



HOWARD COUNTY HEALTH DEPARTMENT

72795
W5

DATE
2/24/23

Received From

Ailica Environmental Service, Inc

PHONE # 301 776 8370

CASH
 CHECK
 NO. 21460

For Wp 11

4510 Mustang Dr.

One hundred + Sixty Dollars — u/w

Dollars

\$ 160 | u/w

Received By Vicki DeCree

02-305887

EMERGENCY/TEMP NO. IF ANY

Tag:

B 1 SEQUENCE NO. (MDE USE ONLY) **STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL** STATE PERMIT NUMBER **40-20-0258**

1 2 3 6 please type **572715** **70** fill in this form completely **78**

OWNER INFORMATION

Date Received (APA) **02/22/23**

8 MM DD YY 13

15 Last Name **Schall** Owner **Michael** First Name **Vickers** 34

36 Street or RFD **4510 Mustering Down** 55

57 Town **Ellicott City MD** 70 State **MD** 72 Zip **21042** 76

B 3 LOCATION OF WELL

8 COUNTY **Howard** 21

23 SUBDIVISION **Dorsey Hall** 42

SECTION **44** 46 LOT **A61** 48 50

52 NEAREST TOWN **Ellicott City** 71

DRILLER INFORMATION

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

Firm Name **Wesley Wolfe Drilling**

Address **PO Box 129 Annapolis Junction MD 20721**

Signature **Wesley Wolfe** Date **02/21/23**

B 4 SOURCES OF DRILLING WATER

1. **Public**

2. **3/24/2023-**

3. **3/27/2023-**

11 STREET ADDRESS **4510 Mustering Down** 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH WEST EAST SOUTH

34 245 37 DISTANCE FROM ROAD FT

ENTER FT OR MI FT MI 38 39

TAX MAP: **0030** BLK: _____ PARCEL **0396**

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 **(4) Loops**

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME **Howard** COUNTY NO. **13**

STATE SIGNATURE _____ INSERT S → 41

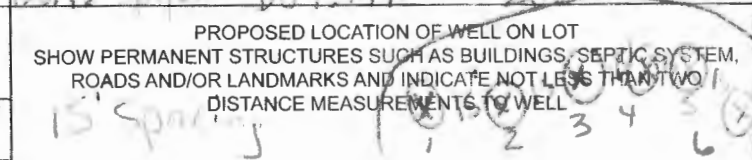
DATE ISSUED **3/7/2023** CO SIGNATURE **Kim Wolf** 3/7/2024 EXP. DATE

43 MM DD YY 48

1 unit, 2 red. DON: 3/1/2020 DOY: N/A

APPROXIMATE DEPTH OF WELL **226** FEET 24 28

APPROXIMATE DIAMETER OF WELL **6** INCH NEAREST INCH



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) **41** _____ **52**

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

APPROX. PERMIT NUMBER _____ **G** _____

PERMIT No. **40-20-0258**

70 71 72 73 74 75 76 77 78 79

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.

(THIS NUMBER IS TO BE PUNCHED IN COLUMNS 4-6 ON ALL CARDS) FILL IN THIS FORM COMPLETELY PLEASE TYPE COUNTY NUMBER 13 (Howard)

ST/CO USE ONLY DATE Received DATE WELL COMPLETED Depth of Well PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER last name first name TOWN SECTION LOT

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	
Fill Sand	0	5	
Yellowish clay	5	30	
Clay	30	100	
Clay with pebbles	100	100	
Clay with pebbles	100	100	
Clay with pebbles	100	100	
Clay with pebbles	100	100	
Clay with pebbles	100	100	
Clay with pebbles	100	100	
Clay with pebbles	100	100	

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 11 NO. OF POUNDS 25 50 110
GALLONS OF WATER 110
DEPTH OF GROUT SEAL (to nearest foot) 340
from 48 TOP 52 ft. to 54 BOTTOM 58 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
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)
EACH CASING diameter inch depth (feet) from to

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

NUMBER OF UNSUCCESSFUL WELLS: 0
WELL HYDROFRACTURED **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
DRILLERS SIGNATURE
LIC. NO. 1 D

C 2 DEPTH (nearest ft.)

1	8	9	11	15	17	21
2	23	24	26	30	32	36
3	38	39	41	45	47	51
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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

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 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)
+ above LAND SURFACE (nearest foot)
- below

LATITUDE 39.24983
LONGITUDE 76.13215
(DEFAULT COORD. WGS 84)

Purpant to §10-224 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.

FILE INQUIRY NOTES

DATE	RESULTS OF REVIEW FOR FILE
3/24/2023	Onsite during start of first borehole drilling. Driller finished putting silt fence up. Water onsite. First 50' reddish clay then sand. 70' sandy & little darker color, some mica seen. Hit bedrock at 95', has 100' of casing. (SP)
3/27/2023	Driller on first borehole, while onsite driller @ 320', 20' left to drill. HA water @ 150'. (SP)
3/28/2023	During drilling of 2 nd borehole, water tore silt fence open, water began flowing downhill onto side walk next to Columbia rd. 2 nd hole had 97' casing & 95' bedrock. Hit fracture @ 340'. Came back onsite @ end of day, mud was cleaned up. Drillers moved stakes to be further from hill. Measured new staked location distance to house. (SP)
3/29/23	drilling 3 rd bore and sediment controls look good. (SP)
3/31/23	Grout dropped a few feet, driller will add grout @ later date (SP)

Wolf, Kevin

From: Wolf, Kevin
Sent: Thursday, February 23, 2023 12:12 PM
To: Wes Wolfe
Subject: 4510 Mustering Drum | Geothermal Well application

Wes,
In review of this well permit application for geothermal installation, the site plan you have submitted looks good but we need distances to property lines. Please revise and resubmit. Ill begin to process the application once I get the revision.

Thanks,

Kevin M. Wolf, LEHS, REHS/RS
Groundwater Mgmt. Sec. Supervisor
Well & Septic Program
Howard County Health Department
8930 Stanford Blvd.
Columbia, MD 21045
410-313-2645 (Office)
410-313-2648 (Fax)
www.hchealth.org
kwolf@howardcountymd.gov



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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 BORE
DEPTH 4 FT

FOR CONT.
SEE PLANS

HORIZONTAL
PIPING

GROUT ENTIRE ANNUAL
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

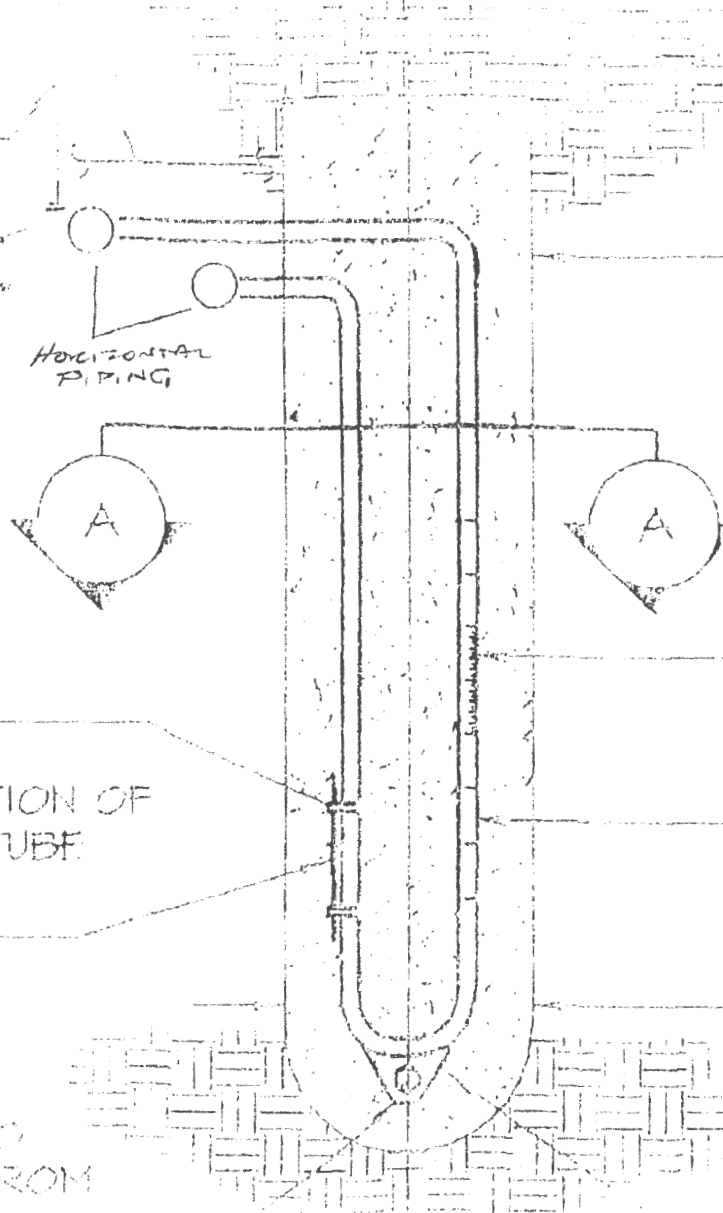
DEPTH MARKINGS IN FEET TO
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U-TUBE
6.0 INCHES

TYPICAL BORE DIAMETER
6.0 INCHES

ANCHOR FITTINGS TO
PREVENT U-TUBE FROM
SURFACING AFTER
INSTALLATION

SEE OTHER SHEETS FOR DETAILS



RECEIPT

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

Application: WS-WP-23-00433

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

Address: 4510 MUSTERING DRUM, Ellicott City, 21042

Receipt No.	Ref Number	Amount Paid	Payment Date	Cashier ID	Received	Comments
5853	29460	\$160.00	02/22/2023	SMARTIN		

Owner Info.: SCHELL MATTHEW A TRUSTEE
4510 MUSTERING DRUM
ELLCOTT CITY, MD 21042

Work Description: DORSEY HALL LOT A61