

C1 57953 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.

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

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED MM 03 DAY 24

DATE WELL COMPLETED 10-9-23

Depth of Well 240 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HD-20-0307

OWNER Williams, Michael + Cassandra WELL SITE ADDRESS 5105 Bonnie Branch Rd TOWN Ellicott City, Md SUBDIVISION SECTION LOT

WELL LOG Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Includes entries for Top Soil, Brn Clay, Orange Clay, Wht Clay, Brn Rock, Gray Rock.

GROUTING RECORD Form: WELL HAS BEEN GROUTED (Y/N), TYPE OF GROUTING MATERIAL (Cement, Bentonite Clay), NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL.

CASING RECORD Form: casing types insert appropriate code below, MAIN CASING TYPE, Nominal diameter top (main) casing, Total depth of main casing.

OTHER CASING (if used) Form: diameter inch, depth (feet) from to.

SCREEN RECORD Form: screen type or open hole, insert appropriate code below, STEEL, BRASS, BRONZE, PLASTIC, OPEN HOLE, OTHER.

DEPTH (nearest ft.) Form: A-C3, S-C3, R-C3, E-C3, N-C3, SLOT SIZE 1, 2, 3, DIAMETER OF SCREEN (NEAREST INCH).

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) Form: T (E.R.O.S.), W Q, TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

PUMPING TEST Form: HOURS PUMPED, PUMPING RATE (gal. per min.), METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL (distance from land surface) BEFORE PUMPING, WHEN PUMPING, TYPE OF PUMP USED (for test).

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

LATITUDE 39.23076 LONGITUDE 76.78616 (DEFAULT COORD. WGS 84) Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is not to be processed...

WELL HYDROFRACTURED Form: YES (Y) NO (N), CIRCLE APPROPRIATE LETTER (A, E, P), 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 MWD 598, 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).

+ 01-182471

EMERGENCY/TEMP NO. IF ANY

B 1	SEQUENCE NO. (MDE USE ONLY) <u>75149</u>	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL <u>575022</u> please type	STATE PERMIT NUMBER <u>HO-20-0307</u> <small>70 fill in this form completely 79</small>
Date Received (APA) <u>071323</u>		B 3 LOCATION OF WELL	
OWNER INFORMATION		Howard	
8 MM DD YY 13 <u>Williams Michael + Cassandra</u>		8 COUNTY <u>Howard</u> 21	
15 Last Name Owner First Name 34		23 SUBDIVISION <u>Bonnie Acres</u> 42	
36 Street or RFD 55 <u>5105 Bonnie Branch Road</u>		SECTION <u>48</u> LOT <u>8</u> 50	
57 Town 70 State 72 Zip 76 <u>Ellicott City MD 21043</u>		52 NEAREST TOWN <u>Ellicott City</u> 71	
DRILLER INFORMATION		B 4 SOURCES OF DRILLING WATER	
Driller's Name <u>Wesley Wolfe</u> M <u>MD 598</u> License No. 81		1. <u>Public</u>	
Firm Name <u>Allied Well Drilling</u>		2.	
Address <u>PO Box 129 Annapolis Junction MD 20781</u>		3.	
Signature <u>Wesley Wolfe</u> Date <u>09/27/23</u>		5105 Bonnie Branch Rd 11 STREET ADDRESS 30	
B 2 WELL INFORMATION		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
APPROX. PUMPING RATE (GAL. PER MIN.)		NORTH W 32 E WEST S EAST SOUTH	
8 12		34 37 DISTANCE FROM ROAD	
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)		ENTER FT OR MI 38 39	
14 20		TAX MAP: <u>0031</u> BLK: _____ PARCEL <u>0366</u>	
USE FOR WATER (CIRCLE APPROPRIATE BOX)		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL	
<input 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 checked="" type="checkbox"/> CLOSED LOOP GEOTHERMAL		COUNTY NAME <u>Howard</u> COUNTY NO. <u>13</u> STATE SIGNATURE _____ INSERT S → _____ DATE ISSUED <u>9/27/2023</u> <u>82</u> <u>9/27/2024</u> 43 MM DD YY 48 CO SIGNATURE EXP. DATE	
APPROXIMATE DEPTH OF WELL <u>240</u> FEET		DOA: _____ DOB: _____	
APPROXIMATE DIAMETER OF WELL <u>6</u> INCH		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	
METHOD OF DRILLING (circle one)			
<input checked="" type="checkbox"/> BORED (or Augered) <input type="checkbox"/> JETTED <input type="checkbox"/> Jetted & DRIVEN <input checked="" type="checkbox"/> AIR-ROTary <input type="checkbox"/> AIR-PERCussion <input type="checkbox"/> ROTARY (Hydraulic Rotary) <input type="checkbox"/> CABLE <input type="checkbox"/> REVERSE-ROTary <input type="checkbox"/> DRIVE-POINT other _____			
REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)		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.	
<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 <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 DEEPEIN AN EXISTING WELL			
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52		Permit No. <u>HO-20-0307</u> 70 71 72 73 74 75 76 77 78 79	
Not to be filled in by driller (MDE OR COUNTY USE ONLY)		APPROX. PERMIT NUMBER _____ G _____ PERMIT No. <u>HO-20-0307</u>	
SPECIAL CONDITIONS <u>Grout from bottom to top</u>		NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.	

	A	B			
	20	30			
	21	43			



5105 Bonnie Branch Rd
 Ellicott City Md
 2 wells @ 2 to each
 Closed loop geothermal

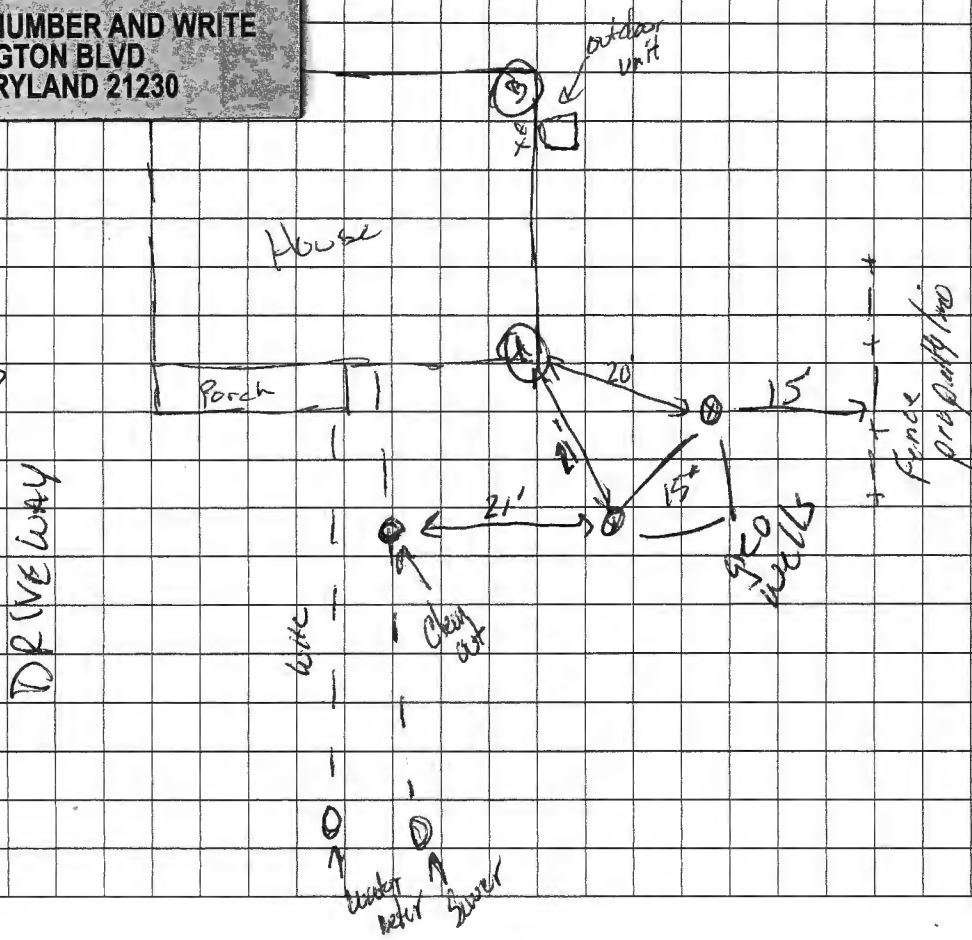
SITE PLAN

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

HO-20-0307

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

Well Site
 Approved
 9/27/2023
 SP



Sediment Control Protocol: SILT FENCE

Distance From House: 20'
 From Septic: N/A
 From Sewer: 21'
 From Property Line: 15'
 From Street: 64'

Trees Nearby: Yes. Take pole saw for limbs
 Utility Issues: NO
 Mats Needed: YES
 Access For H/U: YES
 Neighboring Tags: See Comps

Comments: _____

Person Completing Form: _____

HOWARD COUNTY GROUTING PROCEDURE

Boreholes will be grouted from the bottom to the top via a tremie pipe and positive displacement pump. Bentonite grout, known as Quik-Grout will be used according to the manufacturer's specifications to achieve a consistency of at least 20% solids (24 gallons potable water/50 lb. sack of grout) and a permeability no more than $2.5 \text{ E}(-08) \text{ cm/sec}$. Grouting will be completed immediately after installing the geothermal loop and no later than twenty-four (24) hours after installing the geothermal loop. Open boreholes/annular space will be protected as necessary to prevent the entry of surface water or pollutants.

GRADE

EACH BORE HOLE (TYP.)

SEE PLAN FOR BORE LOCATION
DEPTH 4 FT

FOR CONT.
SEE PLANS

HORIZONTAL
PIPING

GROUT ENTIRE ANGULAR
SPACE AND VERTICAL
U-TUBE WITH (BENTONITE)
GROUT.

BORE DEPTH

TAPE

5 TO 10 FOOT SECTION OF
REBAR TO GUIDE TUBE
INTO BORE DURING
INSTALLATION

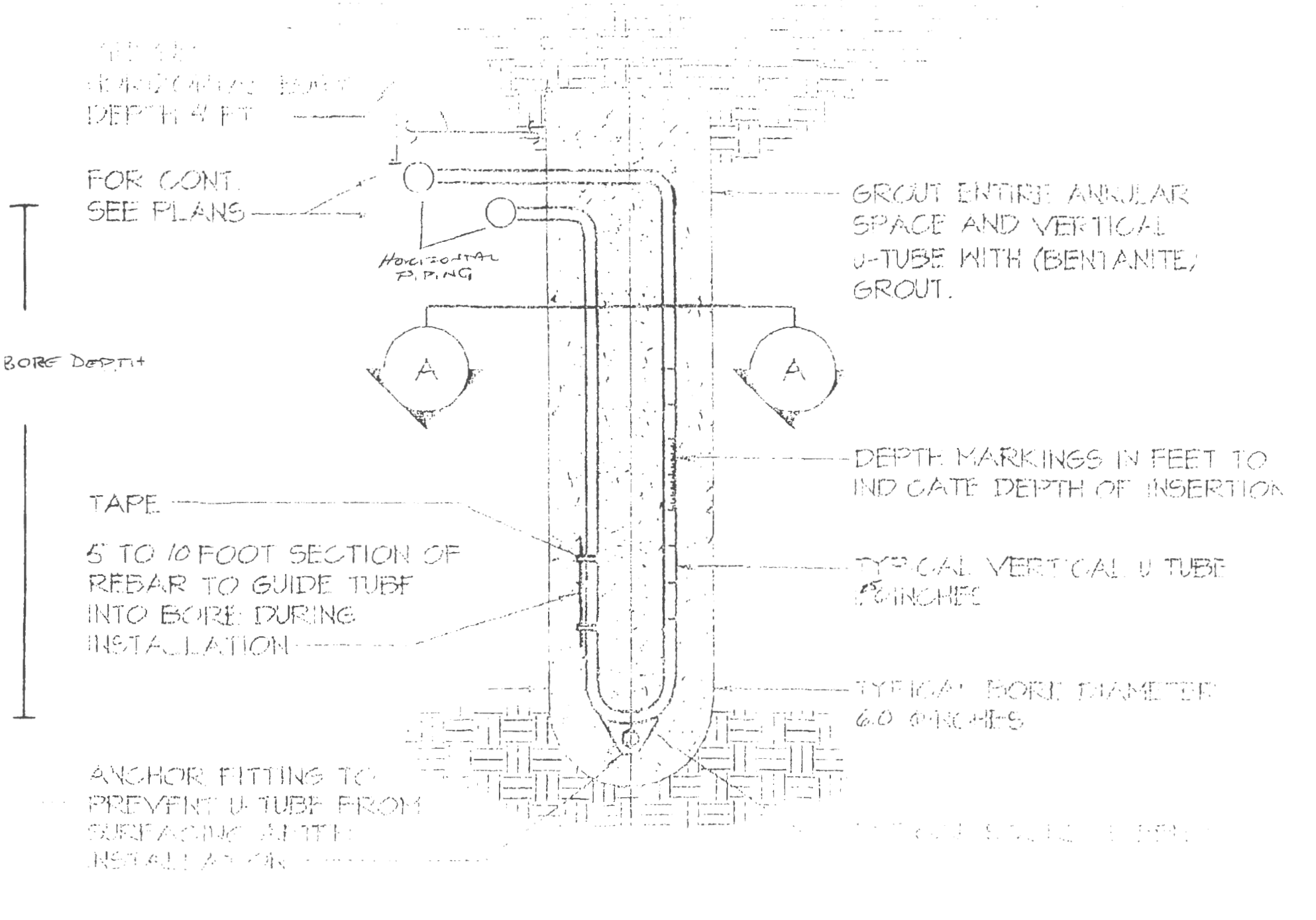
DEPTH MARKINGS IN FEET TO
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U-TUBE
60 INCHES

TYPICAL BORE DIAMETER
60 INCHES

ANCHOR FITTING TO
PREVENT U-TUBE FROM
SURFACING WITH
INSTALLATION

SEE PLAN FOR BORE LOCATION



RECEIPT

Howard County, MD
HOWARD COUNTY HEALTH DEPARTMENT
ASCEND ONE BUILDING
Columbia, MD 21045
8930 STANFORD BLVD

Application: WS-WP-23-02680

Application Type: EnvHealth/Well and Septic/Installation/Application

Address: 5105 Bonnie Branch RD, Ellicott City, MD 21043

Receipt No.	7833					
Payment Method	Ref Number	Amount Paid	Payment Date	Cashier ID	Received	Comments
Check	30782	\$160.00	09/13/2023	ATAYLOR		

Owner Info.: Michael & Cassandra Williams
5105 Bonnie Branch Rd.
Ellicott City, MD 21043

Work Description: