

B 1 18633

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

544509 please type

40-95-2475 fill in this form completely

Date Received (APA) 01/14/13

OWNER INFORMATION

8 MM DD YY 13

Thompson Tim Last Name Owner First Name

11346 BARLEY FIELD WAY Street or RFD

Marriottsville MD 21104 Town State Zip

B 3

LOCATION OF WELL

Howard COUNTY

WOODFORDS GRANT SUBDIVISION

SECTION LOT 12

Marriottsville NEAREST TOWN

DRILLER INFORMATION

Michael Barlow MW D355 Driller's Name License No.

Barlow Well Drilling Firm Name

522 Underwood Lane 21014 Address

Signature Date 1/10/13

B 4

SOURCES OF DRILLING WATER

- 1. Well

11346 Barley Field Way STREET ADDRESS

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



60 DISTANCE FROM ROAD

ENTER FT OR MI

TAX MAP: 10 BLK: 16 PARCEL 27

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard COUNTY NAME A50617-N COUNTY NO.

STATE SIGNATURE INSERT S DATE ISSUED

1/25/13 CO SIGNATURE 1/25/14 EXP. DATE

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
I INDUSTRIAL, COMMERCIAL, DEWATERING
P PUBLIC WATER SUPPLY WELL
T TEST, OBSERVATION, MONITORING
O OPEN LOOP GEOTHERMAL
C CLOSED LOOP GEOTHERMAL

3 Bores x 375'

APPROXIMATE DEPTH OF WELL 375 FEET

APPROXIMATE DIAMETER OF WELL 6 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 DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
D THIS WELL WILL DEEPEM AN EXISTING WELL

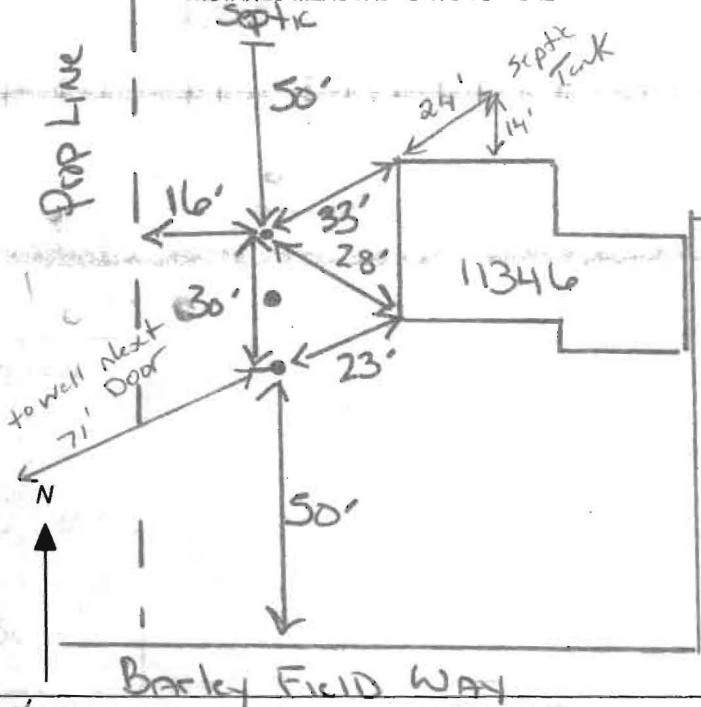
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

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

APPROX. PERMIT NUMBER

PERMIT No. 40-95-2475

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



SPECIAL CONDITIONS Grant wells bottom to top.

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.

ST/CO USE ONLY DATE Received MM 04 DD 25 Y1 13 DATE WELL COMPLETED MM 02 DD 21 Y2 13 Depth of Well 22 375 26 5/21/13 (TO NEAREST FOOT) PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-2475

OWNER Thompson, Tim last name first name WELL SITE ADDRESS 11346 Barley Field Way TOWN Marriottsv. Hk SUBDIVISION Woodford's Grant SECTION LOT 12

**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	
Soil	0	6	
Red clay	6	17	
Brown shale	17	43	
Gray Rock	43	320	
Limestone	320	375	

3 bores x 375' Deep

**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 20 NO. OF POUNDS 1000  
GALLONS OF WATER 500  
DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 375 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

**C2** DEPTH (nearest ft.)  
1 8 9 11 15 17 21  
2 23 24 26 30 32 36  
3 38 39 41 45 47 51  
E S R E E N  
SLOT SIZE 1 2 3  
DIAMETER OF SCREEN (NEAREST INCH)  
56 60  
from to

GRAVEL PACK IF WELL DRILLED WITH 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

**C3** **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  
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) LAND SURFACE (nearest foot)  
+ above }  
- below }

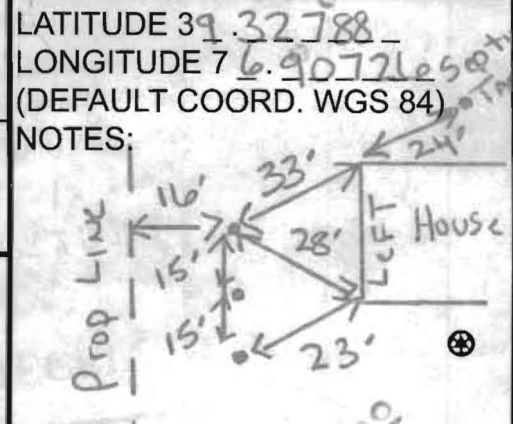
NUMBER OF UNSUCCESSFUL WELLS: 0  
WELL HYDROFRACTURED yes no **Y** **N**

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. MWD 355  
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)  
LIC. NO. AWD 902

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



**MICHAEL BARLOW WELL DRILLING  
522 UNDERWOOD LANE  
BEL AIR, MD 21014  
410-838-6910**


Howard County Health Department  
7178 Columbia Gateway Drive  
Columbia, MD 21046  
Fax: 410-313-2648

January 2, 2013

Re: 11346 Barley Field Way, Ellicott City, Columbia

Dear Department of Environment:

Please note unless otherwise specified all geothermal bores installed by our company will be installed as follows:

 Grout: Bentonite Grout 20% solids minimum  
Manufacture(s): Baroid or Wyo-Ben  
Will be grouted from the bottom to the top with grout material

Piping: Polyethylene SDR 11 160 PSI as recommended per IGSHPA  
Manufacture: EnDot or Charter Plastics or equal, Size 1" or 1 1/4"  
IGSHPA Certification Number 12687

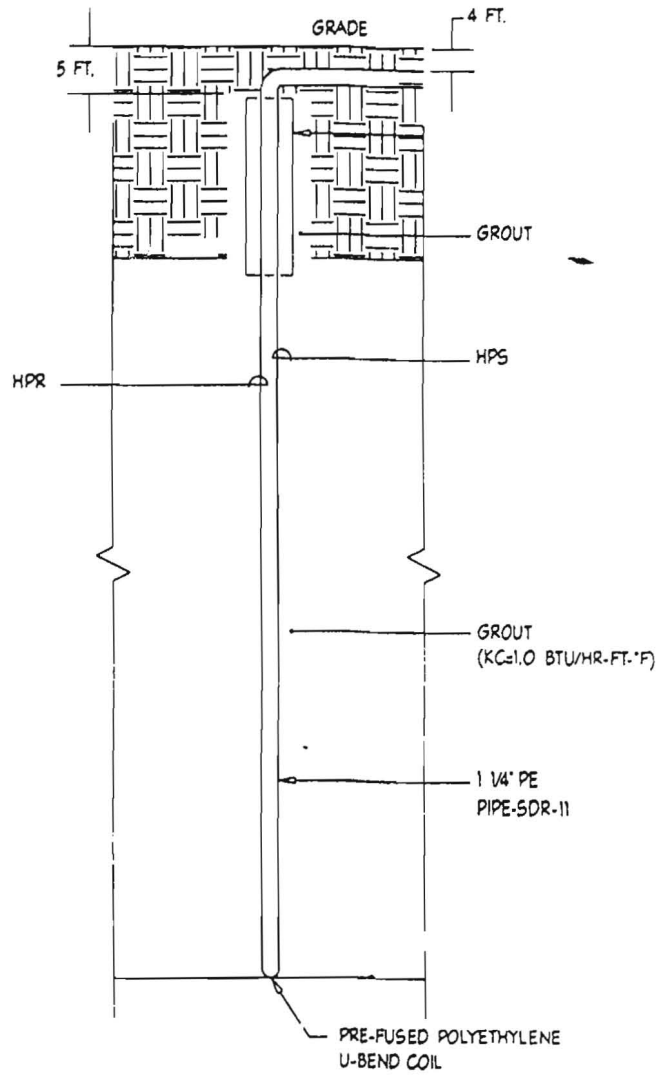
Also attached is a cross section diagram of the bore hole.

We would appreciate your help in getting this permit released as soon as possible so that we can expedite this project. If you have any questions, please do not hesitate to contact me.

Sincerely,



Michael Barlow



OK

4 TYPICAL BORE HOLE DETAIL  
 M1.00 NOT TO SCALE