

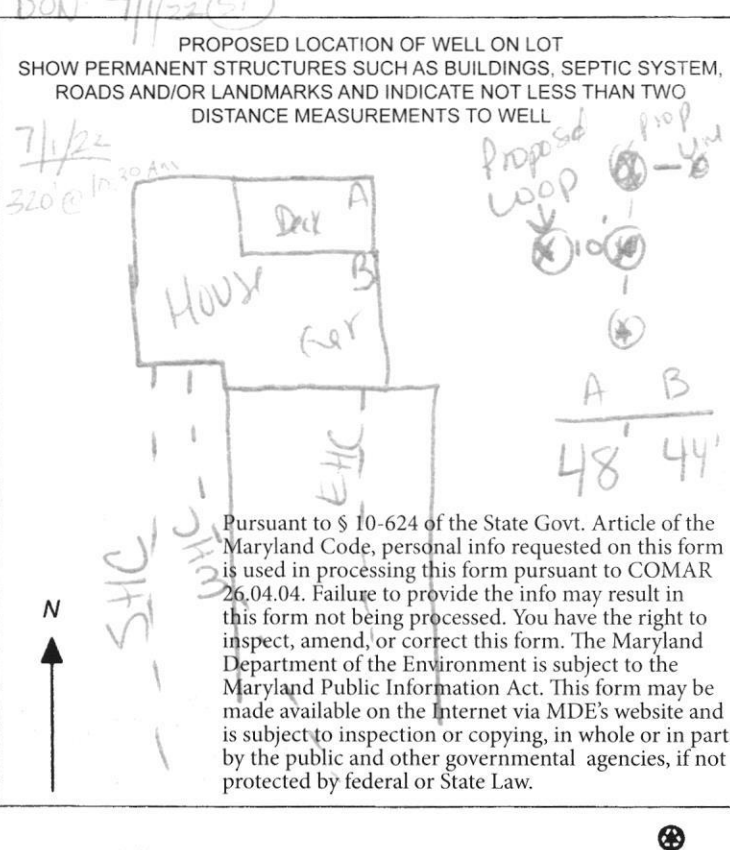
C 1	69995	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.																						
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)																										
ST/CO USE ONLY DATE RECEIVED MM DD YY 07 20 2022		DATE WELL COMPLETED MM DD YY 08 15 2022		Depth of Well 400 (TO NEAREST FOOT)																						
				PERMIT NO. FROM "PERMIT TO DRILL WELL" 40-20-0194																						
OWNER WELL SITE ADDRESS SUBDIVISION		TOWN SECTION LOT																								
WELL LOG Not required for driven wells STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		GROUTING RECORD																								
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DESCRIPTION (Use additional sheets if needed)</th> <th colspan="2">FEET</th> <th rowspan="2">check if water bearing</th> </tr> <tr> <th>FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr> <td>Top Soil</td> <td>0</td> <td>10</td> <td></td> </tr> <tr> <td>Broken Rock</td> <td>10</td> <td>15</td> <td></td> </tr> <tr> <td>Gray Rock</td> <td>15</td> <td>25</td> <td></td> </tr> <tr> <td>Gray Rock</td> <td>25</td> <td>40</td> <td></td> </tr> </tbody> </table>		DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing	FROM	TO	Top Soil	0	10		Broken Rock	10	15		Gray Rock	15	25		Gray Rock	25	40		WELL HAS BEEN GROUTED (Circle Appropriate Box)		
			DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing																				
		FROM		TO																						
		Top Soil	0	10																						
Broken Rock	10	15																								
Gray Rock	15	25																								
Gray Rock	25	40																								
TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC			yes no Y N 44 44																							
NO. OF BAGS 46 NO. OF POUNDS 45-46 GALLONS OF WATER 450 DEPTH OF GROUT SEAL (to nearest foot) from 48 TOP 52 ft. to 54 BOTTOM 58 ft. (enter 0 if from surface)																										
CASING RECORD casing types insert appropriate code below <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>ST STEEL</td> <td>CO CONCRETE</td> </tr> <tr> <td>PL PLASTIC</td> <td>OT OTHER</td> </tr> </table>			ST STEEL	CO CONCRETE	PL PLASTIC	OT OTHER																				
ST STEEL	CO CONCRETE																									
PL PLASTIC	OT OTHER																									
MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot) 60 61 63 64 66 70																										
OTHER CASING (if used) diameter inch depth (feet) from to EACH CASING																										
SCREEN RECORD screen type or open hole insert appropriate code below <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>ST STEEL</td> <td>BR BRASS</td> <td>HO OPEN HOLE</td> </tr> <tr> <td>PL PLASTIC</td> <td>OT OTHER</td> <td></td> </tr> </table>			ST STEEL	BR BRASS	HO OPEN HOLE	PL PLASTIC	OT OTHER																			
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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 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100																										
WELL HYDROFRACTURED yes no Y N																										
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 M D 028 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)																										
LIC. NO. 1 M D 028 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.) W Q																										
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 (describe below)
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 LAND SURFACE (nearest foot)
 - below

LATITUDE 3
 LONGITUDE 7
 (DEFAULT COORD. WGS 84)

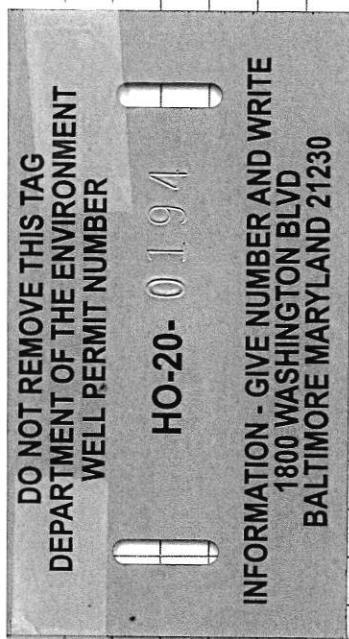
Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The 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)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type		STATE PERMIT NUMBER <u>40-20-0194</u>
1 2 3 6				fill in this form completely	
Date Received (APA) 8 MM DD YY 13 <u>06/14/22</u>			B 3 LOCATION OF WELL		
OWNER INFORMATION			8 COUNTY <u>Howard</u> 21		
15 Last Name <u>Justin + Katie</u> Owner First Name <u>Justin + Katie</u> 34			23 SUBDIVISION <u>Vil Kings Contrivance</u> 42		
36 Street or RFD <u>7414 W Weather Worn Way</u> 55			SECTION <u>44 46</u> LOT <u>259</u>		
57 Town <u>Columbia</u> 70 State <u>MD</u> 72 Zip <u>21046</u> 76			52 NEAREST TOWN <u>Columbia</u> 71		
DRILLER INFORMATION			B 4 SOURCES OF DRILLING WATER		
Driller's Name <u>Michael Kohler</u> 76 License No. <u>MSD 028</u> 81			1. <u>Public</u> 11 STREET ADDRESS <u>7414 W Weather Worn Way</u> 30		
Firm Name <u>Allied Well Drilling</u>			2. _____ 2. _____		
Address <u>25 Rix 129 Annapolis Junction MD 20708</u>			3. _____		
Signature <u>Michael Kohler</u> 05/31/22 Date _____			ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)		
B 2 WELL INFORMATION			NORTH WEST EAST SOUTH		
1 2 APPROX. PUMPING RATE (GAL. PER MIN.) <u>8</u> 12			34 37 DISTANCE FROM ROAD ENTER FT OR MI <u>0062</u> 38 39		
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <u>14</u> 20			TAX MAP: <u>0042</u> BLK: _____ PARCEL <u>0062</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 checked="" 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			COUNTY NAME <u>Howard</u> COUNTY NO. <u>13</u> STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED <u>06/14/22</u> 43 MM DD YY 48 CO SIGNATURE <u>Dusan Thomas</u> EXP. DATE <u>06/14/22</u> DON: <u>7/1/22</u> (SI)		
APPROXIMATE DEPTH OF WELL <u>400</u> FEET 24 28			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 DIAMETER OF WELL <u>6</u> INCH NEAREST INCH					
METHOD OF DRILLING (circle one)			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.		
BORED (or Augered) _____ JETTED _____ Jetted & DRIVEN _____ AIR-ROTary _____ AIR-PERCussion _____ ROTARY (Hydraulic Rotary) _____ CABLE _____ REVerse-ROTary _____ DRIVE-POINT _____ other _____					
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)			39 <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 DEEPEEN 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. <u>40-20-0194</u> 70 71 72 73 74 75 76 77 78 79					
SPECIAL CONDITIONS					
NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED					

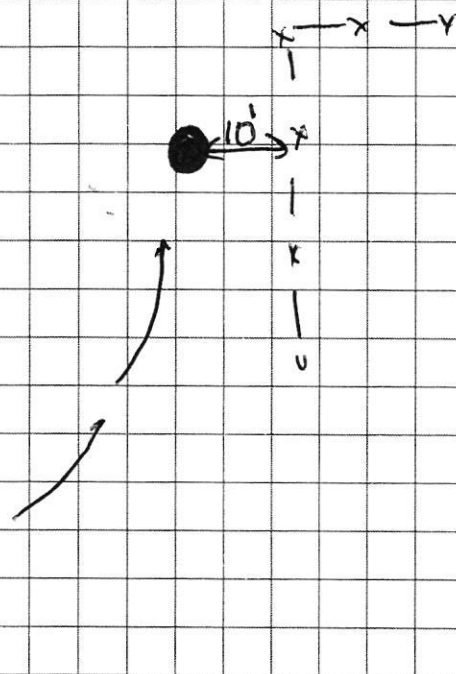
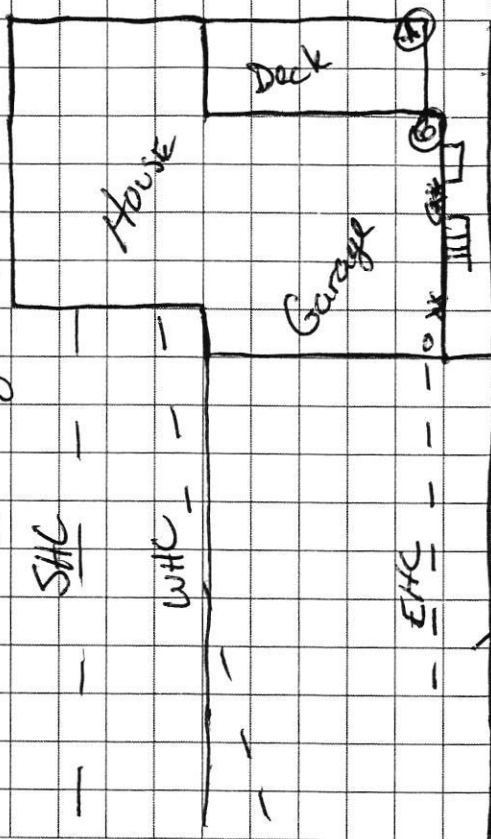
A B
48 44



7414 Weather Warn Way
Columbia Md
1 well @ 400'
closed loop geothermal



Approved 6/14/22 (SD)
Staked by driller



Sediment Control Protocol: SILT Fence

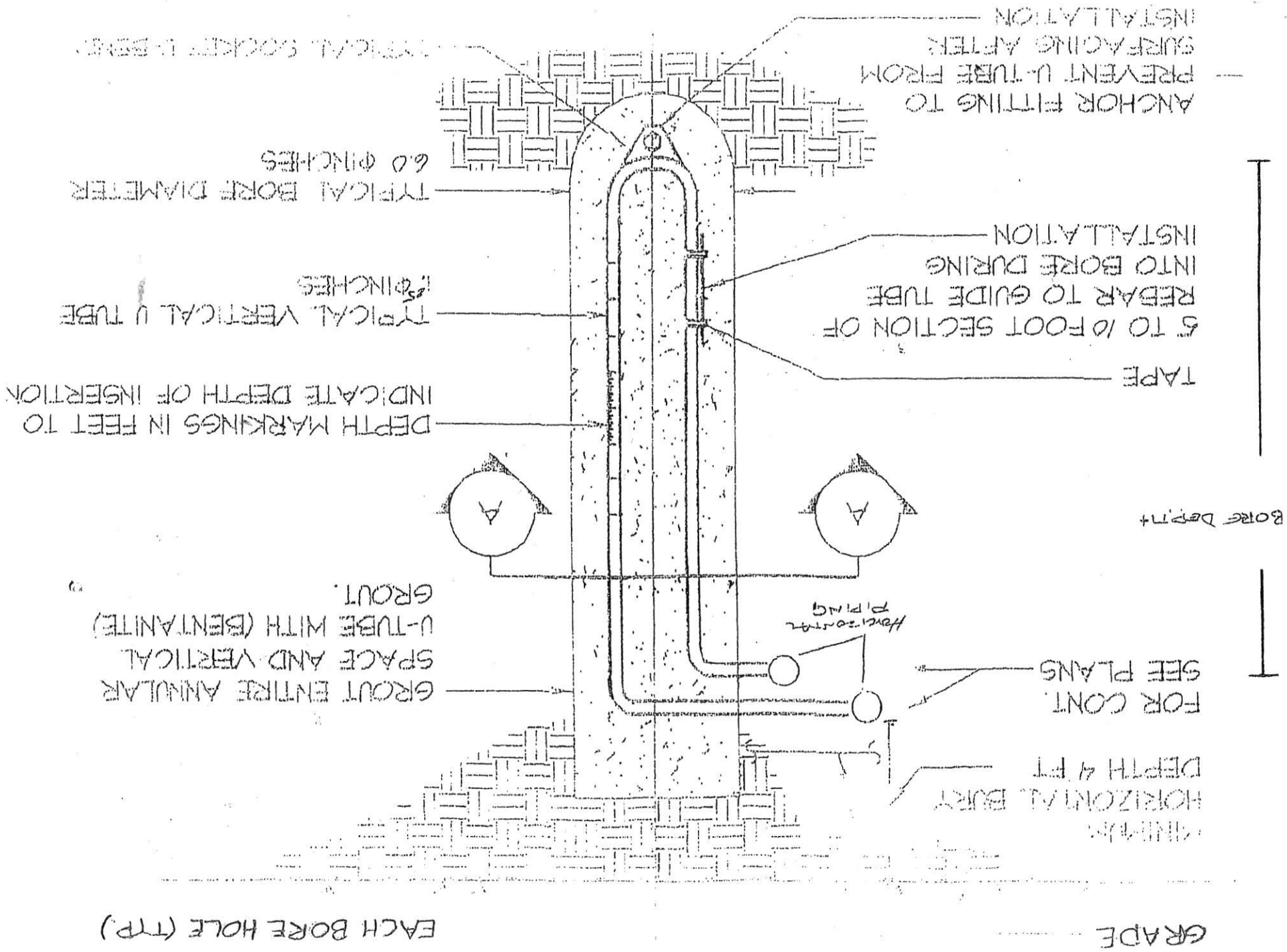
Distance From House: 44'
From Septic: N/A
From Sewer: 50' +
From Property Line: 10'
From Street: 50' +

Comments: Twister Loop

Trees Nearby: Yes. Clear over well
Utility Issues: Need Marked
Mats Needed: Yes
Access For H/U: Yes, stub @ garage
Neighboring Tags: _____

Person Completing Form: Wes Wolfe

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 2.5×10^{-8} 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.