

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS) **FILL IN THIS FORM COMPLETELY PLEASE TYPE** COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED (MM/DD/YY) **12/29/17** DATE WELL COMPLETED (MM/DD/YY) **12-1-17** Depth of Well **160** (TO NEAREST FOOT) PERMIT NO. FROM "PERMIT TO DRILL WELL" **OK 12/29/17 SC HO 17-0192**

OWNER **Williamsburg Group** WELL SITE ADDRESS **Scaggsville RD** TOWN **Highland** SUBDIVISION **Estates of Schooly Mill** SECTION **7** LOT **7**

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 | |
| Brown sandstone | 0 | 8 | |
| Gray schist | 8 | 90 | |
| Brown | 90 | 95 | ✓ |
| Gray schist | 95 | 150 | |
| Brown | 150 | 153 | ✓ |
| Gray schist | 153 | 160 | |

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) **Y** **N**
 TYPE OF GROUTING MATERIAL (Circle one) CEMENT **CM** BENTONITE CLAY **BC**
 NO. OF BAGS **19** NO. OF POUNDS **1780**
 GALLONS OF WATER **114**
 DEPTH OF GROUT SEAL (to nearest foot) from **0** ft. to **50** ft.
 (enter 0 if from surface)

CASING RECORD

casings types insert appropriate code below **ST** **CO** **PL** **OT**
 MAIN CASING TYPE **ST** Nominal diameter top (main) casing (nearest inch) **06** Total depth of main casing (nearest foot) **52**
 OTHER CASING (if used) diameter inch depth (feet) from to

| SCREEN TYPE | DEPTH (nearest ft.) |
|-------------|---------------------|
| HO | 52 |
| | 160 |

SCREEN RECORD **ST** **BR** **HO** **PL** **OT**
 screen type or open hole (insert appropriate code below) **ST** **BR** **HO** **PL** **OT**
 STEEL BRASS BRONZE PLASTIC OPEN HOLE OTHER

NUMBER OF UNSUCCESSFUL WELLS: **0**
 WELL HYDROFRACTURED **Y** **N**

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

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

DRILLERS LIC. NO. **M S D 005**
 DRILLERS SIGNATURE **[Signature]**
 LIC. NO. **D**

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

C 2 DEPTH (nearest ft.)

| | | | |
|----|-----------|-----------|------------|
| 1 | HO | 52 | 160 |
| 8 | | | |
| 9 | | | |
| 11 | | | |
| 15 | | | |
| 17 | | | |
| 21 | | | |
| 23 | | | |
| 24 | | | |
| 26 | | | |
| 30 | | | |
| 32 | | | |
| 36 | | | |
| 38 | | | |
| 39 | | | |
| 41 | | | |
| 45 | | | |
| 47 | | | |
| 51 | | | |

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 **66**

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 T _____ (E.R.O.S.) W Q _____
 70 _____ 72 _____ 74 75 76 _____
 TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 PUMPING TEST

HOURS PUMPED (nearest hour) **3**
 PUMPING RATE (gal. per min.) **12.**
 METHOD USED TO MEASURE PUMPING RATE **1 gal**
 WATER LEVEL (distance from land surface)
 BEFORE PUMPING **24** ft.
 WHEN PUMPING **31** 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. **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 } **01** (nearest foot)
 LAND SURFACE **-** below }

LATITUDE **39.1684723**
 LONGITUDE **76.9532318**
 (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. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or state law.

B 1 SEQUENCE NO. (MDE USE ONLY) **56872** STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type **501520-F** STATE PERMIT NUMBER **Ho-17-0192**
70: fill in this form completely 79

OWNER INFORMATION
 Date Received (APA) **09/11/17**
8 MM DD YY 13
 15 Last Name **Williamsburg Group** Owner First Name **William**
 36 Street or RFD **5485 Harpers Farm RD**
 57 Town **Columbia, Md** 70 State **21044** 72 Zip 76

B 3 LOCATION OF WELL
 8 COUNTY **Howard** 21
 23 SUBDIVISION **Estates of Schooly Mill** 42
 SECTION **44** 46 LOT **7** 48 50
 52 NEAREST TOWN **Highland** 71

DRILLER INFORMATION
 Driller's Name **Allen Coptw** M **5** D **009** License No. 81
 Firm Name **Eagles Well Drilling**
 Address **P.O. Box 202 Woodbine Md 21797**
 Signature **Allen Coptw** Date **9-8-17**

B 4 SOURCES OF DRILLING WATER
Well water
 11 STREET ADDRESS **Scaggsville RD** 38
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH WEST EAST SOUTH
 34 **350** 37 DISTANCE FROM ROAD FT
 ENTER FT OR MI 38 39
 TAX MAP: **40** BLK: **11** PARCEL **93**

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)
 DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 INDUSTRIAL, COMMERCIAL, DEWATERING
 PUBLIC WATER SUPPLY WELL
 TEST, OBSERVATION, MONITORING
 OPEN LOOP GEOTHERMAL
 CLOSED LOOP GEOTHERMAL

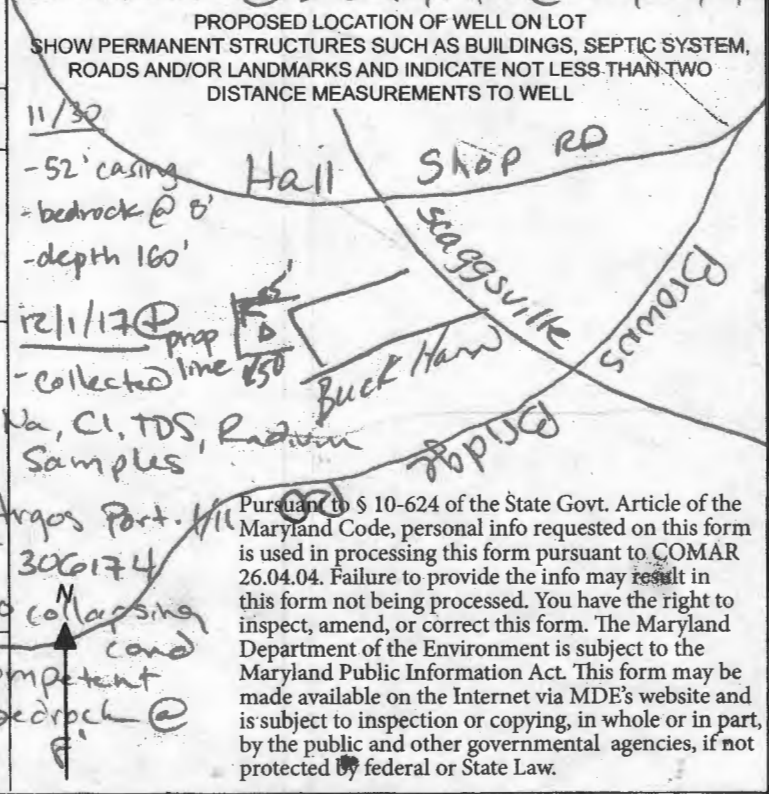
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
 COUNTY NAME **Howard** COUNTY NO. **(13)**
 STATE SIGNATURE _____ INSERT S _____ 41
 DATE ISSUED **10/10/17** CO SIGNATURE **Sgt. C.H.** EXP. DATE **10/10/18**
43 MM DD YY 48

APPROXIMATE DEPTH OF WELL **300** FEET
 APPROXIMATE DIAMETER OF WELL **6** INCH NEAREST INCH

METHOD OF DRILLING (circle one)
 BORED (or Augered) AIR-ROTary JETTED AIR-PERCussion ROTARY (Hydraulic Rotary) Jetted & DRIVEN
 30 CABLE REVERSE-ROTary DRIVE-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
 THIS WELL WILL NOT REPLACE AN EXISTING WELL
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 THIS WELL WILL DEEPEM AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)
 APPROX. PERMIT NUMBER _____ G _____
 PERMIT No. **HO-17-0192**
70 71 72 73 74 75 76 77 78 79



SPECIAL CONDITIONS
 NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.
 See attached memo Drill site #2 first.

Argos Portland Cement Type 1/11

Lot # 306174

No collapsing conditions Reported

Competent bedrock ~ 8'

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2643**

Information Form for the Installation of the Well Pump, Pileless Adapter, and Sump Pumping

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: Fogles Well Pump + Water Treatment, LLC Telephone #: 410 795 5670
Address: 580 Obrecht Rd.
Sykesville, MD 21784

(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 C FOGLE License #: MSD22

*A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.

Name of Property Owner: Williamsburg Homes Telephone #: _____
Subdivision: Est @ Schooley Hill Lot #: 7 Well Tag #: HO-17-0192
Site Address: 7421 Haven Ct
Highland, MD 20777

| <u>Submersible Pump Data</u> | <u>Pileless Adapter</u> | <u>Well Cap and Electric Conduit</u> |
|---|---|---------------------------------------|
| Make: <u>Sundfos</u> | Make: <u>Campbell</u> | Two piece watertight cap: <u>YES</u> |
| Model #: <u>1536EOT-180</u> | Model #: <u>N/A</u> | Screened, vented well cap: <u>YES</u> |
| Pump Capacity: <u>7</u> GPM | Depth: <u>36"</u> (36" min) | Cap secured to casing: <u>YES</u> |
| Well Yield: <u>12</u> GPM | NSE/WSC approved: <u>YES</u> | Conduit min 1" B.G.: <u>YES</u> |
| Depth of well encountered at time of pump installation: <u>110</u> (feet) | Conduit secured to well cap: <u>YES</u> | |
| If pump capacity exceeds well yield, a low water cutoff switch is required by NSPC 1990 Section 17.2.4 | | |
| Temperature sensors, cable guards, or other acceptable method used - Must circle one | | |
| Safety rope, if used, attached to hoist rope adapter or other acceptable method inside of well casing: <u>N/A</u> | | |

| <u>Fixture to house</u> | <u>House Connection</u> |
|--|--|
| Type: <u>1" poly pipe</u> | PVC sleeve to undisturbed soil at wall penetration: <u>YES</u> |
| PST: <u>26" (25 psi min)</u> | Length of sleeve (5' minimum from foundation): <u>6'</u> |
| Depth of supply line: <u>36" (36" min)</u> | Sleeve sealed properly: <u>YES</u> |

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: [Signature] date: 5/8/2019

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

Date Insp Requested: 05/08/2019 Date Insp. Approved: 05/08/2019 Inspector: [Signature]

| | | | |
|---|----------|------------|-----------------|
| Inspection Date: Pileless adapter watertight & water supply line at least 36" below grade | <u>✓</u> | <u>36"</u> | <u>5/8/2019</u> |
| Two piece cap installed and attached to casing securely | <u>✓</u> | <u>32"</u> | <u>5/8/2019</u> |
| Elec. conduit extends at least 18" below grade/attached to cap properly | <u>✓</u> | <u>12"</u> | <u>5/8/2019</u> |
| Safety rope not outside of well cap/casing | <u>✓</u> | | |
| Correct well tag attached properly and casing 8" above finished grade | <u>✓</u> | | |
| Water supply line sleeved adequately at house connection | <u>✓</u> | | |
| Adequate grout observed below pileless adapter | <u>✓</u> | | |

Ex House
5/8/2019
2.5'

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – March 24, 2019

September 24, 2019

Homeowner
7421 Haven Court
Highland, MD 20777

RE: Estates @ Schooley Mill, Lot 7
7421 Haven Court
Building Permit: B18003745
Well Permit: HO-17-0192

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 **9/24/2019**. Final approval of the well line connection to the dwelling was granted on **5/8/2019**. The well construction was completed on **12/1/2017**. Water samples were collected on **7/31/2019**.

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 **12/1/2017**. Results showed a Gross Alpha level of **8.1 ± 2.2 pCi/L** and **Gross Beta** level of **13.0 ± 2.2 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-17-0192. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

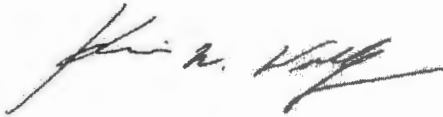
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will 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.**

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

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 #: 131762 Account #: 4470
Reference: Estates at Schooley Mill Lot 7 Company: Williamsburg Homes LLC
Location: 7421 Haven Court Requested By: Bill McBride
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 7/31/2019 1245 Site: Pressure Tank
Date/Time Rec'd: 7/31/2019 1500 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 5.8
Collected By: J. Yeager 6176JY Well #: HO-17-0192

| PARAMETER | UNITS | REFERENCE | METHOD | DATE/TIME | |
|--------------------------------|-------|-------------|--------|--------------------|-----------------------|
| Bacteria, Coliform, Total, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223B | 8/1/2019 / 1000 / RER |
| Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223B | 8/1/2019 / 1000 / RER |
| Nitrate | 3.75 | mg/L | 10 | 601 | 8/1/2019 / 0930 / CRS |
| Turbidity | 1.78 | NTU | <10 | SM20 2130B | 8/1/2019 / 1020 / CRS |
| Sand | NS | mg/L | 5 | Visual/Gravimetric | 8/1/2019 / 1020 / 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 # : 18003745

Date Reported: 8/1/2019



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

HO-17-0192

INFORMATION GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD
BALTIMORE MARYLAND 21230

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DRN. gt

CHK.

WELL SITES APPROVED
 10/10/17 SC
 Well sites staked by GLW
 ESTATES AT SCHOOLEY MILL
 Drill site **LOT 7 #2** FIRST
 PREPARED FOR :
 WILLIAMSBURG GROUP, LLC
 5485 HARPERS FARM RD., SUITE 200
 COLUMBIA, MD 21044
 ATTN.: BOB CORBETT
 410-997-8800

| | |
|--------------|-----------------|
| G. L. W. No. | 14067 |
| ZONING | RR-DEO |
| TAX MAP/GRID | 40-11 |
| DATE | SEPTEMBER, 2017 |
| SCALE | 1"=50' |
| SHEET | 1 OF 1 |

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

April 20, 2018

Williamsburg Group LLC
5485 Harpers Farm Road
Columbia, Maryland 21044

RE: Estates at Schooley Mill Lot 7
Scaggsville Road
Well Tag: HO - 17 - 0192

Dear Williamsburg Group:

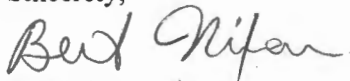
A sample was collected during a yield test on December 1, 2017 and submitted to the Maryland Department of Health Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle 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 8.1 ± 2.2 picocuries/liter (pCi/L), while the **Gross Beta** level was 13.0 ± 2.2 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 standard 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 well water supply **is within** EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. Please **note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions.

Sincerely,



Bert Nixon, Director
Bureau of Environmental Health

Enclosure
cc: Property file

SEND REPORT TO:

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

Lab No. 681-37E-45

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

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Est @ Schooley Mill - Lot 7

County: HOWARD

Sample Source: Seaggsville RD - HIGHLAND

Location: HO-17-092
(Well no., lab sink, sample tap, etc.)

RADIUM
~~Radon-222~~

Bottle A HO-17-092A
Bottle B _____

Radon-222 Field Blank

Bottle A _____
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: 4 F

Federal Project:

Collector: CABANUK, J

Telephone No.: 410 313 2643

Date Collected: 12/01/2017

Time Collected: 10:40 a.m. p.m.

Field pH: 6.0

Field Chlorine: Negative

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: Sample collected at yield

| TEST | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|---|----------|---------|------------|-----------------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> Gross Alpha | 4000 | 1097 | EPA 900.0 | 8.1 ± 2.2 | 12/5/17 | JJ | 12/7/17 |
| <input checked="" type="checkbox"/> Gross Beta | 4100 | 1097 | EPA 900.0 | 13.0 ± 2.2 | 12/5/17 | JJ | 12/7/17 |
| <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: 12/4/17
Data Release Signature: _____

Received By: [Signature]
Date: 12-07-17

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|--------------------------|--------------------------|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sample pH <2.0? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Received within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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

SEND REPORT TO:

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

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Est @ Schooley Mill Lot 7

County: HOWARD

Sample Source: Scaggsville RD - Highland

Location: HO-17-0192
(Well no., lab sink, sample tap, etc.)

~~Radon-222~~

Bottle A HOJCO19ZPA

Radon-222 Field Blank

Bottle A _____

Radium

Bottle B _____

Bottle B _____

County 13

Blank

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: 4 F

Federal Project: _____

Collector: CABAHUG, J

Telephone No.: 410 313 2643

Date Collected: 12/01/2017

Time Collected: 16:00 p.m.

Field pH: 6.0

Field Chlorine: Negative

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 | 1096 | EPA900.0 | 2.0 | 12/5/17 | JJ | 12/7/17 |
| <input checked="" type="checkbox"/> | Gross Beta | 4100 | 1096 | EPA900.0 | 4.8 ± 1.8 | 12/5/17 | JJ | 12/7/17 |
| <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: 12/4/17

Received By: [Signature]

Data Release Signature: [Signature]

Date: 12-07-17

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|-------------------------------------|-----|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Sample pH < 2.0? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Received within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |

Preserved at lab 14:00

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

Invoice



**Howard County
Health Department**

Bureau of Environmental Health
Attn: Bert Nixon, Director

DATE: DECEMBER 18, 2017
DATES OF SERVICE: DECEMBER 1 & 4, 2017
INVOICE #: 2017-012

8930 Stanford Boulevard, Columbia, MD 21045
Phone 410-313-2640 Fax 410-313-2648
www.hchealth.org

BILL Williamsburg Group
TO 5485 Harpers Farm Road
Columbia, Maryland 21044

COMMENTS Payment due upon receipt. Letter and results will be released upon receipt of payment.

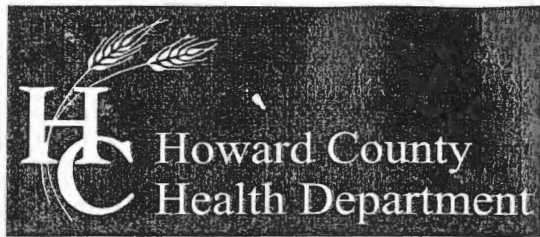
| DATE | DESCRIPTION | BALANCE | AMOUNT |
|----------------------|---|---------|-------------------|
| 12/01/17 12/04/17 | Gross alpha/beta testing performed for Lots 7 and 8, Estates at Schooley Mill HO - 17 - 0192 HO -17 -0193 | | \$90.00 |
| | | | AMOUNT DUE |
| | | | \$90.00 |

Please detach and return with payment.

| REMITTANCE | |
|------------------|---------------------------------------|
| Invoice # | 2017-012 |
| Site Information | Estates at Schooley Mill Lots 7 and 8 |
| Amount Due | \$90.00 |

*Receipt 62957
4/16/18*

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



Bureau of Environmental Health

8930 Stanford Blvd, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org

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

MEMORANDUM

DATE: October 10, 2017

TO: Allen Compten (MSD 009)
Fogle's Well Drilling

FROM: Sarah Collins, L.E.H.S. SEC
Howard County Health Department

RE: Estates at Schooley Mill
Well Permits

Please note the following special conditions for the wells at the Estates at Schooley Mill:

1. All wells require 50' of steel casing or 10' into competent bedrock,* whichever is deeper.
2. All wells require a radium sample at the yield test.
3. Wells on lots 1 and 2 require volatile organic compounds (VOCs) sampling at the yield test.
4. Wells on lots 1, 3, 4, 7, and 9 require sodium, chloride, and total dissolved solids (TDS) sampling at the yield test.

Cc: File

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

February 20, 2018

Williamsburg Group, LLC
5485 Harpers Farm Road
Columbia, MD 21044

Re: Water sample results for Estates at Schooley Mill – Lot 7

Dear Homeowner,


The Health Department received results from the testing for sodium, chloride, and total dissolved solids (TDS) from the well on this lot.

Elevated sodium levels in drinking water may affect individuals on low-salt diets. The action level for sodium is 20 milligrams per liter (mg/L); **sodium from the well measured 12.41 mg/L pre-treatment.**

Chloride and TDS are both considered secondary contaminants, meaning high concentrations may affect taste, color, odor, or corrosive properties of water but present no risk to health. The secondary maximum contaminant level for chloride is 250 mg/L; **chloride from the well measured 58 mg/L.** The secondary maximum contaminant level for TDS is 500 mg/L; **TDS from the well measured 222 mg/L.**

Feel free contact me at the number or email below with any questions regarding the results of water sampling.

Sincerely,



Sarah Collins, L.E.H.S.
Howard County Health Department
Well & Septic Program
SCollins@howardcountymd.gov
410-313-6287

*Cc: Community Hygiene Program
File*

Send Report To:

State of Maryland
DHMH - Laboratories Administration

Division of Environmental Sciences

TRACE METALS LABORATORY

1770 Ashland Avenue
Baltimore, Maryland 21205

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



E18002146001

Received: 12/04/2017

Metals

HOJC0192Na

LABORATORY ANALYSIS REQUEST

Do not write above this line

Please Print

Sample ID No: HOJC0192Na Site Name: H-17-0192 County: HOWARD

Sample Source: Estates @ Schooley Mill Lot 7 Collector: CADANUG
Street Town or City Name

Date Collected: 12/01/2017 Time Collected: 10:40 p.m. Phone #: 410 313 2643

Sample Preserved By: Field ESRL WMRL Central Lab
Preservative Used: HNO₃ mL pH: < 2

Sample Type: Drinking Water Landfill Source (Raw Water) Liquid
Data Category: Community Stream Distribution (Treated) Solid
Code: HF Non-Community Sediment Other
 Private

Specify Program: SDWA NPDES CWA RCRA Consumer Products Other

Type of Sample Preparation: Total Metals Total Metals TCLP Dissolved Metals
(field preparation required)

Remarks: Sample collected at yield

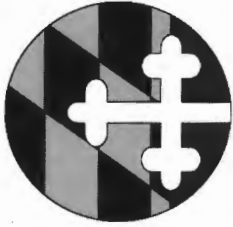
| ✓ | Element | Lab Use | ✓ | Element | Lab Use | ✓ | Element | Lab Use |
|---|----------------|-----------|---|-----------------|---------|---|--------------|---------|
| | Antimony (Sb) | | | Aluminum (Al) | | | Uranium (U) | |
| | Arsenic (As) | | | Calcium (Ca) | | | Vanadium (V) | |
| | Barium (Ba) | | | Cobalt (Co) | | | Zinc (Zn) | |
| | Beryllium (Be) | | | Copper (Cu) | | | | |
| | Cadmium (Cd) | | | Iron (Fe) | | | | |
| | Chromium (Cr) | | | Lead (Pb) | | | | |
| | Mercury (Hg) | | | Magnesium (Mg) | | | | |
| | Nickel (Ni) | | | Manganese (Mn) | | | | |
| | Selenium (Se) | | | Molybdenum (Mo) | | | | |
| ✓ | Sodium (Na) | <u>SH</u> | | Potassium (K) | | | | |
| | Thallium (Tl) | | | Silver (Ag) | | | | |

Lab Supervisor: _____

Date Reported: ____/____/____

Phone: (443) 681 - 4596

Fax: (443) 681 - 4507



State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
TRACE METALS LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project No: E18002146 Date Coll.:12/01/2017 Date Received:12/04/2017 Submitted By: Cabahug

Field ID: HOJC0192Na
Lab No.: E18002146001

| <u>Method</u> | <u>Element</u> | <u>Result</u> | <u>Units</u> | <u>Date Analyzed</u> |
|---------------|----------------|---------------|--------------|----------------------|
| EPA 200.7 | Sodium | 12.41 | ppm | 12/06/2017 |

Comments:

Approved by: Yungtao Chai

Approval date: 12/07/2017

**The following methods are included in our A2LA Scope of Accreditation: EPA 200.7, EPA 200.8, EPA 245.1.

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (410) 767-6944 and arrange for return or destruction.



State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project NoE18002147 Date Coll. 12/01/2017 Date Received 12/04/2017 Submitted By: J. Cabahug

Field ID: HOJC0192TD
Lab No.: E18002147001

| <u>Analyte</u> | <u>Method</u> | <u>Result</u> | <u>Units</u> | <u>Date Analyzed</u> |
|------------------------|---------------|---------------|--------------|----------------------|
| Chloride | SM 4500-Cl E | 58 | mg/L | 12/11/2017 |
| Total Dissolved Solids | SM 2540C | 222 | mg/L | 12/07/2017 |

Comments:

Approved by:

Shahla Aneli

Approval date: 12/14/2017

*The following methods are included in our A2LA Scope of Accreditation: EPA150.1, EPA 353.2, EPA 375.2, SM4500F C, SM 4500-CN G & QCM-CN, QCM-CN.

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (410) 767-6190 and arrange for return or destruction.

Hinkle
Property

FILE INQUIRY NOTES

Lot 7

DATE RESULTS OF REVIEW FOR FILE

7/27/15 The Well installed
on this lot must
have steel casing
installed to at least
50 feet depth, OR
10 feet into competent
bedrock, WHICHEVER
IS DEEPER.

10/11/17 Discussed special conditions on well permit with Allen Compton
via phone. (SC)

R Buckner

7/27/15 The Septic System on
this Lot must include
a BAT unit and all drain fields
(any)
must have LPD design or
equivalent

R Buckner