C 1 SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)	FILL IN THIS FORM COMPLETELY PLEASE TYPE	COUNTY NUMBER	
ST/CO USE ONLY DATE Received MM DD YY 8 13 15	Depth of Well 22 20 (TO NEAREST FOOT) 26	PERMIT NO. FROM "PERMIT TO DRILL WELL" - 28 29 30 31 32 33 34 35 36 37	
OWNER BICE	John		
WELL SITE ADDRESS [fast name] 2206	CArroll M. Inret name TOWN	HIS HOILIS	
SUBDIVISION WOOD MACK	SECTION GROUTING RECORD	LOT	
Not required for driven wells	WELL HAS BEEN GROUTED (Circle Appropriate Box)	1 2	
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING	TYPE OF GROUTING MATERIAL (Circle one)	PUMPING TEST HOURS PUMPED (nearest hour)	
DESCRIPTION (Use additional sheets if needed) FROM TO check if water bearing	NO. OF BAGS NO. OF POUNDS	8 9/	
SOIL 05	GALLONS OF WATER DEPTH OF GROUT SEAL (to nearest foot)	PUMPING RATE (gal. per min.) METHOD USED TO MEASURE PUMPING RATE	
RED CLAY 5 17	from 48 TOP 52 ft. to 54 BOTTOM 58 ft. (enter 0 if from surface)	WATER LEVEL (distance from land surface)	
Brown	casing types CASING RECORD	BEFORE PUMPING 17 20 ft.	
Shale 1735	(appropriate code below P L O T	WHEN PUMPING 22 25 TYPE OF PUMP USED (for test)	
Schist 35 27	MAIN Nominal diameter Total depth CASING top (main) casing of main casing	A air p piston turbine 27 other	
	TYPE (nearest inch)! (nearest foot)	C centrifugal R rotary (describe below)	
	60 61 63 64 66 70 E OTHER CASING (if used) A diameter depth (feet)	J jet S submersible	
	inch from to	PUMP INSTALLED DRILLER INSTALLED PUMP YES NO	
	No	(CIRCLE) (YES or NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.	
3 boxes	screen type or open hole ST BR HO	TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.	
x 270	insert appropriate code below PL TOTAL	CAPACITY: GALLONS PER MINUTE (to nearest gallon) (1) (1) (2) (3) (3)	
315	PLASTIC OTHER	PUMP HORSE POWER 37 41	
NUMBER OF UNSUCCESSFUL WELLS:	C 2 DEPTH (nearest ft.)	PUMP COLUMN LENGTH (nearest ft.)	
WELL HYDROFRACTURED Yes N	E 8 9 11 15 17 21 C 2	CASING HEIGHT (circle appropriate box and enter casing height)	
A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED	H 23 24 26 30 32 36	49 LAND SURFACE (nearest)	
E ELECTRIC LOG OBTAINED TEST WELL CONVERTED TO PRODUCTION	C 3 R 38 39 41 45 47 51 E E SLOT SIZE 1 2 3	49 (Hearest) (Hearest) (1001)	
WELL HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND N CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE	DIAMETER (NEAREST OF SCREEN INCH)	LATITUDE 3 9. 27274 LONGITUDE 7 6. 93576	
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.	56 60 from to	(DEFAULT COORD. WGS 84) NOTES:	
DRILLERS LIC. NO. M LAD 355	GRAVEL PACK L	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)	MAS FLOWING WELL INSERT F IN BOX 68 MDE USE ONLY	Jan 18	
Derd Hul	(NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q	Dece \$ 10'	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)	70	/Horse	

B 1 18601 SEQUENCE NO.	STATE OF	MARYLAND	STATE PERMIT NUMBER
	APPLICATION FOR PERMIT TO DRILL WELL		HO-95-2399
	5000 de A pleas	e type	fill in this form completely 79
Date Received (APA)		B 3	LOCATION OF WELL
8 MM DD YY 13 OWNER INFOR	RMATION	HOWARD	
Que John		8 COUNTY	21
15 Last Name Owner	First Name 34	23 SUBDIVISION	42
12206 CALCON	m.11 RB	2	57
36 Street or RFD	2.51.0	SECTION 44 46	LOT 48 50
57 Town 70 State	72 Zip 76	WEST F	riendship
DRILLER INFORMATION		52 NEAREST TOWN	71
	1 WD355		
Driller's Name	6 License No. 81	B 4 SOURCES OF DRILLING WATER	12206 CATTON M-11 RB
Firm Name	1.0	1. We	11 STREET ADDRESS 30
522 Underland La	2 21014	2.	ON WHICH SIDE OF ROAD
Address	100	3.	(CIRCLE APPROPRIATE BOX)
	1-9-12	1	34 7 50 37 WEST SEEST
B 2 WELL INFORMATION	Date		DISTANCE FROM ROAD
1 2 APPROX. PUMPING RATE —	B 12	}	ENTER FT OR MI 38 39
AVERAGE DAILY QUANTITY NEEDED	0		TAX MAP: 23 BLK: 7 PARCEL 89
(GAL PER DAY) 14	20	NOT TO	BE FILLED IN BY DRILLER
USE FOR WATER (CIRCLE AP D DOMESTIC POTABLE SUPPLY & RESIDE			DEPARTMENT APPROVAL
IRRIGATION		11	(13) P27012
F FARMING (LIVESTOCK WATERING & AGI IRRIGATION)	RICULTURAL	COUNTY NAME	COUNTY NO.
22 I INDUSTRIAL, COMMERCIAL, DEWATERI	NG	STATE SIGNATURE	INSERT S
P PUBLIC WATER SUPPLY WELL		DATE/ISSUED	(A)
T TEST, OBSERVATION, MONITORING		9/26/2012	Brian Daber 9/26/2013
O OPEN LOOP GEOTHERMAL C CLOSED LOOP GEOTHERMAL 2		43 MM 00 YY 48	CO SIGNATURE /EXP. DATE
C CLOSED LOOP GEOTHERMAL 3	ores x 275		
273			ED LOCATION OF WELL ON LOT
APPROXIMATE DEPTH OF WELL 24	FEET 28		ICTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, MARKS AND INDICATE NOT LESS THAN TWO
APPROXIMATE DIAMETER OF WELL	NEAREST INCH	DISTAN	CE MEASUREMENTS TO WELL
		810 520	5.
METHOD OF DRILLING	THE PARTY NAMED IN THE PARTY NAM	1 1	-\frac{1}{20}
BORED (or Augered) 30 AIR-ROTary AIR-PERcussion	Jetted & <u>DRIVEN</u> ROTARY (Hydraulic Rotary)	1 - 1 - 1 - 1 - 1	and the same of th
37 CABLE REVerse-ROTary	DRive-POINT	1	7
other	U	1	
REPLACEMENT OR DEEPE		Chan	
(CIRCLE APPROPRIATE	- 1	CAROLL	Service of a few man the service of
THIS WELL WILL DESIGNED AND AND AND AND AND AND AND AND AND AN	- 4	11:00	82
ABANDONED AND SEALED		1.1.11	(X)
39 S THIS WELL WILL REPLACE A WELL THAT AS A STANDBY-CONTACT LOCAL APPROV			
FOR POLICY ON STANDBY WELLS			
THIS WELL WILL DEEPEN AN EXISTING W PERMIT NUMBER OF WELL TO BE REPLACED O			1
(IF AVAILABLE) 41	52	N	
Not to be filled in by driller (MDE OR C	COUNTY USE ONLY)	1	5
ADDOOR DEDMIT NUMBER	G	1	Blue /
APPROP. PERMIT NUMBER		Berson	03
PERMIT No.	95 -2399	Pers	K.o.
SPECIAL CONDITIONS	2 73 74 75 76 77 78 79	1	
NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED=	A. C. C.		₩

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 September 9, 2012

Fax: 410-313-2648

Re: 12206 Carroll Mill Road, Ellicott City

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"

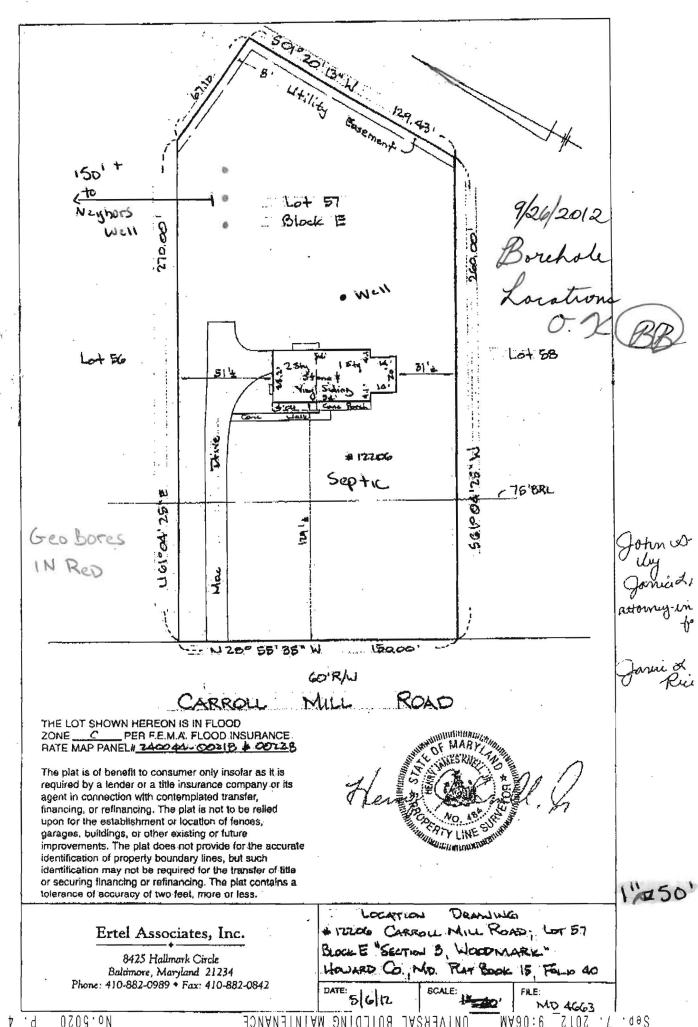
IGSHPA Certification Number 12687

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,

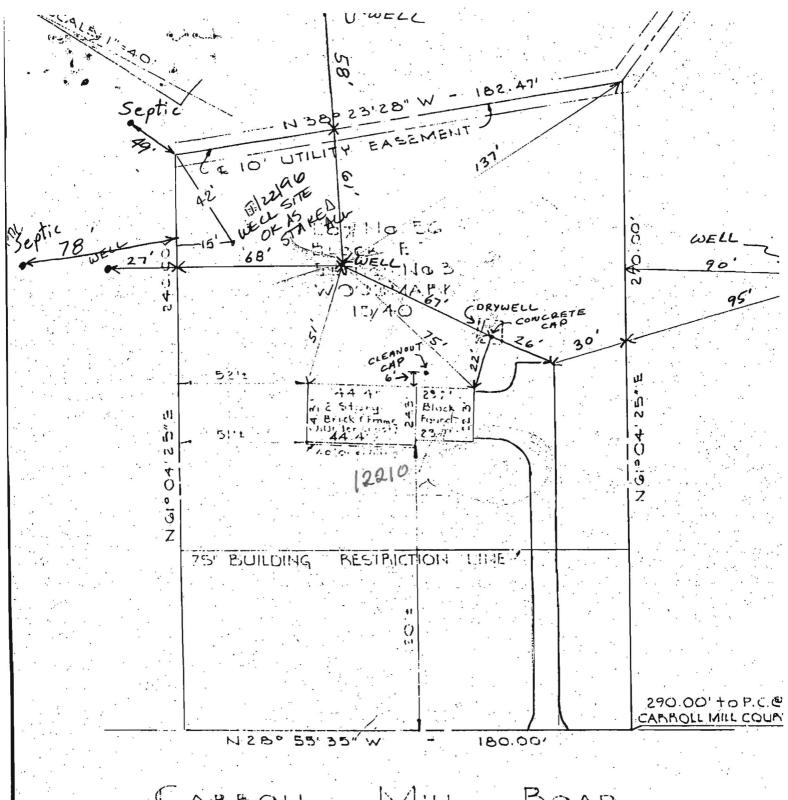
Michael Barlow



020g.oN

UNIVERSAL BUILDING MAINTENANCE

MA30:8 _SIOS .7 .998



MILL

GREGORY RESIDENCE 12210 CARROL MILL ROAD EllICOTT CITY MD.

This is to certify that I have surveyed the property known as Lot No. 56 - Block E' - Section No. 3.

WOODMARK: Third Election District, Howard County, Moryland

for the purpose of locating the improvements thereon, and the improvements are located as shown.

Signed this 26 TH day of

PURDUM AND JESCHKE

