

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS) FILL IN THIS FORM COMPLETELY PLEASE TYPE  
 COUNTY NUMBER **13** PERMIT NO. FROM "PERMIT TO DRILL WELL" **10/15/29**

DATE RECEIVED **10/15/29** DATE WELL COMPLETED **15 20** Depth of Well **330** (TO NEAREST FOOT) TOWN **V...** SECTION **...** LOT **31**

**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	
Top Soil			
...			
...			

**GROUTING RECORD** yes  no   
 WELL HAS BEEN GROUTED (Circle Appropriate Box) **Y** **N**  
 TYPE OF GROUTING MATERIAL (Circle one)  
 CEMENT **CM** BENTONITE CLAY **BC**  
 NO. OF BAGS **45 46** NO. OF POUNDS **45 46**  
 GALLONS OF WATER \_\_\_\_\_  
 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  
**ST** **CO**  
 STEEL CONCRETE  
**PL** **OT**  
 PLASTIC 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  
**E A C H C A S I N G**

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

NUMBER OF UNSUCCESSFUL WELLS: \_\_\_\_\_  
 WELL HYDROFRACTURED  YES  NO

- 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. **M D**  
 DRILLERS SIGNATURE  
 (MUST MATCH SIGNATURE ON APPLICATION)  
 LIC. NO. **D**

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

**C 2** DEPTH (nearest ft.)  
**E A C H S C R E E N**  
**1** 8 9 11 15 17 21  
**2** 23 24 26 30 32 36  
**3** 38 39 41 45 47 51  
 SLOT SIZE 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_  
 DIAMETER OF SCREEN (NEAREST INCH)  
**56 60**  
 from \_\_\_\_\_ to \_\_\_\_\_

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

**C 3** **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 (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 } LAND SURFACE (nearest foot)  
**-** below }

LATITUDE **3 36 56**  
 LONGITUDE **77.67134**  
 (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.

04-593172

EMERGENCY/TEMP NO. IF ANY

B 1	70937	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 586765 please type	STATE PERMIT NUMBER HO - 22 - 0144 70 III in this form completely 70
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Date Received (APA) 07/31/24

8 MM DD YY 13

15 Last Name Owner First Name 34  
Ard Equine Solutions LLC  
16063 A E Mullinix Rd

36 Street or RFD 55  
Woodbine MD 21797

57 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL

8 COUNTY 21  
Howard  
McCuan Farms LLC

23 SUBDIVISION 42  
PAR B1

SECTION 44 46 LOT 48 50  
Woodbine

52 NEAREST TOWN 71

DRILLER INFORMATION

Wesley Wolfe MWD 598  
Driller's Name 76 License No. 81

Alied Well Drilling  
Firm Name

PO Box 129 Annapolis Junction MD 20701  
Address

Wesley A Wolfe 07/30/24  
Signature Date

B 4 SOURCES OF DRILLING WATER

1. Public  
2. 8/13-arrived @ 12 and the rig was gone - called driller to find out if he has well be drilled @ 1pm - both bores drilled.

16063 A E Mullinix Rd  
11 STREET ADDRESS 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
NORTH N  
WEST W EAST E  
SOUTH S

34 300' + 37 DISTANCE FROM ROAD 38 39  
ENTER FT OR MI

TAX MAP: 0013 BLK: PARCEL 007

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

8/12/24 - started first bore 60' ft so far - set 60' casing. 2 loops

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County 13  
COUNTY NAME COUNTY NO.

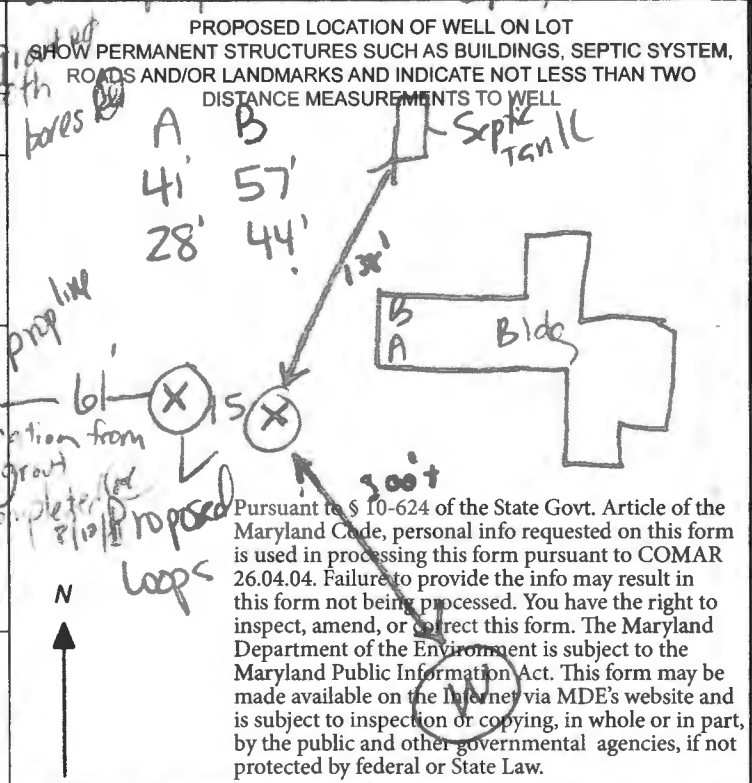
STATE SIGNATURE INSERT S → 41

DATE ISSUED 8/12/24 8/12/24  
43 MM DD YY 48 CO SIGNATURE EXP. DATE

Don: 8/12/24 (RD) Doc: 8/13/24 (RD)

APPROXIMATE DEPTH OF WELL 320 FEET 8/13/24  
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 DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL 8/14/24 - rec'd notification from driller that the grant was completed 8/10/24

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) 41 52

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

APPROP. PERMIT NUMBER - - - - - G - - - - -

PERMIT No. HO - 22 - 0144  
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS Please Notify office of Drilling & Grout

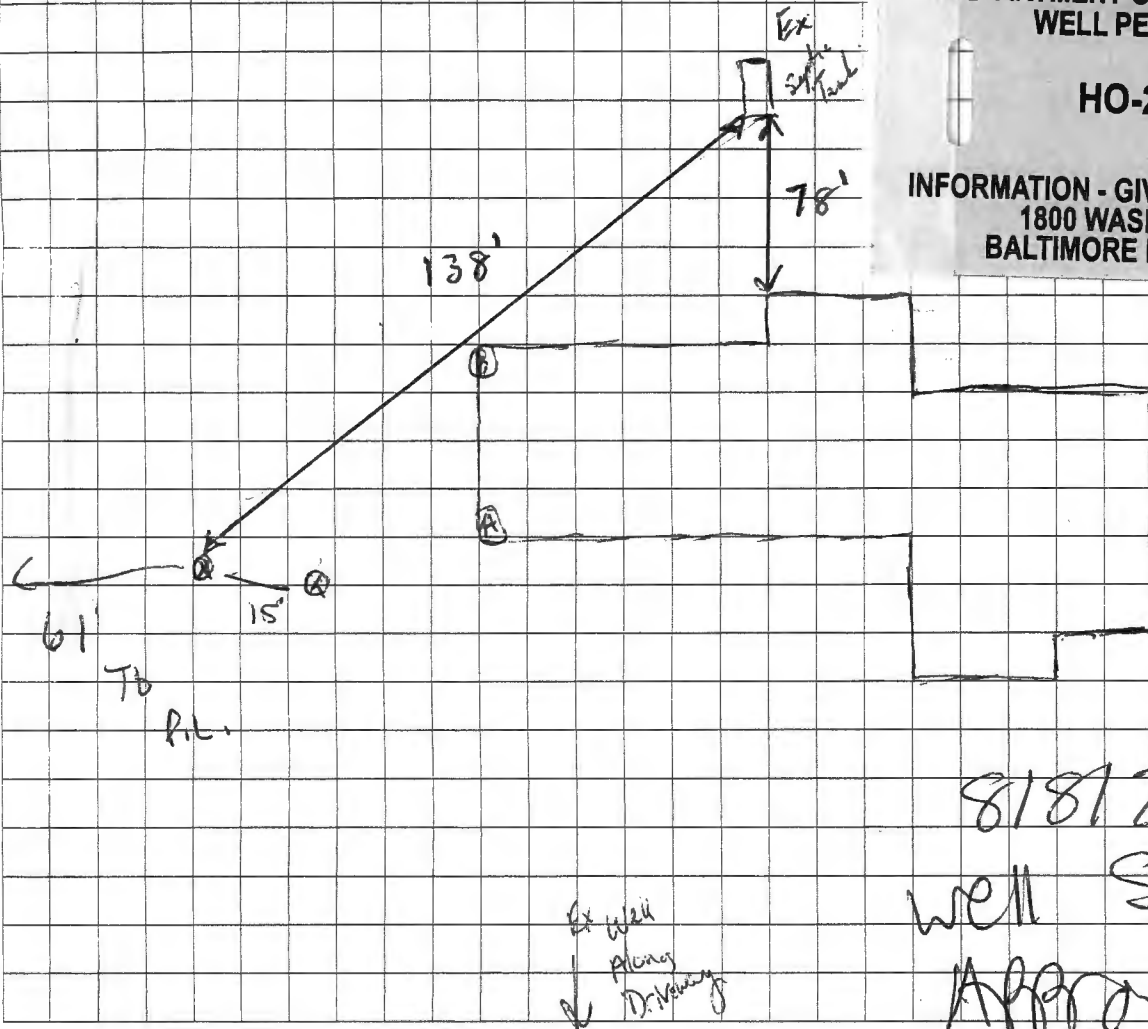
NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

A B  
41 57  
29 44



16063 AE McMillan Rd  
Woodrow Md  
2 wells @ 320' each  
Closed top geothermal

DO NOT REMOVE THIS TAG  
DEPARTMENT OF THE ENVIRONMENT  
WELL PERMIT NUMBER  
**HO-22-0144**  
INFORMATION - GIVE NUMBER AND WRITE  
1800 WASHINGTON BLVD  
BALTIMORE MARYLAND 21230



8/8/2024  
well site  
Approved  
*(Signature)*

Sediment Control Protocol: SILT Fence

Distance From House: 28'  
From Septic: 50'+  
From Sewer: N/A  
From Property Line: 61' To Left  
From Street: 300'+

Trees Nearby: Yes But OK  
Utility Issues: NO  
Mats Needed: NO  
Access For H/U: Yes into crawl space  
Neighboring Tags: See Camps

Comments: \_\_\_\_\_

Person Completing Form: Wes Wolfe

# FILE INQUIRY NOTES

DATE	RESULTS OF REVIEW FOR FILE
8/5/2024	Met w/ homeowner to verify well stakes. Stakes
	moved due to renovation, driller restaking wells.
	Respect for stakes. (SP)
6/6/2024	- verified geothermal wells staked per plan. Could not
	verify septic tank/drainfield location.
	Ex well near driveway verified, meets setback
	to geo stakes. (SP/MB)
8/5/2024	- verified septic tank location. ST 138' from
	geo stake. (See attached pic for ST.
	Released permit for Allied to pick up. (SP)



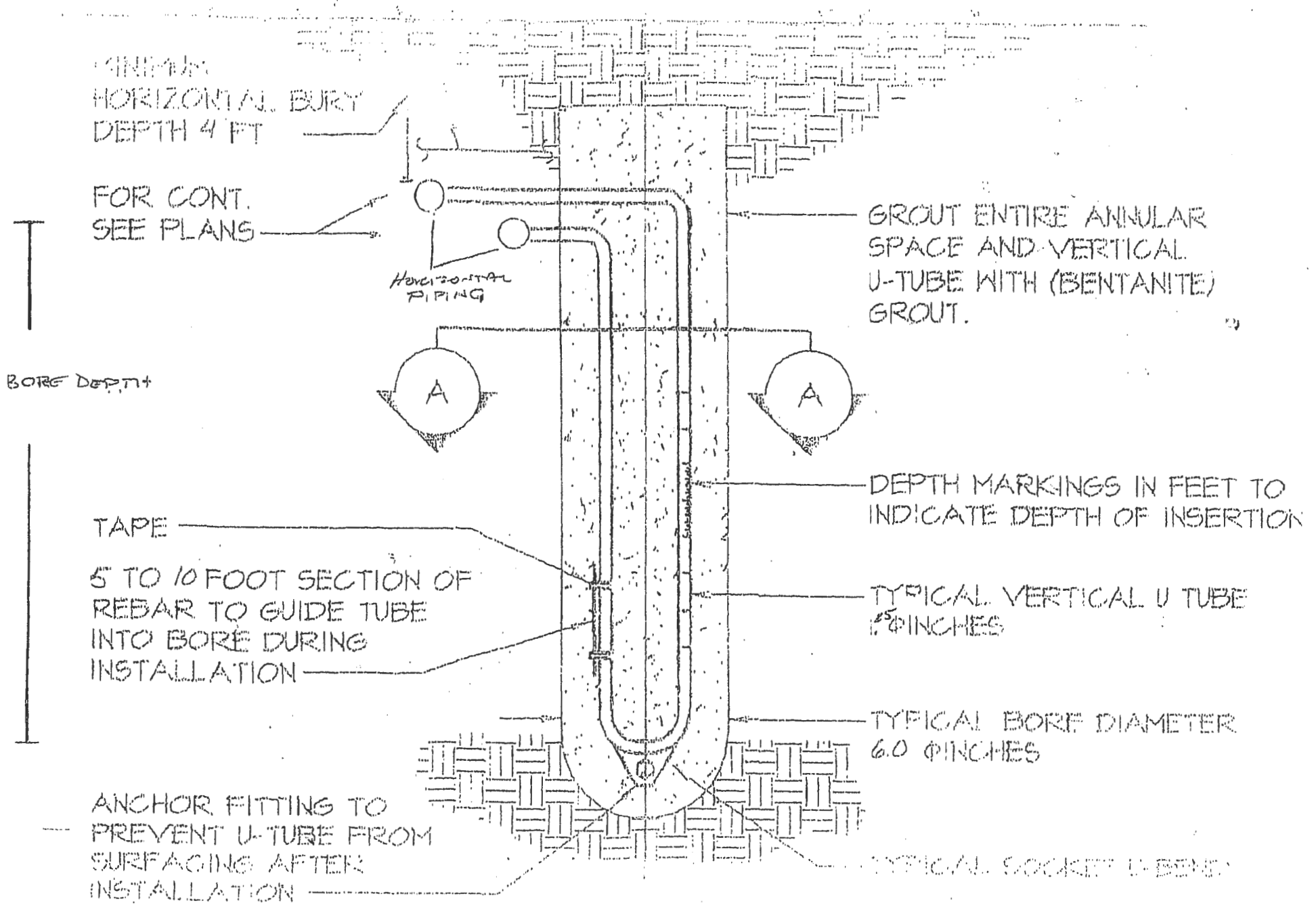
**8/8/2024 Septic Tank Location. Verified w/ homeowner.  
Distance from house matches as-built done during  
install. SP/MB**

## **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.)



MINIMUM  
HORIZONTAL BURY  
DEPTH 4 FT

FOR CONT.  
SEE PLANS

Horizontal  
PIPING

GROUT ENTIRE ANNULAR  
SPACE AND VERTICAL  
U-TUBE WITH (BENTANITE)  
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  
1.5 INCHES

TYPICAL BORE DIAMETER  
6.0 INCHES

ANCHOR FITTING TO  
PREVENT U-TUBE FROM  
SURFACING AFTER  
INSTALLATION

TYPICAL SOCKET U-BEND

**RECEIPT**

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

**Application:** WS-WP-24-02255  
**Application Type:** EnvHealth/Well and Septic/Installation/Application  
**Address:** 16063 AE MULLINIX RD, WOODBINE, MD 21797

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<b>Receipt No.</b>	10362					
<b>Payment Method</b>	<b>Ref Number</b>	<b>Amount Paid</b>	<b>Payment Date</b>	<b>Cashier ID</b>	<b>Received</b>	<b>Comments</b>
Check	33150	\$160.00	07/31/2024	SMARTIN		

**Owner Info.:** ARD EQUINE SOLUTIONS LLC  
16063 AE MULLINIX ROAD  
WOODBINE, MD 21797

**Work Description:** GEOTHERMAL WELL