No / Unknown

Well Casing and Cap Condition

Bldg Permit # B19001402

Height Above Grade:	Cap Type:	Casing:	Conduit:
24"	P	Steel	PVC

Requested Testing: *(Please Circle All That Apply)*

FHA/VA (Potability +Nitrites, Lead and Iron)

Potability (Bacteria, Nitrates, pH, Turbidity) ✓

Arsenic	Bacteria	Cadmium	Chlorides	Gross Alpha	Iron
Lead	MTBE	Nitrates	Nitrites	Pesticides	Radium 226/228
Total Hardness	VOC's	*Other:*	*Other:*	*Other:*	*Other:*

Source:
✓ Bacteria Sample Collected RAW No Treatment from first floor Bathroom Sink. All Other Samples collected RAW No Treatment from the Kitchen Sink.

Water Conditioning:
✓ None / All Samples collected RAW from a tap

NOTE: The Property does not have Water Treatment. All Samples collected from a tap with No Water Treatment "RAW".

* Please return COC with the Lab Results

Release Signatures

Released By: Janet Walker — Date/Time: 11/4/19 5:00

Released By: — Date/Time: 11/5 11:08 AM

Released By: — Date/Time:

Received in lab by: Alyssa Reeves — Date/Time: 11/5/19 11:05AM

HOME LAND
LABS

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

Certificate of Analysis

Report Date: 11/13/2019

Client: Well Water Solutions, Inc.
Property Address: 12344 Point Ridge Drive
Fulton, MD 20759

Report No: 178834
Date & Time Sampled: 11/11/2019 2:00 pm
Date & Time Received: 11/12/2019 12:00 pm
Sampled By: Janet Bieber 9006JW (Exp. 9/5/2021)
Preservation: Ice
Sample Point(s): First floor bathroom sink
Water Conditioning Appears to be: None

Chlorine Residual: 0.0
Field pH: 5.5
Well Type: Drilled
Well Height: 24"
Cap Type: 1-piece
Casing: Steel
Conduit: PVC
Clarity: Clear
Sand: None Observed
Well Tag Number: HO-95-2696

Secondary Contaminants

Parameter	Method	Result	Acceptable /High	Units	SMCL	RL	Analyst	Date of Analysis
Turbidity	EPA 180.1	9	Acceptable	NTU	10.0	0.5	AND-353	11/12/2019

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 **ETL:** Environmental Testing Lab-Waldorf, **FRC:** Florida Radiochemistry, **CSL:** Chemical Solutions, Ltd.

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, Corrosion High pH: Slippery feel; Soda taste; Deposits	Naturally Occurring	Acid Neutralizer

* RUSH *

HOME LAND ENVIRONMENTAL HEALTH LABS

443-505-8375
9106 Philadelp
Rosedale MD 2
www.homelar
lab@homelan

178834 Date Due: 11/14/2

Client: Well Water Solutions, Inc.

Project:

Chain Of Custody Form

Client Name Well Water Solutions, Inc.

Address 5163 Darting Bird Lane, Columbia, MD 21044

Phone 410-935-7185 &/or 301-674-3137

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

Site Address: Lot 4
12344 Point Ridge Drive
Fulton, MD 20759

Field Collection Information

Collector's Name:	Janet Walker
Sampler's ID #:	9006JW Exp 9/5/21
Collected Date and	11/1/2019 @ 2:00
Well Tag Number:	HO-95-2696

Field pH:	5.5
Field Chlorine:	Present / Absent
Sand:	Yes / No
Clear At Time of Sample?	Yes / No
Was Well Chlorinated?	Yes / No

Well Casing and Cap Condition Bldg Permit # 01900462

Height Above Grade:	Cap Type:	Casing:	Conduit:
24"	TP	Steel	PVC

Requested Testing: *(Please Circle All That Apply)*

FHA/VA (Potability +Nitrites, Lead and Iron)

Potability (Bacteria, Nitrates, pH, Turbidity)

Arsenic	Bacteria	Cadmium	Chlorides	Gross Alpha	Iron
Lead	MTBE	Nitrates	Nitrites	Pesticides	Radium 226/228
Total Hardness	VOC's	*Other:*	*Other:* Turbidity	*Other:*	*Other:*

Source:
✓ Sample Collected RAW No Treatment from first floor Bathroom Sink. All Other Samples collected RAW No Treatment from the Kitchen Sink.

Water Conditioning:
✓ None / All Samples collected RAW from a tap
NOTE: Water Treatmentnot in use at time of collection. All Samples collected from a tap with No Water Treatment "RAW".

* Please return COC with the Lab Results

Release Signatures

Released By: J K Walker (Janet Walker) Date/Time: 11/1/2019 @ 3:00

Released By: _____ Date/Time: _____

Released By: Alyssa Dennis Date/Time: 11/12/19 12:00pm

Received in lab by: Alyssa Dennis Date/Time: 11/12/19 12:00pm

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

August 21, 2014

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

RE: Regan Property Lot 4
Point Ridge Drive
Well Tag: HO - 95 – 2696

To Whom it May Concern:

A sample was collected during a yield test on July 15, 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 **3.1 ± 1.2 picocuries/liter (pCi/L)**, while the **Gross Beta** level was **5.1 ± 1.9 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 **meets** 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 County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, Maryland 21045

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

Lab No. E0000156 ÷16 =

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property - Lot 4 County: Howard

Sample Source: Well - "Point Ridge Dr" - HC2696 Location: HO-95-2696
(Well no., lab sink, sample tap, etc.)

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

County 13 Plant No. _____

CHECK (one per Box)

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

Submitters Code: _____ Federal Project: S

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

Date Collected: 7/15/14 Time Collected: _____ a.m. 12 p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes ☒ No ☐ Iced: Yes ☐ No ☒

Remarks: Sample taken during yield test

☑	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
☒	Gross Alpha	4000	0156	EPA 900.0	3.1 ± 1.2	7/19/14	MA	7/21/14
☒	Gross Beta	4100	0156	"	5.1 ± 1.9	"	"	"
☐	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: 07/16/14 Received By: C Watty-Boyd

Data Release Signature: Deborah Miller-Buck Date: 7/21/14

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

CUSTOMER COPY II

SEND REPORT TO:

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

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

Lab No. 0154 14 16

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Field Blank County: Howard

Sample Source: Distilled H_2O (HC0000) Location: EH Lab
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A ____ Radon-222 Field Blank Bottle A ____
Bottle B ____ Bottle B ____

County 13 Plant No. ____

CHECK (one per Box)

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

Submitters Code: ____ Federal Project: S

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

Date Collected: 7/15/14 Time Collected: ____ a.m. 4 p.m.

Field pH: ____ Field Chlorine: ____

Nitric Acid Preserved: Yes ☒ No ☐ Iced: Yes ☐ No ☒

Remarks: sample taken in lab w/ distilled water

☒	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
☒	Gross Alpha	4000	0154	EPA 900.0	<2.0	7/19/14	MA	7/21/14
☒	Gross Beta	4100	0154	"	<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: 07/16/14 Received By: Cwatty-Boyd

Data Release Signature: Deborah Miller-Juen Date: 7/21/14

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

CUSTOMER COPY I

SEND REPORT TO: Bert Nixon
Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, Maryland 21045

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 - Lot 4 County: Howard

Sample Source: Well - "Point Ridge Dr." - HC2696 Location: HO-95-2696
(Well no., lab sink, sample tap, etc.)

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

County 13 Plant No. _____

CHECK (one per Box)

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

Submitters Code: _____ Federal Project: S

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

Date Collected: 7/15/14 Time Collected: _____ a.m. 12 p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes ☒ No ☐ Iced: Yes ☐ No ☒

Remarks: Sample taken during yield test

☑	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
☒	Gross Alpha	4000						
☒	Gross Beta	4100						
☐	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: _____ 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

FORM REVISED 01/13
DHMH 4540 01/13

ORIGINAL LABORATORY