

C1 69118

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED 4-14-22

Depth of Well 350 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HD-73-2315

OWNER: Hendricks Vera, WELL SITE ADDRESS: 13416 Arada Ct, TOWN: Highland

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Grayschist and Sand.

GROUTING RECORD, CASING RECORD, SCREEN RECORD sections with checkboxes and input fields for materials and dimensions.

PUMPING TEST section with fields for HOURS PUMPED, PUMPING RATE, WATER LEVEL, and TYPE OF PUMP USED.

Administrative fields including NUMBER OF UNSUCCESSFUL WELLS, WELL HYDROFRACTURED status, DRILLERS LIC. NO., and SIGNATURE.

DEPTH (nearest ft.) table and MDE USE ONLY section with checkboxes for well status and completion type.

PUMP INSTALLED section with fields for DRILLER INSTALLED PUMP, TYPE OF PUMP INSTALLED, CAPACITY, and PUMP HORSE POWER.

LATITUDE 39.197031, LONGITUDE 76.925322 (DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04.

C 1 **0714** SEQUENCE NO. (WRA USE ONLY)

1 2 3 (SEQ. NO.) 6

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

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 30 DAYS AFTER WELL COMPLETION

FILL IN THIS FORM COMPLETELY

COUNTY NUMBER 4756-216

DATE RECEIVED (WRA USE ONLY)

DATE WELL COMPLETED 3/17/98

DEPTH OF WELL

225

22 (TO NEAREST FOOT) 26

PERMIT NO. FROM "PERMIT TO DRILL WELL"

H0-73-2315

28 29 30 31 32 33 34 35 36 37

DRILLERS IDENTIFICATION NO. 15

OWNER: W. L. ... LAST NAME ... FIRST NAME ...

STREET OR RFD: ... POST OFFICE: ...

WELL LOG

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

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET		CHECK IF WATER BEARING
	FROM	TO	
Top Soil	0	2	
Standy	2	25	✓
Sand Stone	25	40	
Micka	40	50	
Sand Stone	50	55	✓
Micka	55	225	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) Y N

TYPE OF GROUTING MATERIAL (CIRCLE BOX):
 CEMENT C M BENTONITE CLAY B C

NO. OF BAGS 10 NO. OF POUNDS 1,000

GALLONS OF WATER 60

DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 0 FT. TO 30' open FT.

CASING RECORD

CASING TYPES: S T C O

STEEL CONCRETE

PLASTIC OTHER

MAIN CASING TYPE: 3 4

NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH): 37

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 37

OTHER CASING (IF USED)

DIAMETER (INCH) _____ DEPTH (FEET) FROM _____ TO _____

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE: S T B R H O

STEEL BRASS OR BRONZE OPEN HOLE

PLASTIC OTHER

DEPTH (NEAREST WHOLE FOOT)

FROM 8 TO 225

1 2 3 (SEQ. NO.) 6

1 8 9 11 15 17 21

2 23 24 26 30 32 36

3 38 39 41 45 47 51

SLOTSIZE 1. _____ 2. _____ 3. _____

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 6

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 2

METHOD USED TO MEASURE PUMPING RATE meter

WATER LEVEL: (DISTANCE FROM LAND SURFACE)
 BEFORE PUMPING _____ (NEAREST FOOT)
 WHEN PUMPING 22 (NEAREST FOOT)

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST):
 A AIR P PISTON T TURBINE
 C CENTRIFUGAL R ROTARY O OTHER (DESCRIBE BELOW)
 J JET S SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, R, S, T, O) 29

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) Y N

CAPACITY:
 GALLONS PER MINUTE (TO NEAREST GALLON) 31 35

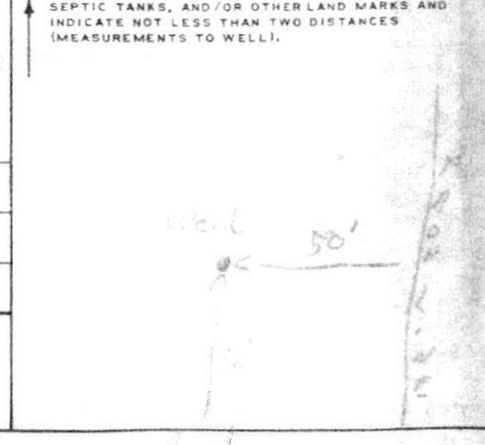
PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (NEAREST FOOT) 43 47

CASING HEIGHT

ABOVE } LAND SURFACE (NEAREST FOOT)
 BELOW } 50

LOCATION OF WELL ON LOT



CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELEVATOR LIFT OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED IN THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL" AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME: RALPH MAYNE

(PLEASE PRINT) Ralph Mayne

SIGNATURE: Ralph Mayne

DIAMETER OF SCREEN 56 (NEAREST INCH) FROM 60 TO _____

GRAVEL PACK _____

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX F

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

TELESCOPE CASING 70 72

LOG INDICATOR 74 75 76

OTHER DATA AVAILABLE _____

RECEIVED

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

June 10, 2022

Vera Hendricks
13416 ARADA CT
HIGHLAND, MD 20777

RE: 13416 ARADA CT
HIGHLAND, MD 20777
Well Tag: HO-73-2315
(Well Deepened)

Dear Vera Hendricks;

A yield test sample was collected on April 14, 2022 and submitted to the Maryland Department of Health Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the 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 the test screening revealed a **Gross Alpha** of 49.8 ± 5.0 picocuries/liter (pCi/L), while the **Gross Beta** level was 31.4 ± 3.1 pCi/L. The **Gross Alpha** result was above the **maximum contaminant level (MCL)** of **15 pCi/L**, while the **Gross Beta** level was below its targeted standard of **50 pCi/L** (roughly equivalent to the **annual dose rate** of **4 millirems/year**).

In addition, on the same laboratory result slip, a second lab analysis shows a **Gross Alpha** of 47.9 ± 4.9 picocuries/liter (pCi/L), while the **Gross Beta** level was 37.2 ± 3.2 pCi/L.

At the time of testing and with respect to the initial test screening and second lab analysis results, your "untreated" well water supply **does not meet** EPA regulatory standards for **Gross Alpha and Gross Beta**. Given these result readings, some additional testing to further evaluate **Gross Alpha and Gross Beta (long-terms)** as well as **Radium 226/228** are highly recommended to properly evaluate the **Gross Alpha and Gross Beta** particle presence in the well water supply.

In addition, given these findings, treatment to reduce /remove these naturally occurring radionuclides should be considered if the long-term test results are still above the MCL limits. Typically, a water softener system and /or a POU (point of use) reverse osmosis (R/O) unit in the kitchen are effective means of treating these types of contaminants.

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 or to schedule additional testing.

Sincerely,



Ramar Martin, Program Supervisor
Bureau of Environmental Health

Enclosure

cc: Property file, Well & Septic Program

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: 13416 Arcada Ct County: Howard

Sample Source: _____ Location: HO-73-2315

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

Radon-222 Bottle A HOST 2315 RA Radon-222 Field Blank Bottle A _____
 Radium Bottle B _____ Bottle B _____

County 113 Plant No.

CHECK (one per Box)

Type	Service	Point of Collection	Testing
Drinking Water <input checked="" type="checkbox"/>	Community <input type="checkbox"/>	Source (Raw) <input checked="" type="checkbox"/>	Emergency <input checked="" 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: 41F Federal Project:

Collector: Susan Thomas Telephone No.: 410-313-6287

Date Collected: 4/14/22 Time Collected: _____ a.m. 3:10 p.m.

Field pH: 7.0 Field Chlorine: neg

Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: collected from deepened well; resident low on water

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	1970	EPA900.0	49.8 ± 5.0	4/21/22	L.R./E.K.	4/26/22
<input checked="" type="checkbox"/> Gross Beta	4100	1970	EPA900.2	31.4 ± 3.1	4/21/22	L.R./E.K.	4/26/22
<input type="checkbox"/> Radium-226	4020						
<input type="checkbox"/> Radium-228	4030						
<input type="checkbox"/> Total Uranium	4006						
<input type="checkbox"/> Radon-222 (Bottle A)	4004						
<input type="checkbox"/> Radon-222 (Bottle B)	4004						
<input type="checkbox"/> Radon Field Blank A	4004						
<input type="checkbox"/> Radon Field Blank B	4004						
<input type="checkbox"/> Tritium							
<input type="checkbox"/> Gross Alpha	4100	1970	EPA900.0	47.9 ± 4.9	4/21/22	L.R./E.K.	4/26/22
<input type="checkbox"/> Gross Beta	4100	1970	EPA900.2	32.2 ± 3.2	4/21/22	L.R./E.K.	4/26/22

Date Received: 04/18/2022 Received By: L. Reed
 Data Release Signature: _____ Date: 4/26/22

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

SEND REPORT TO:

Ragnar Martin

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

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

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: 13416 Arada Ct

County: Howard

Sample Source: _____

Location: HO-73-2315

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

Radon-222 Bottle A _____

Radon-222 Field Blank

Bottle A HO-73-2315 FB

Bottle B _____

Radon

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: A F

Federal Project:

Collector: Susan Thompson

Telephone No.: 410-312-6287

Date Collected: 4/14/22

Time Collected: 10:00 a.m. _____ p.m.

Field pH: 7.0

Field Chlorine: neg

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: _____

<input checked="" type="checkbox"/>	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	1969	EPA9000	22	4/22/22	L.R/F.K	4/25/22
<input checked="" type="checkbox"/>	Gross Beta	4100	1969	EPA9000	24	4/22/22	L.R/F.K	4/25/22
<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: 04/18/2022

Received By: L Reed

Data Release Signature: [Signature]

Date: 4/27/22

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"/>		

APR 28 2022

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

