

C116678

SEQUENCE NO.
(MDE USE ONLY)

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

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

COUNTY
NUMBER

1236
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY
DATE Received
MM07DD10YY12

DATE WELL COMPLETED
MM05DD18YY12

Depth of Well
2220026
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
H0-95-2277

OWNER
last nameGroomfirst nameWilliamsburg

WELL SITE ADDRESS
HALL STORR

TOWN
clarksville

SUBDIVISION
BlevinsPRO.

SECTION

LOT
46

WELL LOG
Not required for driven wells

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

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Red Loamy	0	27	
Light Brown Loamy	27	40	
Purk Brown Loamy	40	50	
Gneiss	50	131	
Brown	131	132	✓
Gneiss	132	200	✓

GROUTING RECORD
yesno
WELL HAS BEEN GROUTED
(Circle Appropriate Box)
Y44N44

TYPE OF GROUTING MATERIAL (Circle one)
CEMENTCMBENTONITE CLAYBC

NO. OF BAGS17NO. OF POUNDS1578

GALLONS OF WATER102

DEPTH OF GROUT SEAL (to nearest foot)
from0ft. to51ft.
(enter 0 if from surface)

CASING RECORD
casing
types
insert
appropriate
code
below

ST	CO
STEEL	CONCRETE
PL	OT
PLASTIC	OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL	06	54
6061	6364	6670

OTHER CASING (if used)
diameterdepth (feet)
inchfromto

SCREEN RECORD
screen type
or open hole
insert
appropriate
code
below

ST	BR	HO
STEEL	BRASS	OPEN
PL	BRONZE	HOLE
PLASTIC		OTHER

DEPTH (nearest ft.)
H054200

NUMBER OF UNSUCCESSFUL WELLS:0

WELL HYDROFRACTURED
yesno
Y44N44

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION
WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND
IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED
HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

DRILLERS LIC. NO.1 M009

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.1 D

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

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.)WQ

7072747576

TELESCOPE
CASING

LOG
INDICATOR

OTHER DATA

PUMPING TEST
HOURS PUMPED (nearest hour)03

PUMPING RATE (gal. per min.)12

METHOD USED TO
MEASURE PUMPING RATE1

WATER LEVEL (distance from land surface)
BEFORE PUMPING26ft.
WHEN PUMPING46ft.

TYPE OF PUMP USED (for test)
AairPpistonTturbine
CcentrifugalRrotaryOother
(describe below)
JjetSsubmersible

PUMP INSTALLED
DRILLER INSTALLED PUMPYESNO

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)3135

PUMP HORSE POWER3741

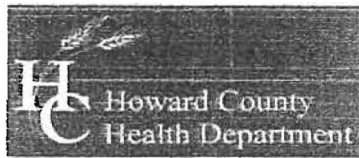
PUMP COLUMN LENGTH
(nearest ft.)4347

CASING HEIGHT (circle appropriate box
and enter casing height)
LAND SURFACE
below02(nearest
foot)

LATITUDE 39.111464
LONGITUDE 76.56092
(DEFAULT COORD. WGS 84)

NOTES:

B 1 1 2 3 6 <u>0645</u>	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type <u>536792</u>	STATE PERMIT NUMBER <u>40-95-2277</u> fill in this form completely
Date Received (APA) <u>04/05/12</u> 8 MM DD YY 13 OWNER INFORMATION 15 Last Name <u>Williamsburg</u> Owner <u>Hornes</u> First Name 34 36 <u>5485 Harpers Farm rd.</u> Street or RFD 55 57 <u>Columbia</u> Town 70 <u>MD</u> State 72 <u>21049</u> Zip 76		B 3 LOCATION OF WELL 8 COUNTY <u>Howard</u> 21 23 SUBDIVISION <u>BLEVINS PRO.</u> 42 SECTION <u>44</u> 46 LOT <u>7</u> 48 50 52 NEAREST TOWN <u>Clarksville</u> 71	
DRILLER INFORMATION Driller's Name <u>Allen Compton</u> 76 License No. <u>M.S.D. 009</u> 81 Firm Name <u>Foghts Well Drilling</u> Address <u>580 Obrecht rd Sparksville</u> Signature <u>Allen Compton</u> 4-3-12 Date		B 4 SOURCES OF DRILLING WATER 1. <u>Hall Shop rd.</u> 11 STREET ADDRESS 30 2. 3. ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST <input checked="" type="checkbox"/> EAST SOUTH 34 <u>1400</u> 37 DISTANCE FROM ROAD <u>FT</u> ENTER FT OR MI 38 39 TAX MAP: <u>35</u> BLK: <u>19</u> PARCEL <u>310</u>	
B 2 WELL INFORMATION APPROX. PUMPING RATE <u>5</u> (GAL. PER MIN.) 8 <u>500</u> 12 AVERAGE DAILY QUANTITY NEEDED <u>14</u> 20 (GAL. PER DAY)		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL <u>Howard</u> (13) <u>A 536034</u> COUNTY NAME COUNTY NO. STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED <u>4/12/12</u> <u>John W. Way</u> <u>4/12/13</u> 43 MM DD YY 48 CO SIGNATURE EXP. DATE	
USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input type="checkbox"/> CLOSED LOOP GEOTHERMAL		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 	
APPROXIMATE DEPTH OF WELL <u>300</u> FEET 24 28 APPROXIMATE DIAMETER OF WELL <u>6</u> INCH METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN 30 <u>AIR-ROTary</u> AIR-PERCussion ROTARY (Hydraulic Rotary) 37 <u>CABLE</u> REVerse-ROTary DRive-POINT other _____		REPLACEMENT OR DEEPEENED WELLS (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED 39 <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) 41 _____ 52	
Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER _____ <u>G</u> _____ PERMIT No. <u>40-95-2277</u> 70 71 72 73 74 75 76 77 78 79			
SPECIAL CONDITIONS <u>Need Radium Sample</u> NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.			



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(410) 313-2640 Fax (410) 313-2645
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, 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:

Well Site Location:

Blevins 1-3-5-6-7
Subdivision/Property Name Lot# Road Name

☒ The well site has been staked by Bill Adcock & Assoc.
(professional land surveyor or company employing professional land surveyors)
on 4-4-12 (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 3/11/05

Yield Test Data Sheet

County File # _____

MD Well Permit #: H0-95-2277Subdivision Name: Blevins PRO.Section _____ Lot # 7Street Address: Hall Shop rdMeasuring Point (MP) Description: Top of casing
(for ex. "Top of casing")Distance from MP to ground surface 2 ft.Well Depth 200 ft.Well Driller: Fogles - Allen

Must be submitted with the State of Maryland Well Completion Report

Submit to:

NOTES:

Pump Start Time	Static Water level: <u>26</u> ft.	Pumping Rate () Time to fill <u>1</u> gal. bucket () Flow meter reading (if used)	Calculated Flow (gallons per minute)
<u>10:00</u>			<u>12</u>
TIME	WATER LEVEL BELOW M.P.		
Water level and pumping rate must be recorded every 15 minutes			
1 <u>10:00</u>	<u>26</u> ft.	<u>5</u>	<u>12</u> GPM
2 <u>10:15</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
3 <u>10:30</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
4 <u>10:45</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
5 <u>11:00</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
6 <u>11:15</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
7 <u>11:30</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
8 <u>11:45</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
9 <u>12:00</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
10 <u>12:15</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
11 <u>12:30</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
12 <u>12:45</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
13 <u>1:00</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
14 <u>1:15</u>	<u>46</u> ft.	<u>5</u>	<u>12</u> GPM
15	ft.		GPM
16	ft.		GPM
17	ft.		GPM
18	ft.		GPM
19	ft.		GPM
20	ft.		GPM
21	ft.		GPM
22	ft.		GPM
23	ft.		GPM
24	ft.		GPM
25	ft.		GPM
26	ft.		GPM
27	ft.		GPM
28	ft.		GPM
29	ft.		GPM
30	ft.		GPM

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: _____ 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 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: _____ Telephone #: _____
Subdivision: _____ Lot #: _____ Well Tag #: HO - 95-2277
Site Address: 11028 Blevins

Submersible Pump Data

Make: _____
Model #: _____
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF approved: _____

Well Cap and Electric Conduit

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

Depth of well encountered at time of pump installation: _____ (feet)

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors or Cable guards are required - Must circle one

Safety rope, if used, attached to inside of well casing with eye bolt _____

Piping to house

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

House Connection

PVC sleeved to undisturbed soil at wall penetration: _____
Approximate length of sleeve: _____
Sleeve caulked and 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: _____

Date Insp. Approved: 1/14/2010 BB

Inspection Data: Pitless adapter and water supply line at least 36" below grade

Two piece cap installed and attached to casing securely

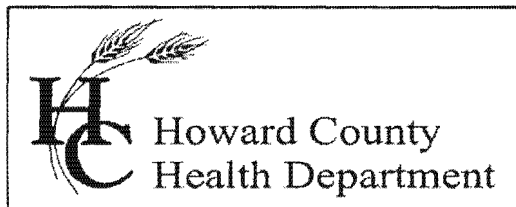
Elec. conduit extends at least 18" below grade/attached to cap properly

Safety rope installed inside of well casing

Correct well tag attached properly and casing 8" above finished grade

Water supply line sleeved adequately at house connection

Adequate grout observed below pitless adapter



Bureau of Environmental Health

8930 Stanford Blvd., Columbia, MD 21046-2147

Main: 410-313-1774 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – OCTOBER 15, 2016

April 15, 2016

Homeowner
11028 Blevins Drive
Clarksville, MD 21029

**RE: Blevins Property, Lot 6
11028 Blevins Drive
Building Permit: B15002663
Well Permit: HO-95-2277**

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 **1/19/2016**. Final approval of the well line connection to the dwelling was granted on **1/14/2016**. The well construction was completed on **5/18/2012**. Water samples were collected on **3/11/2016 & 3/31/2016**.

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 **3/31/2016**. Results showed a Radium 226 of **0.3 ± 0.0 pCi/L** and Radium 228 of **0.7 ± 0.0 pCi/L**. Radium 226 and Radium 228 results have a combined reference level of 5 pCi/L respectively which is below the targeted level. At the time of testing and with respect to these parameters, the well water is safe for all uses.

Volatile organic compound (VOC) sample was collected on **6/11/2012** respectively. This testing was performed to establish a baseline evaluation of the well water supply in the area due to known VOC ground water contamination concerns. Results from this sampling did not show any presence of VOC contamination. With respect to the parameters and guidelines of the EPA National Primary Drinking Water Regulations, the future well water supply is currently 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-95-2277. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

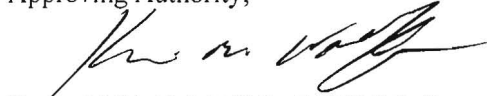
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a 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 Best Available Technology (BAT) for your onsite sewage disposal. You will also find a link to Maryland Department of the Environments website which elaborates in further detail operation and maintenance of your BAT.

Approving Authority,



Kevin M Wolf, L.E.H.S., REHS/RS, Supervisor
Groundwater Management Section
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File
enclosures

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 84695 Account #: 4470
Reference: Williamsburg Group LLC Company: Williamsburg Group LLC
Location: 11986 Hall Shop Road Requested By: Bob Corbett
Clarksville, MD 21029 Source: Test Well Water Lot 7
Date/ Time Collected: 6/11/2012 1120 Site: Pump Hose
Date/Time Rec'd: 6/11/2012 1225 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.8
Collected By: J. Yeager 6176JY Well #: HO-95-2277

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	214	pCi/L	15	900.0	6/14/2012 / 0647 / MJN
Gross Beta, Short Term	56.6	pCi/L	50	900.0	6/14/2012 / 0647 / MJN
Radium-226	14.8	pCi/L	****	903.1	6/25/2012 / 1316 / MJN
Radium-228	5.8	pCi/L	****	Ra-05	6/22/2012 / 1322 / MJN

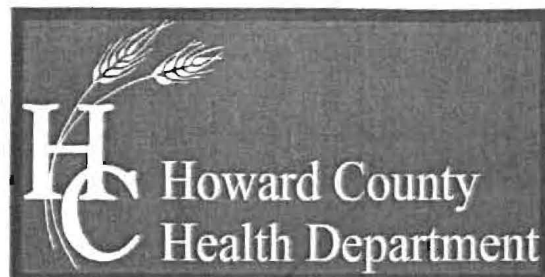
NOTES

- 1 ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 Gross Alpha Detection Limit: 1.7 pCi/L; Gross Beta Detection Limit: 2.1 pCi/L
- 3 pCi/L = picocuries per liter
- 4 Radium 226 Detection Limit: 0.1 pCi/L; Radium 228 Detection Limit: 0.9 pCi/L
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 Sub-contracted to Reference Lab #278
- 7 ND:None Detected
- 8 Visual well check: Sealed, vented cap
- 9 pH and Chlorine level tested on site

Reason for Test: Client's Information

Date Reported: 6/28/2012

MD State Certification # 133



Bureau of Environmental Health

7178 Columbia Gateway Drive, Columbia, MD 21046-2147

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Twitter: HowardCoHealthDep

Maura Rossman, M.D., Acting Health Officer

October 22, 2012

Williamsburg Homes

Attn. Bob Corbett

5485 Harpers Farm Road, Suite 200

Columbia, Maryland 21044

RE: Blevin's Property Lot 6
Hall Shop Road
Well Tag: HO - 95 - 2277

Dear Mr. Corbett:

A sample was collected during a yield test on June 12, 2012 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 120.3 ± 8.4 picocuries/liter (pCi/L), while the **Gross Beta** level was 29.2 ± 2.9 pCi/L. The **Gross Alpha** result was above its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value of 50 pCi/L (roughly equivalent to the annual dose rate of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply **does not** meet EPA regulatory standards. Additional testing **for these parameters, plus Radium 226 and Radium 228** will be required to secure the future Use & Occupancy. Given the **highly** elevated finding for **Gross Alpha** and somewhat higher than typical finding for **Gross Beta**, **very likely**, the installation of a water softener system and a reverse osmosis system will be necessary. **Pre and Post short and long term Gross Alpha and Beta, plus a post Radium 226 / 228** will be needed to properly evaluate the effectiveness of the installed treatment(s). Given that it typically takes up to one month to perform and receive back the **Radium** analyses, plan accordingly. Given these levels, the possibility that treatment won't be able to adequately treat these levels has to be considered. Please also 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: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property file

Send Report To:

State of Maryland
DHMH - Laboratories Administration

Division of Environmental Chemistry

RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P. H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0952277 No. B: Field Blank Bottle No. 1: F-BKWC1312 No B:

Plant/Site Name: Plum's Pump - Lot 7 County: Haward

Sample Source: Hall shop Rd Location: H0-95-2277
(well no, lab sink, sample tap, etc.)

County: ☒ 1 ☒ 2 Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

CHECK (one per box)

Drinking Water ☐
Landfill ☐
Stream ☐
Other ☐

Community ☐
Non-community ☐
Private ☐
Other ☐

Source (raw water) ☐
Distribution (treated) ☐
MCL ☐

Emergency ☐
Routine ☒
Recheck ☐
Special ☐

Collector: K. Wolf

Telephone No.: 410 713 2645

Date Collected: 6/12/12 cont

Time Collected: a.m. 12:30 p.m.

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☐ No ☐

Submitters Code: ☐ ☐ Federal Project: ☐

Field Data: pH Chlorine

Remarks: Sample old, prepared to < 2.0
Duplicate 113.8 ± 8.4 B 26.2 ± 2.7

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	2984	120.3 ± 8.4	06/14/12	06/15/12
✓	Gross Beta	4100	2984	29.2 ± 2.9	"	"
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: 06/13/12

Supervisor: [Signature]

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



SEND REPORT TO:

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Bert Nizer
8930 Stanford Blvd
Columbia MD 21045

Laboratories Administration
301 W. Preston St., Baltimore, MD 21201
Robert A. Myers, Ph.D., Director

Lab No.

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Blum's Prop lot (6)County: HowardSample Source: Hall Shop RdLocation: H0-95-2277

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

Radon-222 Bottle A HOKW 2277 RAD Radon-222 Field Blank

Bottle A

Bottle B

Bottle B

County 13

Plant No.

CHECK (one per Box)

Type
Drinking Water <input checked="" type="checkbox"/>
Landfill <input type="checkbox"/>
Stream <input type="checkbox"/>
Other <input type="checkbox"/>

Service
Community <input type="checkbox"/>
Non-Community <input type="checkbox"/>
Private <input checked="" type="checkbox"/>
Other <input type="checkbox"/>

Point of Collection
Source (Raw) <input checked="" type="checkbox"/>
Distribution (treated) <input type="checkbox"/>
MCL <input type="checkbox"/>

Testing
Emergency <input type="checkbox"/>
Routine <input checked="" type="checkbox"/>
Recheck <input type="checkbox"/>
Special <input type="checkbox"/>

Submitters Code: Federal Project: Collector: K. WolfTelephone No.: 410 313 2645Date Collected: 2/10/15Time Collected: 11:45 a.m. p.m.Field pH: -Field Chlorine: -Nitric Acid Preserved: Yes ☒ No ☐Iced: Yes ☐ No ☐Remarks: Raw sample for Radium 226 228

<input checked="" type="checkbox"/>	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input type="checkbox"/>	Gross Alpha	4000						
<input type="checkbox"/>	Gross Beta	4100						
<input checked="" type="checkbox"/>	Radium-226	4020						
<input checked="" type="checkbox"/>	Radium-228	4030						
<input type="checkbox"/>	Total Uranium	4006						
<input type="checkbox"/>	Radon-222 (Bottle A)	4004						
<input type="checkbox"/>	Radon-222 (Bottle B)	4004						
<input type="checkbox"/>	Radon Field Blank A	4004						
<input type="checkbox"/>	Radon Field Blank B	4004						
<input type="checkbox"/>	Tritium							
<input type="checkbox"/>								

Date Received: _____

Received By: _____

Data Release Signature: _____

Date: _____

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



SEND REPORT TO:

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Bert Nizer
8930 Standard Blvd
Columbia MD 21045Laboratories Administration
201 W. Preston St., Baltimore, MD 21201
Robert A. Myers, Ph.D., Director

Lab No.

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Blum's Prep Lot (6)County: HowardSample Source: Hall Shop RdLocation: H0-9.5-2277

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

Radon-222 Bottle A H0KW2277 RAD Radon-222 Field Blank

Bottle A _____

Bottle B _____

Bottle B _____

County 13Plant No.

--	--	--	--	--	--	--	--	--	--

CHECK (one per Box)

Type	
Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Service	
Community	<input type="checkbox"/>
Non-Community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Point of Collection	
Source (Raw)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Testing	
Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Submitters Code:

--	--

Federal Project:

--

Collector: K. WolfTelephone No.: 410 313 2645Date Collected: 2/10/15Time Collected: 11:45 a.m. _____ p.m.Field pH: Field Chlorine: Nitric Acid Preserved: Yes ☒ No ☐Iced: Yes ☐ No ☐Remarks: Raw sample for Radium 226 228

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



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.

Bert Nixon
8930 Stanford Blvd
Columbia MD 21045

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Blenheim Prop Lot (6)County: HowardSample Source: Hull Ship Rd.Location: H0-95-2277

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

Radon-222 Bottle A H0 KW 2277 LT
Bottle B _____

Radon-222 Field Blank

Bottle A _____

Bottle B _____

County 13Plant No.

--	--	--	--	--	--	--	--	--	--

CHECK (one per Box)

Type	
Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Service	
Community	<input type="checkbox"/>
Non-Community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Point of Collection	
Source (Raw)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Testing	
Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Submitters Code: —Federal Project: —Collector: K. WolfTelephone No.: 410 313 2645Date Collected: 2/10/15Time Collected: 11:45 a.m. _____ p.m.Field pH: —Field Chlorine: —Nitric Acid Preserved: Yes ☒ No ☐Iced: Yes ☐ No ☐Remarks: Raw sample for 2 B Long Term

<input type="checkbox"/>	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha <u>Long</u>	4000						
<input checked="" type="checkbox"/>	Gross Beta <u>Term</u>	4100						
<input type="checkbox"/>	Radium-226	4020						
<input type="checkbox"/>	Radium-228	4030						
<input type="checkbox"/>	Total Uranium	4006						
<input type="checkbox"/>	Radon-222 (Bottle A)	4004						
<input type="checkbox"/>	Radon-222 (Bottle B)	4004						
<input type="checkbox"/>	Radon Field Blank A	4004						
<input type="checkbox"/>	Radon Field Blank B	4004						
<input type="checkbox"/>	Tritium							
<input type="checkbox"/>								
<input type="checkbox"/>								

Date Received: _____

Received By: _____

Data Release Signature: _____

Date: _____

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

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. • Westminster, MD 21158 • MD State Certification #133

(410) 848-1014 • (410) 876-4554 • FAX (410) 848-0298

VOLATILE ORGANIC WATER ANALYSIS REPORT**LAB ID # 84696**

Location:

Lot 7

11986 Hall Shop Road

Clarksville, MD 21029

Date & Time Collected:

06/11/12

1120

Collected by:

J. Yeager

6176JY

Work Order #

46477

Company

Williamsburg Group LLC

Requested by

Bob Corbett

Source:

Well, HO-95-2277

Site:

Raw Pump Hose

Treatment:

None

CONTAMINANT	EPA CONT ID	MCL (PPB)	ACTUAL LEVEL
REGULATED			
Benzene	2990	5	ND
Carbon Tetrachloride	2982	5	ND
o-Dichlorobenzene	2968	600	ND
p-Dichlorobenzene	2969	75	ND
1,2-Dichloroethane	2980	5	ND
1,1-Dichloroethene	2977	7	ND
cis-1,2-Dichloroethene	2380	70	ND
trans-1,2-Dichloroethene	2979	100	ND
Dichloromethane	2964	5	ND
1,2-Dichloropropane	2983	5	ND
Ethylbenzene	2992	700	ND
Monochlorobenzene	2989	100	ND
Styrene	2996	100	ND
Tetrachloroethene (PCE)	2987	5	ND
Toluene	2991	1000	ND
1,2,4-Trichlorobenzene	2378	70	ND
1,1,1-Trichloroethane	2981	200	ND
1,1,2-Trichloroethane	2985	5	ND
Trichloroethene (TCE)	2984	5	ND
Vinyl Chloride	2976	2	ND
Xylenes (Total)	2955	10000	ND

TRIHALOMETHANES

Bromodichloromethane	2943	ND
Bromoform	2942	ND
Chloroform	2941	ND
Dibromochloromethane	2944	ND

ADDITIONAL COMPOUNDS

TAME	ND
Chloromethane	ND

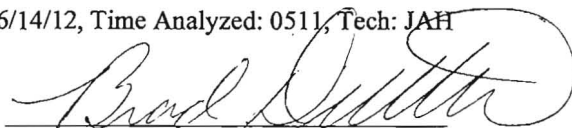
CONTAMINANT	EPA CONT ID	ACTUAL LEVEL
UNREGULATED		
Bromobenzene	2993	ND
Bromochloromethane	2430	ND
Bromomethane	2214	ND
n-Butylbenzene	2422	ND
Sec-butylbenzene	2428	ND
Tert-butylbenzene	2426	ND
Chloroethane	2216	ND
o-Chlorotoluene	2965	ND
p-Chlorotoluene	2966	ND
m-Dichlorobenzene	2967	ND
1,1-Dichloroethane	2978	ND
1,3-Dichloropropane	2412	ND
2,2-Dichloropropane	2416	ND
1,1-Dichloropropene	2410	ND
cis-1,3-Dichloropropene	2413	ND
trans-1,3-Dichloropropene	2413	ND
Dichlorodifluoromethane	2212	ND
Hexachlorobutadiene	2246	ND
Isopropylbenzene	2994	ND
p-Isopropyltoluene	2030	ND
MTBE	2251	ND
Naphthalene	2248	ND
n-Propylbenzene	2998	ND
1,1,1,2-Tetrachloroethane	2986	ND
1,1,2,2-Tetrachloroethane	2988	ND
1,2,3-Trichlorobenzene	2420	ND
Trichlorofluoromethane	2218	ND
1,2,3-Trichloropropane	2414	ND
1,2,4-Trimethylbenzene	2418	ND
1,3,5-Trimethylbenzene	2424	ND
m, p-xylene	2995	ND
o-xylene	2997	ND

NOTES:

- 1) MCL: Maximum Contaminant Level
- 2) Detection limit: 0.50 PPB (except for Xylenes, meta/para: 1.0 PPB; and Xylenes total: 1.5 PPB)
- 3) ND: None Detected
- 4) PPB: Parts Per Billion (micrograms per liter)
- 5) Sub-contracted to Lab #128, method EPA 524.2, Date Analyzed: 06/14/12, Time Analyzed: 0511, Tech: JAH

Date Reported: 06/19/12

Reviewed by:



VOLATILE ORGANIC WATER ANALYSIS REPORT**ID # 83536**

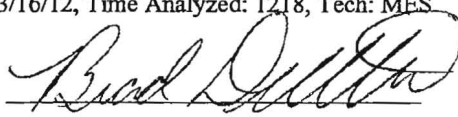
Location:	Williamsburg Group LLC 11986 Hall Shop Road Clarksville, MD 21029	Work Order #	45187
Date & Time Collected:	03/09/12 1000	Requested by	Bob Corbett
Collected by:	C. Holland 0547CH	Source:	Well, HO-95-2257, Lot 8
		Site:	Raw Well/ Bailer
		Treatment:	None

CONTAMINANT	EPA CONT ID	MCL (PPB)	ACTUAL LEVEL	CONTAMINANT	EPA CONT ID	ACTUAL LEVEL
REGULATED				UNREGULATED		
Benzene	2990	5	ND	Bromobenzene	2993	ND
Carbon Tetrachloride	2982	5	ND	Bromochloromethane	2430	ND
o-Dichlorobenzene	2968	600	ND	Bromomethane	2214	ND
p-Dichlorobenzene	2969	75	ND	n-Butylbenzene	2422	ND
1,2-Dichloroethane	2980	5	ND	Sec-butylbenzene	2428	ND
1,1-Dichloroethene	2977	7	ND	Tert-butylbenzene	2426	ND
cis-1,2-Dichloroethene	2380	70	ND	Chloroethane	2216	ND
trans-1,2-Dichloroethene	2979	100	ND	o-Chlorotoluene	2965	ND
Dichloromethane	2964	5	ND	p-Chlorotoluene	2966	ND
1,2-Dichloropropane	2983	5	ND	m-Dichlorobenzene	2967	ND
Ethylbenzene	2992	700	ND	1,1-Dichloroethane	2978	ND
Monochlorobenzene	2989	100	ND	1,3-Dichloropropane	2412	ND
Styrene	2996	100	ND	2,2-Dichloropropane	2416	ND
Tetrachloroethene (PCE)	2987	5	ND	1,1-Dichloropropene	2410	ND
Toluene	2991	1000	0.74	cis-1,3-Dichloropropene	2413	ND
1,2,4-Trichlorobenzene	2378	70	ND	trans-1,3-Dichloropropene	2413	ND
1,1,1-Trichloroethane	2981	200	ND	Dichlorodifluoromethane	2212	ND
1,1,2-Trichloroethane	2985	5	ND	Hexachlorobutadiene	2246	ND
Trichloroethene (TCE)	2984	5	ND	Isopropylbenzene	2994	ND
Vinyl Chloride	2976	2	ND	p-Isopropyltoluene	2030	ND
Xylenes (Total)	2955	10000	ND	MTBE	2251	ND
TRihalOMETHANES				Naphthalene	2248	ND
Bromodichloromethane	2943		ND	n-Propylbenzene	2998	ND
Bromoform	2942		ND	1,1,1,2-Tetrachloroethane	2986	ND
Chloroform	2941		ND	1,1,2,2-Tetrachloroethane	2988	ND
Dibromochloromethane	2944		ND	1,2,3-Trichlorobenzene	2420	ND
ADDITIONAL COMPOUNDS				Trichlorofluoromethane	2218	ND
TAME			ND	1,2,3-Trichloropropane	2414	ND
Chloromethane			ND	1,2,4-Trimethylbenzene	2418	ND
				1,3,5-Trimethylbenzene	2424	ND
				m, p-xylene	2995	ND
				o-xylene	2997	ND

NOTES:

- 1) MCL: Maximum Contaminant Level
- 2) Detection limit: 0.50 PPB (except for Xylenes, meta/para:1.0 PPB; and Xylenes total:1.5 PPB)
- 3) ND: None Detected
- 4) PPB: Parts Per Billion (micrograms per liter)
- 5) Sub-contracted to Lab #128, method EPA 524.2, Date Analyzed: 03/16/12, Time Analyzed: 1218, Tech: MES

Date Reported: 03/22/12

Reviewed by: 

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	106434	Account #:	4470
Reference:	Estate at Clarksville Lot 6	Company:	Williamsburg Homes LLC
Location:	11028 Blevins Drive	Requested By:	Bob Corbett
	Clarksville, MD 21029	Source:	Well Water
Date/ Time Collected:	3/31/2016 1055	Site:	Kitchen Sink Tap
Date/Time Rec'd:	3/31/2016 1238	Treatment:	**
Chlorine ppm:	Free: ND Total: ND	pH:	7.2
Collected By:	J. Yeager 6176JY	Well #:	HO-95-2277

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Radium-226	0.3	pCi/L	****	903.1	4/11/2016 / 1100 / MJN
Radium-228	<0.7	pCi/L	****	Ra-05	4/11/2016 / 1124 / MJN

NOTES

- 1 ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 **Sample collected after Softener/Neutralizer, but prior to Reverse Osmosis
- 3 pCi/L = picocuries per liter
- 4 Radium 226 Detection Limit: 0.2 pCi/L; Radium 228 Detection Limit: 0.7 pCi/L
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 Sub-contracted to Reference Lab #278
- 7 ND:None Detected
- 8 Visual well check: Sealed, vented cap
- 9 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy
Building Permit # : B15002663

Date Reported: 4/12/2016

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	106098	Account #:	4470
Reference:	Estate at Clarksville Lot 6	Company:	Williamsburg Homes LLC
Location:	11028 Blevins Drive	Requested By:	Bob Corbett
	Clarksville, MD 21029	Source:	Well Water
Date/ Time Collected:	3/11/2016 1020	Site:	Pressure Tank
Date/Time Rec'd:	3/11/2016 1435	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	7.0
Collected By:	T. Frazier 3126TF	Well #:	HO-95-2277

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	34.4	MPN/ 100 ml	<1.0	SM18 9223	3/12/2016 / 1200 / LLO
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	3/12/2016 / 1200 / LLO
Nitrate	<1.0	mg/L	10	601	3/11/2016 / 1600 / CRS
Turbidity	1.95	NTU	<10	SM18 2130B	3/11/2016 / 1615 / CRS
Sand	NS	mg/L	5	Visual/Gravimetric	3/11/2016 / 1615 / CRS

NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NS = None Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND:None Detected
- 7 Visual well check: Sealed, vented cap
- 8 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : B15002663

Date Reported: 3/14/2016

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	106433	Account #:	4470
Reference:	Estate at Clarksville Lot 6	Company:	Williamsburg Homes LLC
Location:	11028 Blevins Drive	Requested By:	Bob Corbett
	Clarksville, MD 21029	Source:	Well Water
Date/ Time Collected:	3/31/2016 1046	Site:	Pressure Tank
Date/Time Rec'd:	3/31/2016 1238	Treatment:	**
Chlorine ppm:	Free: ND Total: ND	pH:	7.3
Collected By:	J. Yeager 6176JY	Well #:	HO-95-2277

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	4/1/2016 / 1000 / LLO
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	4/1/2016 / 1000 / LLO

NOTES

- 1 **Sample collected prior to Softener/Neutralizer/Reverse Osmosis
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 4 ND:None Detected
- 5 Visual well check: Sealed, vented cap
- 6 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy
Building Permit # : B15002663

Date Reported: 4/1/2016

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	84694	Account #:	4470
Reference:	Williamsburg Group LLC	Company:	Williamsburg Group LLC
Location:	11986 Hall Shop Road	Requested By:	Bob Corbett
	Clarksville, MD 21029	Source:	Test Well Water Lot 7
Date/ Time Collected:	6/11/2012 1120	Site:	Pump Hose
Date/Time Rec'd:	6/11/2012 1225	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	6.8
Collected By:	J. Yeager 6176JY	Well #:	HO-95-2277

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	19.2	MPN/ 100 ml	<1.0	SM18 9223	6/12/2012 / 0900 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	6/12/2012 / 0900 / CCH
Nitrate	<1.0	mg/L	10	601	6/12/2012 / 1000 / CCH
Turbidity	3.74	NTU	<10	SM18 2130B	6/12/2012 / 0940 / JKW
Sand	NS	mg/L	5	Visual/Gravimetric	6/12/2012 / 0900 / CCH

NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NS = None Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND = None Detected
- 7 Subcontracted to Reference Lab #128
- 8 pH and Chlorine level tested on site

Reason for Test : Client's Information

Date Reported: 6/13/2012

Send Report To:

Bert Nixon

State of Maryland
DHMH - Laboratories Administration

Division of Environmental Chemistry

RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P. H., Director

Howard County Health Department
Bureau of Environmental Health
7179 Columbia Gateway Drive
Columbia, Maryland 21046

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: — No. B: — Field Blank Bottle No. 1: F13 KW 61312 No B: —

Plant/Site Name: Howard County Health Dept County: Howard

Sample Source: Distilled H₂O Location: lab
(well no, lab sink, sample tap, etc.)

County: ☒ 1 ☒ 3 Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

CHECK (one per box)

Drinking Water ☒
Landfill ☐
Stream ☐
Other ☐

Community ☐
Non-community ☐
Private ☒
Other ☐

Source (raw water) ☒
Distribution (treated) ☐
MCL ☐

Emergency ☐
Routine ☒
Recheck ☐
Special ☐

Collector: K. Wolf

Telephone No.: 410-313-2645

Date Collected: 6/13/12

Time Collected: 8:30 a.m. — p.m.

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☐ No ☐

Submitters Code: ☐ ☐

Federal Project: ☐

Field Data: — pH — Chlorine —

Remarks: Sample pH preserved to 2.0

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000				
<input checked="" type="checkbox"/>	Gross Beta	4100				
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
<input checked="" type="checkbox"/>	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: — / — / —

Supervisor: —

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

Send Report To:

Bart Alixon

Howard County Health Department
Bureau of Environmental Health
7176 Columbia Gateway Drive
Columbia, Maryland 21046

State of Maryland
DHMH - Laboratories Administration

Division of Environmental Chemistry
RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201
John M. DeBoy, Dr. P. H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0952277 No. B: — Field Blank Bottle No. 1: FBKW4312 No. B: —

Plant/Site Name: Blarin's Pump - Lot 7 County: Howard

Sample Source: Hall shop Rd Location: H0-95-2277
(well no, lab sink, sample tap, etc.)

County: ☒ 1 ☒ 3 Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

CHECK (one per box)

Drinking Water ☒
Landfill ☐
Stream ☐
Other ☐

Community ☐
Non-community ☐
Private ☒
Other ☐

Source (raw water) ☒
Distribution (treated) ☐
MCL ☐

Emergency ☐
Routine ☒
Recheck ☐
Special ☐

Collector: K. Wolf

Telephone No.: 410 313 2645

Date Collected: 6/12/12

Time Collected: — a.m. 12:30 p.m.

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☐ No ☐

Submitters Code: ☐ ☐

Federal Project: ☐

Field Data: — pH — Chlorine

Remarks: Sample pH measured to < 2.0

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000				
✓	Gross Beta	4100				
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: — / — / —

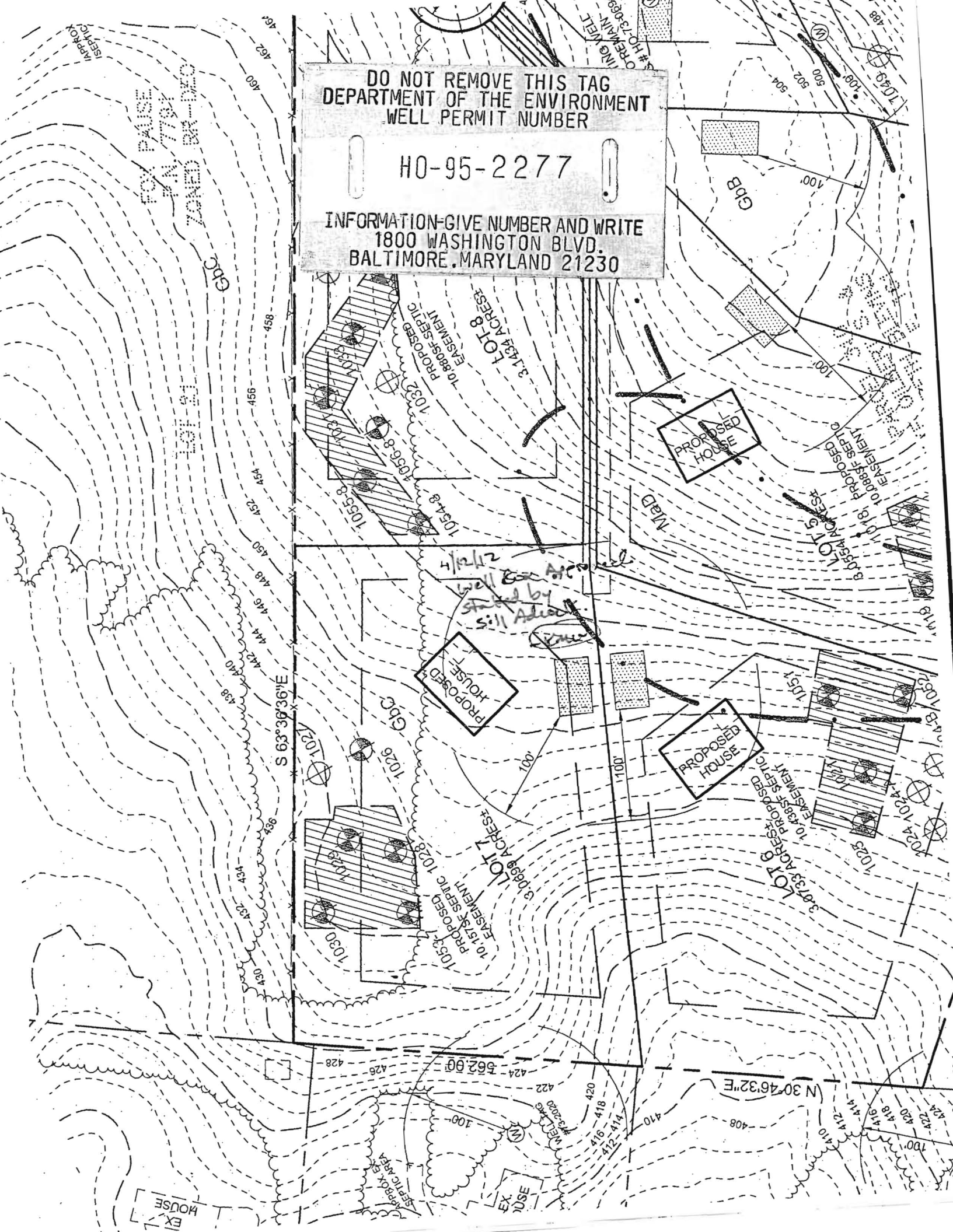
Supervisor: —

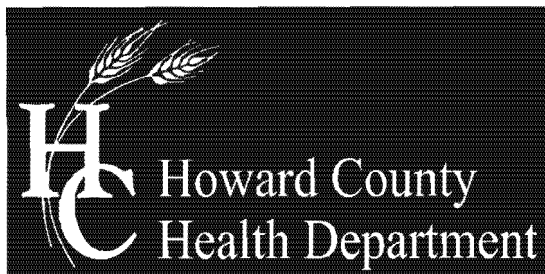
•Tel. No.: (410) 767 - 5537 •Fax No.: (410) 333- 5373

DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

HO-95-2277

INFORMATION-GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD.
BALTIMORE, MARYLAND 21230





Bureau of Environmental Health

7178 Columbia Gateway Drive, Columbia, MD 21046-2147

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

Twitter: HowardCoHealthDep

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

Williamsburg Homes

Attn. Bob Corbett

5485 Harpers Farm Road, Suite 200

Columbia, Maryland 21044

RE: Blevin's Property Final Lot 6

Hall Shop Road

Well Tag: HO - 95 - 2277

Dear Mr. Corbett:

Samples were collected during a follow-up field test on February 10, 2015 and submitted to the Florida Radiochemistry (FRC) Laboratory to reassess / affirm the presence of **Gross Alpha**, **Gross Beta** and **Radium 226/228** in the future well water supply. This testing was performed to determine the potential viability of the well and the likely ability of treatment to sufficiently mitigate these naturally occurring radioactive nuclides that have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in this area of development within the County.

Results from this long term screening revealed a **Gross Alpha** of 73.4 ± 5.8 picocuries/liter (pCi/L), while the **Gross Beta** level was 73.9 ± 3.3 pCi/L. The **Gross Alpha** result was above its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

Additionally, a pre-treated **Radium 226 / 228** sample was collected and submitted to FRC. These naturally occurring isotopes of radium are considered the most important due to their longer half-lives and health significance. Results revealed a **Radium 226** level of 10.4 ± 0.5 pCi/L, while the **Radium 228** level was 6.1 ± 0.9 pCi/L. Here the **combined Radium 226 / 228** was above the MCL of 5 pCi/L.

At the time of this testing and with respect to these parameters, the future well water supply still **does not** meet EPA regulatory standards. These findings are still significantly high and now with confirming high **Radium 226 / 228** findings. If these results are indicative of future levels in this well, treatment may be able to effectively address these contaminant levels. **At a minimum**, the installation of a water softener system and reverse osmosis (R/O) will be necessary. **Pre and Post short and long term Gross Alpha and Beta, plus a post Radium 226 / 228** will be needed to properly evaluate the effectiveness of the installed treatment. Given that it typically takes up to one month to perform and receive back the **Radium** analyses, plan accordingly. Please also 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 report is enclosed for your information. Please call this office at **410-313-1773** if you have any further questions.

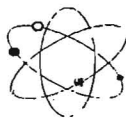
Sincerely,

A handwritten signature in cursive script, appearing to read "Bert Nixon".

Bert Nixon, Director
Bureau of Environmental Health

Enclosure

✓ cc: Well & Septic property file



Florida Radiochemistry Services, Inc.

Analysis Report

Lab Sample I.D. 1502109-01 1502109-02

Client I.D. HOKW2277RAD HOKW2277LT

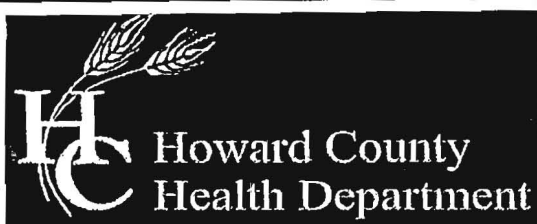
Gross Alpha 73.4
Error +/- 5.8
MDL 1.5
EPA Method 900.0
Prep Date 02/18/15
Prep Time 06:03
Analysis Date 02/19/15
Analysis Time 06:38
Analyst MJN

Gross Beta 73.9
Error +/- 3.3
MDL 1.9
EPA Method 900.0
Prep Date 02/18/15
Prep Time 06:03
Analysis Date 02/19/15
Analysis Time 06:38
Analyst MJN

Radium 226 10.4
Error +/- 0.5
MDL 0.1
EPA Method 903.1
Prep Date 02/18/15
Prep Time 07:55
Analysis Date 02/25/15
Analysis Time 09:55
Analyst MJN

Radium 228 6.1
Error +/- 0.9
MDL 0.8
EPA Method Ra-05
Prep Date 02/18/15
Prep Time 07:55
Analysis Date 02/25/15
Analysis Time 10:22
Analyst SN

Units pCi/l pCi/l



Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

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Twitter: HowardCoHealthDep

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

AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and Tianlong Wang - Xue xian Zeng ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 11028 Blains Drive, Clarksville Md and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 35, Block # 19, Parcel # 310, Deed Reference # 15765/325 and Tax Account # 05-597771 ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have and individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit ~~4095-2277~~ 4095-2277 that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi/L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

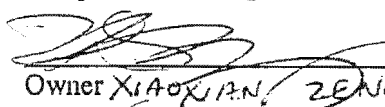
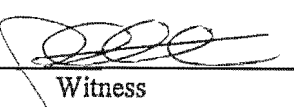
NOW THEREFORE, the parties have agreed to the following terms and conditions:

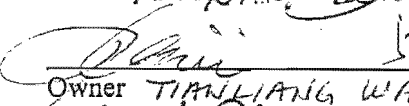
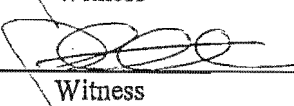
1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department


shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).

3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warranty or guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department and the Owner. There are no additional terms other than as contained in this Agreement. This Agreement may not be modified except in writing signed by each of the parties or their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

 5-13-2015  5/13/15
Owner XIAOXIAN ZENG Date Witness Date

 5-13-2015  5/13/15
Owner TIANLIANG WANG Date Witness Date

 5/19/2015
Howard County Health Department Date