

C1 60793

SEQUENCE NO. (MDE USE ONLY) RECEIPT # 567937-A

STATE OF MARYLAND WELL COMPLETION REPORT

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

ST/CO USE ONLY DATE RECEIVED MM 01 20

DATE WELL COMPLETED 9-9-20 APPROVED [Signature] Depth of Well 400 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-20-0035

OWNER Robinson, Brian + Robyn, Sarah WELL SITE ADDRESS 12226 Benson Branch TOWN Ellicott City MD SUBDIVISION Woodmark SECTION LOT 38

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. Entries: Bin Aug + Sand (0-40), Grey Rock (40-400). Includes handwritten note '2 closed loops'.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES (Y) NO (N) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 16 NO. OF POUNDS 400 GALLONS OF WATER 400 DEPTH OF GROUT SEAL 400

CASING RECORD

STEEL (ST), CONCRETE (CO), PLASTIC (PL), OTHER (OT). MAIN CASING TYPE 60-61, 63-64, 66-70

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

SCREEN RECORD

STEEL (ST), BRASS (BR), OPEN HOLE (HO), PLASTIC (PL), OTHER (OT). DEPTH (nearest ft.)

Table with columns: E A C H S C R E E N, SLOT SIZE 1, 2, 3, DIAMETER OF SCREEN (NEAREST INCH) 56, 60

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 70, 72, 74, 75, 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9 PUMPING RATE (gal. per min.) 11 15 METHOD USED TO MEASURE PUMPING RATE WATER LEVEL (distance from land surface) BEFORE PUMPING 17 20 ft. WHEN PUMPING 22 25 ft. 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 (CIRCLE) (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) 31 35 PUMP HORSE POWER 37 41 PUMP COLUMN LENGTH (nearest ft.) 43 47 CASING HEIGHT (circle appropriate box and enter casing height) + above, - below LAND SURFACE (nearest foot) 49 50 51

LATITUDE 39.27195 LONGITUDE 76.93774 (DEFAULT COORD. WGS 84)

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03-293971

EMERGENCY/TEMP NO. IF ANY

**B 1** **68083** SEQUENCE NO. (MDE USE ONLY) **STATE OF MARYLAND** STATE PERMIT NUMBER **10-20-0035**  
**APPLICATION FOR PERMIT TO DRILL WELL** **567937-A** please type **fill in this form completely**

**OWNER INFORMATION**  
 Date Received (APA) **08/12/20**  
**Robinson Brian + Rohm Sarah**  
 Last Name Owner First Name  
**12206 Benson Branch Rd**  
 Street or RFD  
**Ellicott City MD 21042**  
 Town State Zip

**LOCATION OF WELL**  
**Howard**  
 COUNTY  
**Woodmark**  
 SUBDIVISION  
 SECTION **38** LOT **48**  
**Ellicott City**  
 NEAREST TOWN

**DRILLER INFORMATION**  
**Marshal Arnette MS D 106**  
 Driller's Name License No.  
**Allied Well Drilling**  
 Firm Name  
**PO Box 129 Annapolis Junction MD 20701**  
 Address  
**marshal Arnette 08/11/2020**  
 Signature Date

**SOURCES OF DRILLING WATER**  
 1. **Public**  
 2.  
 3.  
**12206 Benson Branch Rd**  
 STREET ADDRESS  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 NORTH  
 WEST EAST  
 SOUTH  
 DISTANCE FROM ROAD  
 ENTER FT OR MI **38 39**  
 TAX MAP: **0022** BLK: \_\_\_\_\_ PARCEL **0175**

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

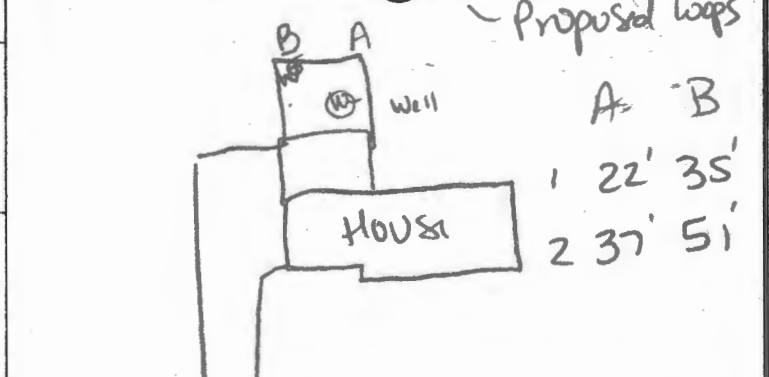
**USE FOR WATER (CIRCLE APPROPRIATE BOX)**  
 DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 INDUSTRIAL, COMMERCIAL, DEWATERING  
 PUBLIC WATER SUPPLY WELL  
 TEST, OBSERVATION, MONITORING  
 OPEN LOOP GEOTHERMAL  
 CLOSED LOOP GEOTHERMAL **2 loops**

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**  
**Howard** COUNTY NAME **13** COUNTY NO.  
 STATE SIGNATURE \_\_\_\_\_ INSERT S \_\_\_\_\_  
 DATE ISSUED **08/19/20** **Susan Thomas** **08/19/20**  
 CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL **400** FEET  
 APPROXIMATE DIAMETER OF WELL **6** 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)**  
 BORED (or Augered)  JETTED  Jetted & DRIVEN  
 AIR-ROTARY  AIR-PERCUSSION  ROTARY (Hydraulic Rotary)  
 CABLE  REVERSE-ROTARY  DRIVE-POINT  
 other \_\_\_\_\_



**REPLACEMENT OR DEEPEINED 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 DEEPEIN AN EXISTING WELL  
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) \_\_\_\_\_

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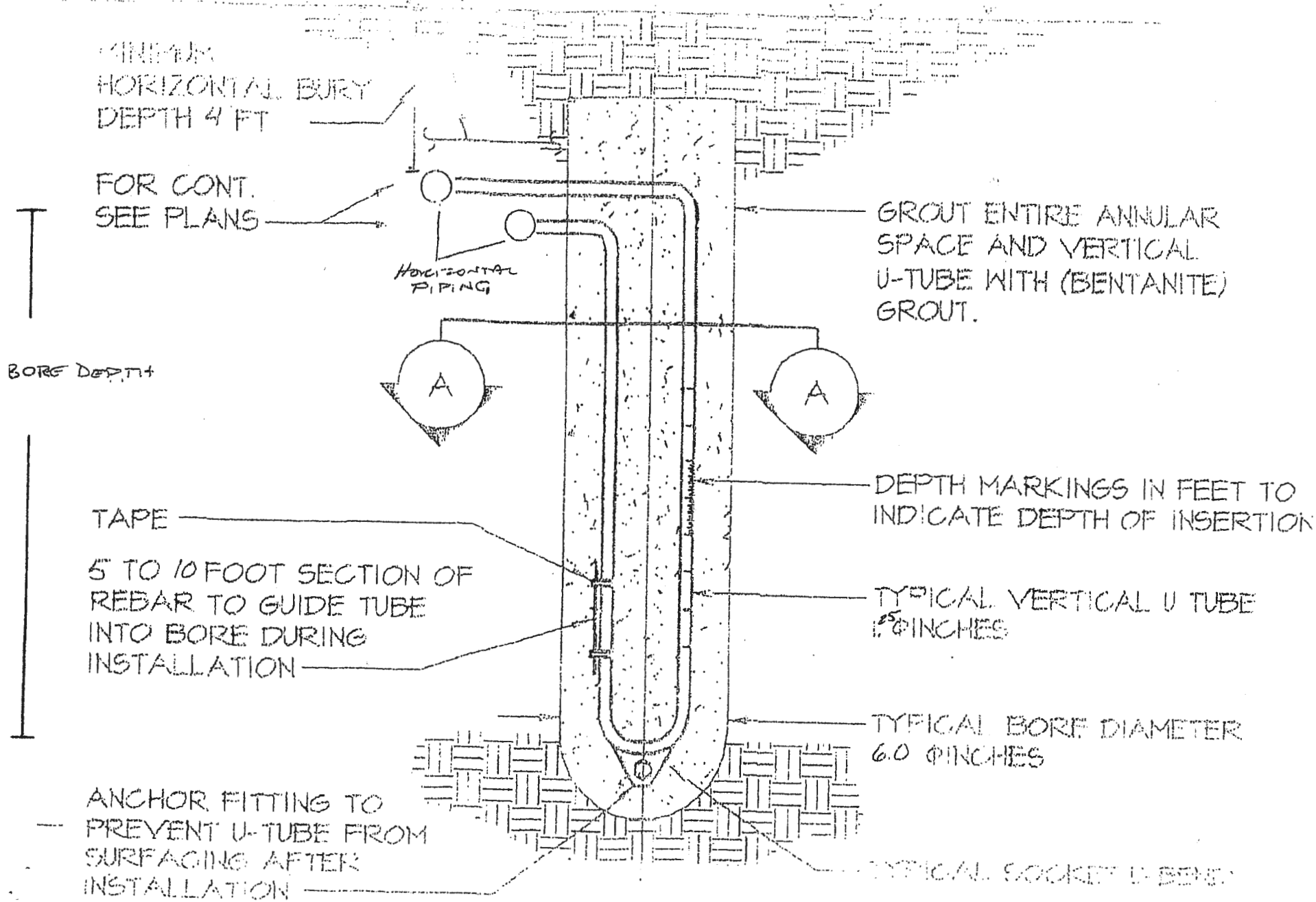
**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**  
 APPROP. PERMIT NUMBER \_\_\_\_\_ **G** \_\_\_\_\_  
 PERMIT No. **10-20-0035**

**SPECIAL CONDITIONS**  
 NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED



GRADE

EACH BORE HOLE (TYP.)



## **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.