

C1 30394

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

COUNTY NUMBER

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM 03 DD 20 YY 15

MM 01 DD 19 YY 15

22 350 26 (TO NEAREST FOOT)

OK 3/27/15SC HO-19-0184

OWNER Ward Maura WELL SITE ADDRESS 10218 Donleigh Dr. TOWN Columbia SUBDIVISION Donleigh St SECTION LOT 5

WELL LOG Not required for driven wells

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

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Topsoil-Grass, Silt: Brn. Tan, f. sand w/ some clay, Sl. moist, Weath Rock, Lt. Grey Mod. hard, Bedrock, Quartz Monzonite, Light-Dark Grey V. hard, and note: Installed 1.25" x 350' closed loop, have sdr-u U-bend

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 17 NO. OF POUNDS 850 GALLONS OF WATER 323 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 350 ft.

CASING RECORD casing types insert appropriate code below MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)

OTHER CASING (if used) diameter inch depth (feet) from to

SCREEN RECORD screen type or open hole insert appropriate code below STEEL BR HO PL OT

DEPTH (nearest ft.) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO 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. 1 M W D 572 1 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D 1

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 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 PUMPING TEST

HOURS PUMPED (nearest hour) N/A PUMPING RATE (gal. per min.) N/A METHOD USED TO MEASURE PUMPING RATE WATER LEVEL (distance from land surface) BEFORE PUMPING WHEN PUMPING TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other J jet S submersible

PUMP INSTALLED DRILLER INSTALLED PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29

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

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE -3 (nearest foot)

LATITUDE 39.110474 LONGITUDE 76.528152 (DEFAULT COORD. WGS 84)

NOTES: #1 Grab loop 29 gal x 17 bags = 493 gal / 350' = 1.41 gal/ft (2) 1.25" x 350' closed loop U-bend

B 1 36503
1 2 3 6

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
555387 please type

STATE PERMIT NUMBER

HO-14-0184
70 fill in this form completely 79

Date Received (APA)

010413
8 MM DD YY 13

OWNER INFORMATION

Ward Maura
15 Last Name Owner First Name 34
10218 Donleigh Drive
36 Street or RFD 55
Columbia Md. 21046
57 Town 70 State 72 Zip 76

B 3

LOCATION OF WELL

Howard
8 COUNTY 21
Donleigh S1
23 SUBDIVISION 42
SECTION 44 46 LOT 5
48 50
Columbia
52 NEAREST TOWN 71

DRILLER INFORMATION

Samuel A. Connelly MWD 572
Driller's Name 76 License No. 81
Connelly & Associates, Inc.
Firm Name
260 Interstate Ct. Frederick MD
Address 21704
Samuel A. Connelly 12/22/14
Signature Date

B 4

SOURCES OF DRILLING WATER

1. Public
2.
3.

10218 Donleigh Dr.
11 STREET ADDRESS 30
ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)
NORTH
WEST EAST
SOUTH
34 20 37
35
DISTANCE FROM ROAD FT
ENTER FT OR MI 38 39

TAX MAP: 0042 BLK: C PARCEL 0192

B 2

WELL INFORMATION

APPROX. PUMPING RATE
(GAL. PER MIN.) 8 12
AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY) 14 20

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

Howard 13
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 3/20/15
43 MM DD YY 48 CO SIGNATURE 3/20/16
EXP. DATE

APPROXIMATE DEPTH OF WELL 350 FEET
24 28

APPROXIMATE DIAMETER OF WELL 6 INCH
NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
37 CABLE REVERSE-ROTary DRIVE-POINT
other

REPLACEMENT OR 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

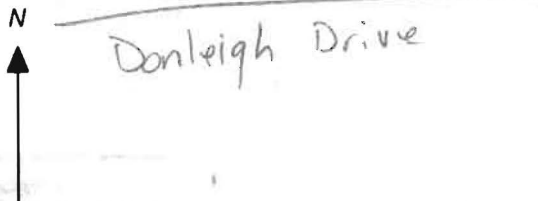
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED
(IF AVAILABLE) 41 52

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

APPROP. PERMIT NUMBER G

PERMIT No. HO-14-0184
70 71 72 73 74 75 76 77 78 79

PROPOSED LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM,
ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO
DISTANCE MEASUREMENTS TO WELL



SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Grou. from bottom to top. Notify health dept. of grout date + time

C 1 30393

SEQUENCE NO. (MDE USE ONLY)

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(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

DATE WELL COMPLETED MM DD YY

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER Ward, Maura; WELL SITE ADDRESS 10218 Donleigh Dr.; TOWN Columbia; SUBDIVISION Donleigh S2; SECTION; LOT 5

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Topsoil-Grass, Silt, Sand with gravel, Frag. Sl. moist, Weath. Rock, Lt. Grey Mod. Hard, Bedrock, Quartz Monzonite, Lt. drk. Grey V. hard.

GROUTING RECORD: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CEMENT CM, BENTONITE CLAY BC), NO. OF BAGS 16, NO. OF POUNDS 800, GALLONS OF WATER 304, DEPTH OF GROUT SEAL 350 ft.

CASING RECORD: MAIN CASING TYPE (ST STEEL), Nominal diameter top (main) casing (nearest inch), Total depth of main casing (nearest foot).

OTHER CASING (if used) table with columns: diameter inch, depth (feet) from, to.

SCREEN RECORD: screen type or open hole (ST STEEL, BR BRASS, HO OPEN HOLE, PL PLASTIC, OT OTHER).

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y)

- CIRCLE APPROPRIATE LETTER: A WELL WAS ABANDONED AND SEALED, 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...

DRILLERS LIC. NO. 1 MWD 572; 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)

DEPTH (nearest ft.) table with columns: 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 15, 17, 21, 23, 24, 26, 30, 32, 36, 38, 39, 41, 45, 47, 51. Includes SLOT SIZE and DIAMETER OF SCREEN.

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

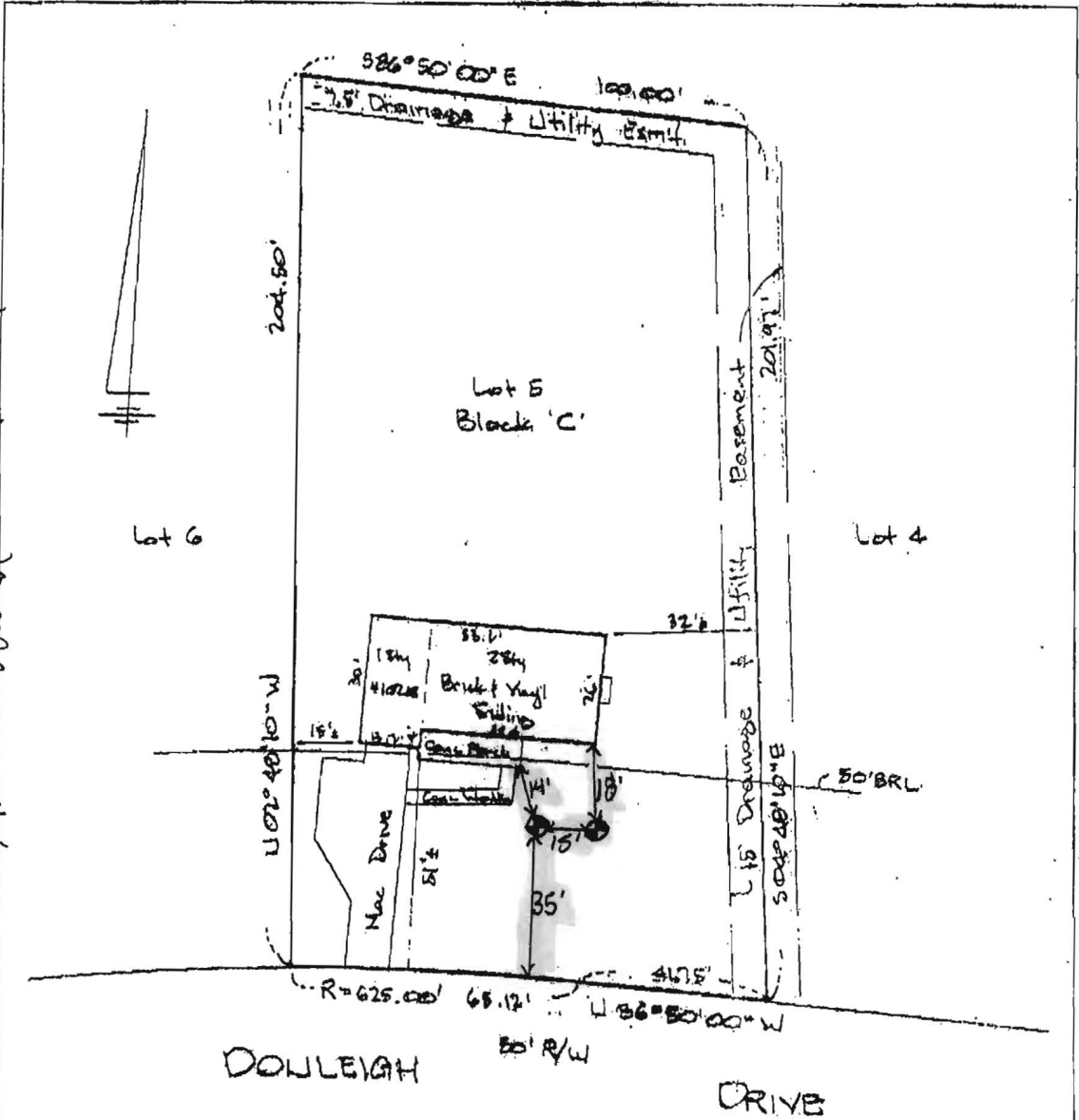
PUMPING TEST: HOURS PUMPED (nearest hour) N/A, PUMPING RATE (gal. per min.) N/A, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL (distance from land surface) BEFORE PUMPING N/A, WHEN PUMPING N/A, TYPE OF PUMP USED (for test) C centrifugal.

PUMP INSTALLED: DRILLER INSTALLED PUMP YES NO, IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS, TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29, CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31-35, PUMP HORSE POWER 37-41, PUMP COLUMN LENGTH (nearest ft.) 43-47, CASING HEIGHT (circle appropriate box and enter casing height) -3 (nearest foot).

LATITUDE 39.110456, LONGITUDE 76.520148 (DEFAULT COORD. WGS 84)

NOTES: 29 gal x 16 bags = 464 gal; #2 Gvo loop 350'; (1) 1.25" x 350' closed loop U-bonds

Planned by [unclear]



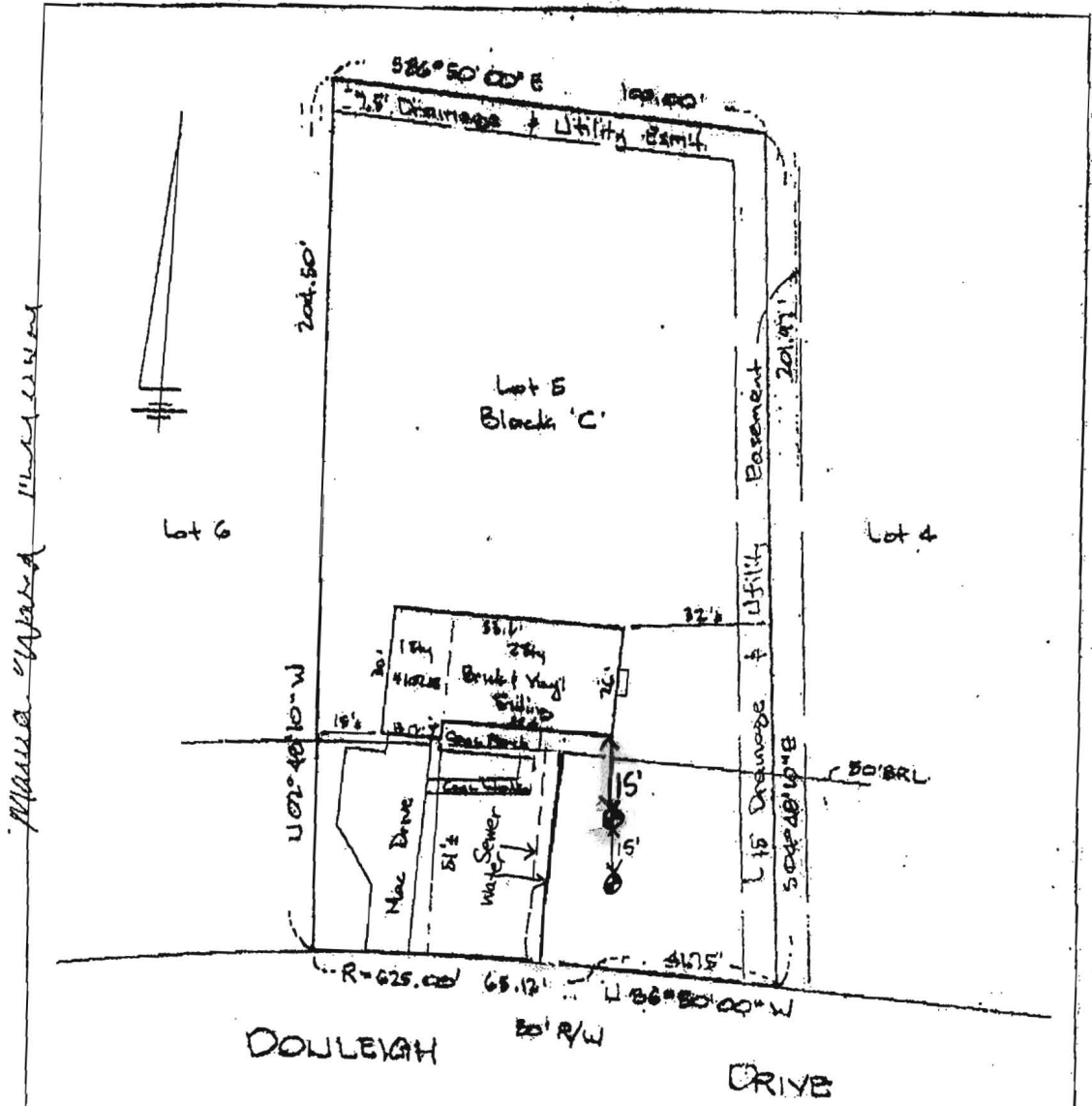
THE LOT SHOWN HEREON IS IN FLOOD ZONE C PER F.E.M.A. FLOOD INSURANCE RATE MAP PANEL# 240044-0024.B

The plat is of benefit to consumer only insofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing, or refinancing. The plat is not to be relied upon for the establishment or location of fences, garages, buildings, or other existing or future improvements. The plat does not provide for the accurate identification of property boundary lines, but such identification may not be required for the transfer of title or securing financing or refinancing. The plat contains a tolerance of accuracy of two feet, more or less.



<p>Ertel Associates, Inc. 8425 Hallmark Circle Baltimore, Maryland 21234 Phone: 410-882-0989 + Fax: 410-882-0842</p>	<p>LOCATION DRAWING #1921B DONLEIGH DRIVE, LOT 5, Block 'C' 1st SECTION ONE, DONLEIGH HOWARD CO., MD. PART BOOK RHTM 6/90 DATE: 9/12/18 SCALE: 1"=40' FILE: MD11454</p>
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Received 3/4/15



THE LOT SHOWN HEREON IS IN FLOOD
 ZONE C PER F.E.M.A. FLOOD INSURANCE
 RATE MAP PANEL # 240044-0034B

The plat is of benefit to consumer only insofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing, or refinancing. The plat is not to be relied upon for the establishment or location of fences, garages, buildings, or other existing or future improvements. The plat does not provide for the accurate identification of property boundary lines, but such identification may not be required for the transfer of title or securing financing or refinancing. The plat contains a tolerance of accuracy of two feet, more or less.



Ertel Associates, Inc.

8425 Hallmark Circle
 Baltimore, Maryland 21234
 Phone: 410-882-0989 • Fax: 410-882-0842

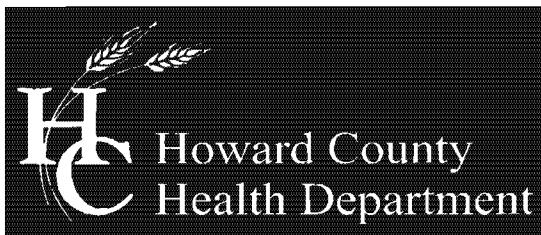
LOCATION DRAWING

10218 DONLEIGH DRIVE; LOT 5, Block 'C'
 SECTION ONE, DONLEIGH
 HOWARD CO., MD. PLAT BOOK RHM 6/90

DATE: 9/12/13 SCALE: 1"=40' FILE: MD11454

1/21/15 2:15pm
10218 Donleigh Dr.
Geothermal wells





Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

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

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: [HowardCoHealthDep](https://twitter.com/HowardCoHealthDep)

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

NOTICE OF VIOLATION

**SENT VIA CERTIFIED MAIL: 7004 1160 0002 5226
RETURN RECEIPT REQUESTED**

January 26, 2015

Samuel Connelly (MWD572)
Connelly & Associates
260 Interstate Court
Frederick, MD 21704

RE: **Drilling without a well permit**
10218 Donleigh Drive
Columbia, MD 21046
Tax Map 42, Grid 01, Parcel 192

Dear Connelly & Associates:

On January 21, 2015, I conducted a site inspection at the above property for proposed drilling locations for two geothermal wells. During this site inspection, I noticed two geothermal loops extending above the ground. The geothermal loops were located in the front yard of the property, 15 and 30 feet away from the house and perpendicular with Donleigh Drive.

I returned to the office and discussed this with my supervisor, Kevin Wolf, and researched the Howard County Health Department well records and the property file. I confirmed that the final review for the geothermal well permit at 10218 Donleigh Drive was not completed and the permit was never released.

On January 23, 2015, I spoke with Samuel Connelly over the phone. He admitted to drilling the two geothermal wells at 10218 Donleigh Drive. Mr. Connelly said that the drilling occurred without a permit as a result of an administrative error at Connelly & Associates.

Drilling without a permit violates several policies set forth in the *Code of Maryland Regulations (COMAR)*. *COMAR 26.04.04.05 Issuance of Well Construction Permits* states:

A. A well may not be constructed until the Approving Authority has issued a permit to drill the well, except as provided in Regulation .06 of this chapter.

C. Except as provided in Regulation .06 of this chapter, the Approving Authority may issue a well construction permit after receipt and review of a completed application submitted in accordance with this chapter.

Additionally, *COMAR 26.04.04.14B(2)* says: *The permittee shall notify the Approving Authority one business day prior to commencing well drilling activities of geothermal wells.* The Health Department received no notification of drilling at 10218 Donleigh Drive.

On January 22, 2015, Mr. John Boris with the Maryland Department of the Environment Wastewater Permits Program was notified of these actions. After comparing this information with his own investigation on this matter, Mr. Boris stated that this is in fact a violation of *COMAR* sections *26.04.04.05* and *26.04.04.14B(2)*.

This Notice of Violation is issued based on the referenced sections of *COMAR*. Given these findings, the next step will be a meeting between Mr. Connelly, Mr. Boris and the Health Department. This meeting will discuss the situation in full detail including elucidations, comments and compliance. You will have 15 days of receipt of this notice to contact the Health Department so that we can schedule this meeting with you.

If you have any questions regarding this letter, please contact me at the Bureau of Environmental Health at 410-313-1771.

Sincerely,



Sarah Collins
Environmental Health Specialist
Howard County Health Department
Well and Septic Program

Cc: Executive Secretary, Board of Health
Department of Inspections, Licenses and Permits, Avis Corbin
Maryland Department of the Environment, John Boris
Executive Director, Maryland Board of Well Drillers, Willie Everett
Homeowner, Maura Ward
File



Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

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

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Twitter: HowardCoHealthDep

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

February 19, 2015

Samuel Connelly (MWD572)
Connelly & Associates
260 Interstate Court
Frederick, MD 21704

RE: **Drilling without a well permit**
10218 Donleigh Drive
Columbia, MD 21046
Tax Map 42, Grid 01, Parcel 192

Dear Connelly & Associates:

As a follow-up to the Notice of Violation issued to you January 26, 2015, the following actions were discussed at a meeting on February 18, 2015:

- 1. Provide us with a revised well site plan showing the location of the drilled geo bores and all pertinent features on and around the subject property. Features include (but not limited to) distances to house, right-of-ways, property lines, all wells and septic systems (if applicable), location of public water and sewer line, etc.**
- 2. Submit completion reports for each geo bore that have been completed in its entirety with a detailed well log description and GPS coordinates.**

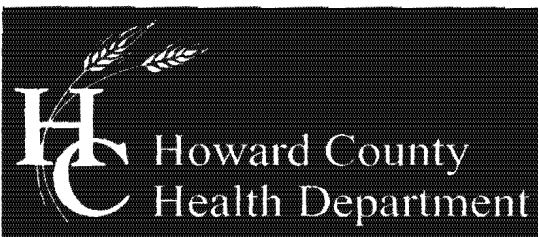
If the submitted information is found acceptable by the Maryland Department of the Environment (MDE), a final decision and order from the Howard County Health Department (HCHD) will be provided and the work shall be completed within fifteen (15) days of receipt of the written notification. This will include a completed well permit application along with a well identification tag which will be given to the owner. If the information submitted is not sufficient to correct the violation, MDE or the HCHD may require abandonment and sealing of the wells (*COMAR 26.04.04.34*).

Sincerely,

A handwritten signature in cursive script, appearing to read 'Sarah Collins', is located below the word 'Sincerely,'.

Sarah Collins
Environmental Health Specialist
Howard County Health Department
Well and Septic Program

Cc: Executive Secretary, Board of Health
Department of Inspections, Licenses and Permits, Avis Corbin
Maryland Department of the Environment, John Boris
Executive Director, Maryland Board of Well Drillers, Willie Everett
Homeowner, Maura and Michael Ward
File



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

March 6, 2015

Samuel Connelly (MWD572)
Connelly & Associates
260 Interstate Court
Frederick, MD 21704

RE: Drilling without a well permit
10218 Donleigh Drive
Columbia, MD 21046
Tax Map 42, Grid 01, Parcel 192

Dear Connelly & Associates:

We received a revised site plan on March 4, 2015 from Connelly & Associates that contains the general locations of public water and sewer lines on the property. However, the plan does not list specific setback distances from the geo bores to the road, property lines, and the public sewer line. In addition, we need to know the composition of the utility lines; *COMAR 26.04.04.04* states that a closed geothermal loop well must be:

(d) 50 feet from any gravity sewer line, except the distance of removal shall be at least 10 feet when the sewer is constructed of:

- (i) Cast iron pipe with either water-tight lead caulked joints fitted with neoprene gaskets;*
- (ii) Solvent welded Schedule 40 (or SDR equivalent) or better PVC pipe; or*
- (iii) Thermally welded high density HDPE pipe.*

Please submit a revised site plan that meets the above requirements.

We also received copies of completion reports for both geo bores on March 4, 2015. The reports were complete aside from the completion dates and to-be-issued permit numbers. Include the actual date that the wells were drilled at the completion date. Please send us the original versions and we will return a copy with the permit number once we issue the permits.

If the submitted information is found acceptable by the Maryland Department of the Environment (MDE), a final decision and order from the Howard County Health Department (HCHD) will be provided and the work shall be completed within fifteen (15) days of receipt of the written notification. This will include a completed well permit application along with a well identification tag which will be given to the owner. If the information submitted is not sufficient to correct the violation, MDE or the HCHD may require abandonment and sealing of the wells (*COMAR 26.04.04.34*).

Sincerely,

Sarah Collins
Environmental Health Specialist
Howard County Health Department
Well and Septic Program

Cc: Executive Secretary, Board of Health
Maryland Department of the Environment, John Boris
Executive Director, Maryland Board of Well Drillers, Willie Everett
Homeowner, Maura and Michael Ward
File



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

March 20, 2015

Samuel Connelly (MWD572)
Connelly & Associates
260 Interstate Court
Frederick, MD 21704

RE: **Drilling without a well permit**
10218 Donleigh Drive
Columbia, MD 21046
Tax Map 42, Grid 01, Parcel 192

Dear Connelly & Associates:

We received a revised site plan on March 17, 2015 from Connelly & Associates that contains the locations of public water and sewer lines on the property with setbacks to the drilled geothermal wells. The receipt date of the well permits was January 7, 2015; therefore, the geothermal bore locations are not subject to the guidelines set forth in the newest *Code of Maryland Regulations* released on January 19, 2015. The Health Department approved the submitted site plan.

We also received copies of completion reports for both geo bores on March 17, 2015. The reports were complete aside from the completion to-be-issued permit numbers. The amount of grout used for each bore falls within the manufacturer's acceptable range for the depth of the hole. The Health Department accepts the information provided on the completion reports.

Please complete work within fifteen (15) days of receipt of this written notification. This will include a completed well permit application along with a well identification tag which will be given to the owner. If the information submitted is not sufficient to correct the violation, MDE or the HCHD may require abandonment and sealing of the wells (*COMAR 26.04.04.34*).

Sincerely,

A handwritten signature in cursive script that reads 'Sarah Collins'.

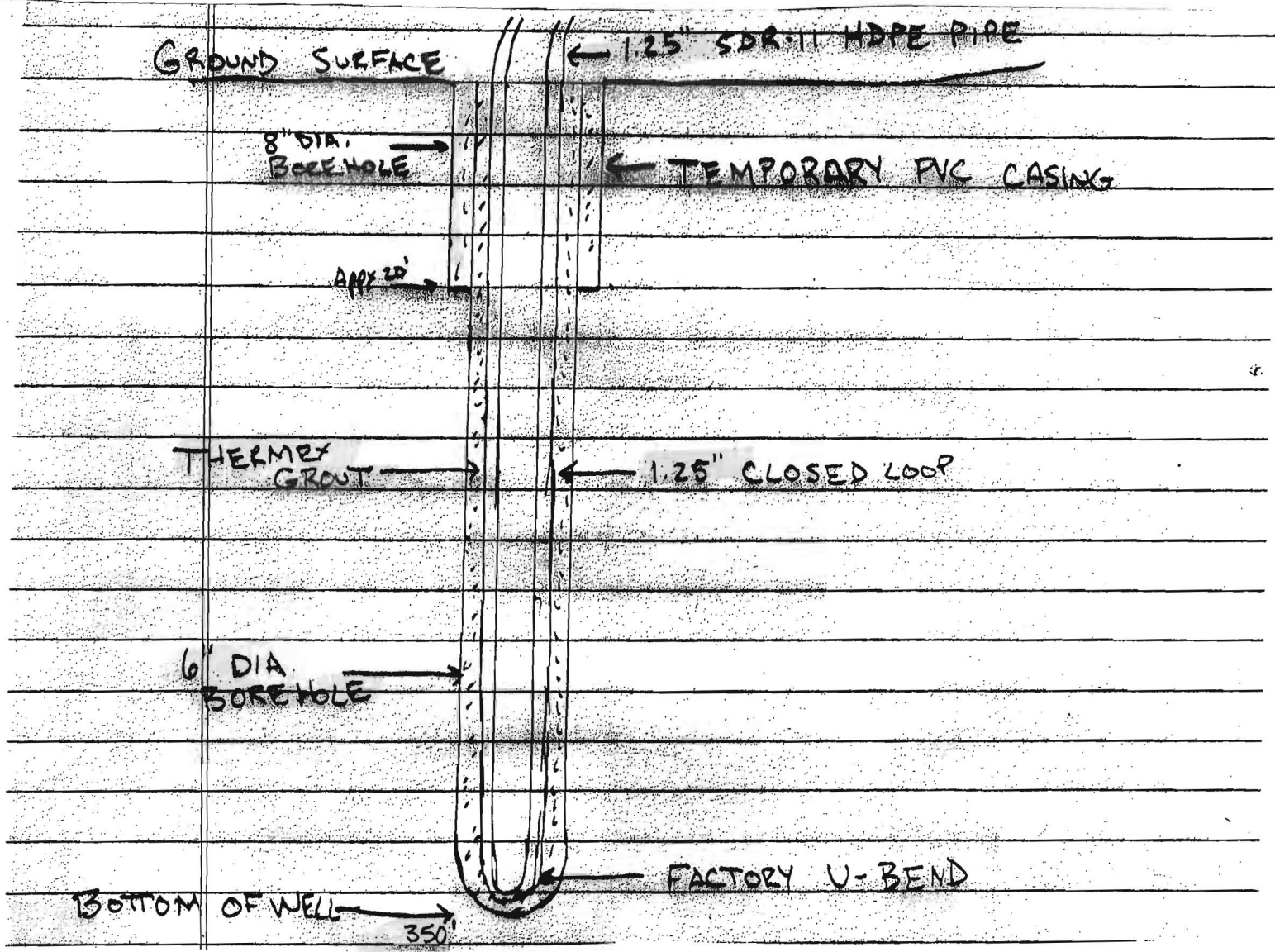
Sarah Collins
Environmental Health Specialist
Howard County Health Department
Well and Septic Program

Cc: Executive Secretary, Board of Health
Maryland Department of the Environment, John Boris
Executive Director, Maryland Board of Well Drillers, Willie Everett
Homeowner, Maura and Michael Ward
File

Connelly Geothermal

Partnering with Mother Earth

Geothermal Closed Loop – 10218 Donleigh Drive



Grout information for this property is as follows:

Thermex grout mixture of 50 lb. grout to 17 gallons water, placed in the well using the tremmie method, from bottom to top.

SITE INSPECTION SHEET

OWNER: Maura Ward + Michael Ward PHONE #: _____

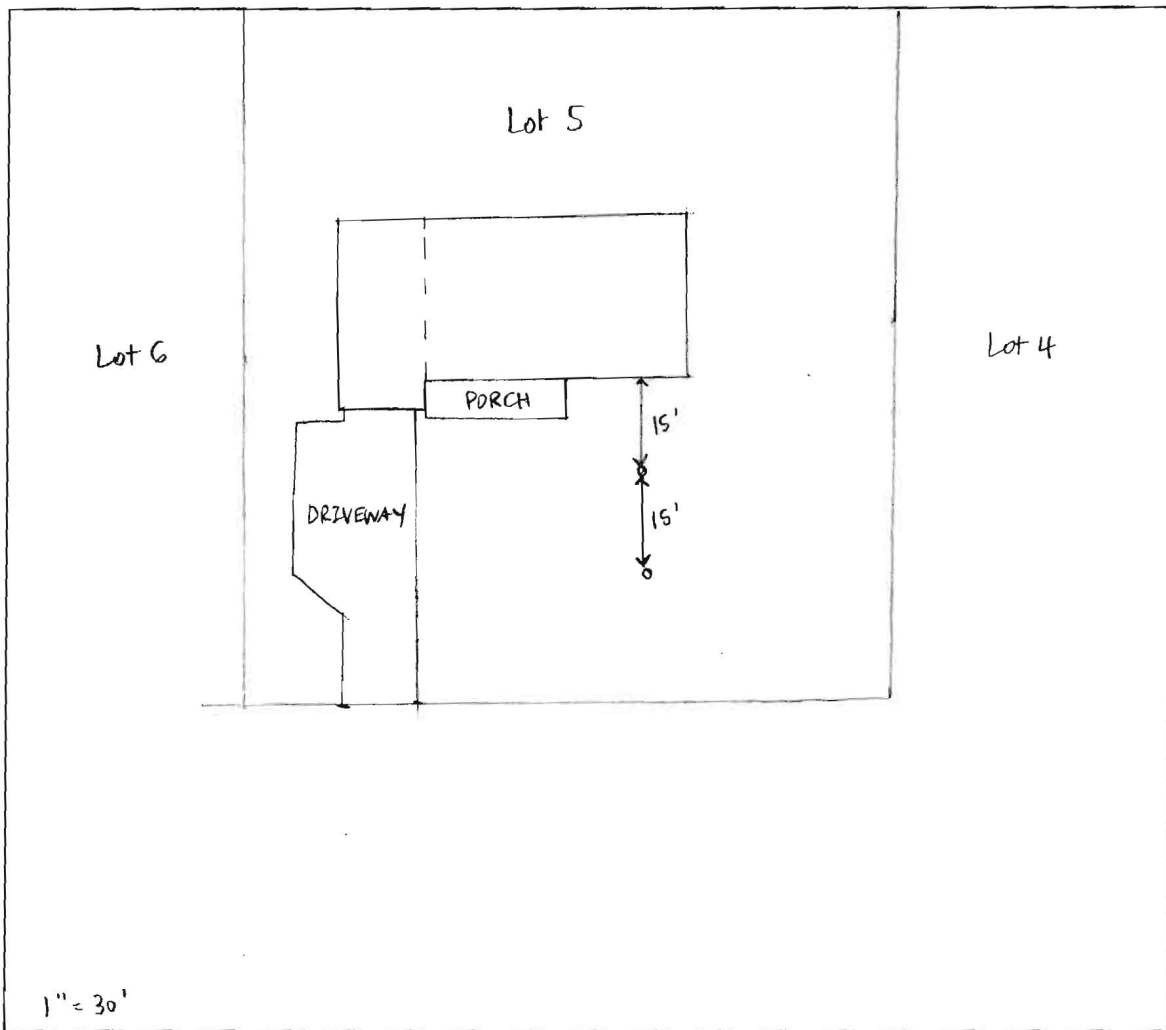
ADDRESS: 10218 Donleigh Dr. CONTRACTOR: Connelly + Associates

WELL TAG #: HO-14-0184

SUBDIVISION: _____ LOT: 5 COUNTY #: 13

PROPOSAL: Site inspection for well permit application for two geothermal wells.
Verification of proposed locations matching submitted site plan is required
prior to permit release.

LOCATION DIAGRAM



COMMENTS: Made a site visit to confirm proposed locations of geothermal wells.
Two bores had already been drilled without a permit. Locations are not
the proposed locations on the site plan accompanying the permit application,
currently in review.

DATE: 1/21/15 INSPECTOR: Sarah Collins

Different country - same homeowners name
already granted

FILE INQUIRY NOTES

DATE	RESULTS OF REVIEW FOR FILE
1/21/15	<p>Made a site visit to check proposed location of geothermal wells. Two wells already drilled, casing left in and not in the proposed locations. Left message and emailed Samuel Connelly (SC)</p>
1/23/15	<p>Spoke with Sam Connelly on the phone. He says that the drilling was the result of an administrative error - another homeowner with the same last name in a different county was also having geothermal wells drilled and they had a permit for that job and mixed up the two. Wells are grouted and complete at this time. (SC)</p>
2/10/15	<p>Meeting with Sam Connelly and Emily Sittler from Connelly, John Boris, *Kevin Wolf, and we discussed the NOW and procedures for avoiding future mix-ups. Connelly will submit site plans detailing drilling locations and setbacks to property lines, water + sewer lines, etc. They will also submit completion reports before we issue the permits. (SC)</p>
3/17/15	<p>Received a site plan from Connelly with all relevant setbacks. In addition, they sent us Utilities records that state the sewer line is made from 'A.C.' (asbestos-concrete?). In current COMAR regs, a geobore would need to meet 50' setback for this material. Because permits were submitted before new regs were released, they are subject to old regs (no specific setback). All looks good - permits and NOW finalized. (SC)</p>