

C1 1433		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 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)								COUNTY NUMBER			
ST/CO USE ONLY DATE Received MM DD YY 6 01 11 13		DATE WELL COMPLETED MM DD YY 11 16 10		Depth of Well 22 375 26 (TO NEAREST FOOT)		3/10/11		PERMIT NO. FROM "PERMIT TO DRILL WELL" HO 45-2011			
OWNER MARSHALL, JACK		STREET OR RFD 1812 DIAMETER HOUSE DR		TOWN WIDESTOCK		SUBDIVISION DICKSNE		SECTION 12		LOT 12	
WELL LOG Not required for driven wells STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING				GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 45 46 16 NO. OF POUNDS 45 46 350 GALLONS OF WATER 358 DEPTH OF GROUT SEAL (to nearest foot) from 48 TOP 52 ft. to 54 BOTTOM 58 ft. (enter 0 if from surface)				C3 1 2 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			
DESCRIPTION (Use additional sheets if needed)				FEET FROM TO check if water bearing				Casing types insert appropriate code below ST STEEL CO CONCRETE PL PLASTIC OT OTHER MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) 60 61 63 64 66 70 Total depth of main casing (nearest foot) OTHER CASING (if used) diameter inch depth (feet) from to EACH CASING			
Soil 0 5 Red clay 5 12 Brown shale 12 25 Boulders 25 42 Granite 42 375				2x 375' 6" BORES				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 2 E 1 8 9 11 15 17 21 A 2 23 24 26 30 32 36 C 3 38 39 41 45 47 51 S R E N SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to			
NUMBER OF UNSUCCESSFUL WELLS: 0				WELL HYDROFRACTURED yes Y no N				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) + above - below LAND SURFACE (nearest foot) 49 50 51			
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 MW D 333 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 D				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 70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA			
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)				COUNTY				LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) House 75' 55' 49' 15'			

B 1	4660	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type	STATE PERMIT NUMBER <u>HO-95-2011</u> fill in this form completely
<div style="display: flex; justify-content: space-between;"> <div style="width:45%;"> <p>Date Received (APA) <u>09 10 10</u></p> <p>8 MM DD YY 13</p> <p><u>Marshall</u> <u>Jack</u></p> <p>15 Last Name Owner First Name 34</p> <p><u>1812 Quarter horse Drive</u></p> <p>36 Street or RFD 55</p> <p><u>Woodstock</u> <u>MD</u> <u>21163</u></p> <p>57 Town 70 State 72 Zip 76</p> <p>DRILLER INFORMATION</p> <p><u>Michael Barlow</u> <u>M W D 355</u></p> <p>Driller's Name 76 License No. 81</p> <p><u>Barlow Well Drilling</u></p> <p>Firm Name</p> <p><u>522 Underwood Lane 21014</u></p> <p>Address</p> <p><u>[Signature]</u> <u>9/9/10</u></p> <p>Signature Date</p> </div> <div style="width:50%;"> <p>LOCATION OF WELL</p> <p><u>Howard</u></p> <p>8 COUNTY 21</p> <p><u>Parkside</u></p> <p>23 SUBDIVISION 42</p> <p>SECTION <u>44</u> <u>46</u> LOT <u>12</u> <u>48</u> <u>50</u></p> <p><u>Woodstock</u></p> <p>52 NEAREST TOWN 71</p> <p>MILES FROM TOWN (enter 0 if in town) <u>0</u> M I</p> <p>73 76 77 78</p> </div> </div>				
<div style="display: flex; justify-content: space-between;"> <div style="width:45%;"> <p>WELL INFORMATION</p> <p>APPROX. PUMPING RATE (GAL. PER MIN.) <u>0</u></p> <p>8 12</p> <p>AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <u>0</u></p> <p>14 20</p> <p>USE FOR WATER (CIRCLE APPROPRIATE BOX)</p> <p><input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION</p> <p><input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)</p> <p><input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING</p> <p><input type="checkbox"/> PUBLIC WATER SUPPLY WELL</p> <p><input type="checkbox"/> TEST, OBSERVATION, MONITORING</p> <p><input checked="" type="checkbox"/> GEO-THERMAL <u>2 bores x 375</u></p> </div> <div style="width:50%;"> <p>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</p> <p><u>Howard</u> <u>(13)</u> <u>A44273</u></p> <p>COUNTY NAME COUNTY NO.</p> <p>STATE SIGNATURE INSERT S →</p> <p>DATE ISSUED <u>9/29/2010</u> <u>Brian Baker</u> <u>9/29/2011</u></p> <p>43 MM DD YY 48 CO SIGNATURE EXP. DATE</p> <p>NORTH GRID <u>542</u> <u>000</u> EAST GRID <u>833</u> <u>000</u></p> <p>50 55 57 63</p> </div> </div>				
<p>APPROXIMATE DEPTH OF WELL <u>375</u> FEET</p> <p>24 28</p> <p>APPROXIMATE DIAMETER OF WELL <u>6</u> INCH</p> <p>METHOD OF DRILLING (circle one)</p> <p>BORED (or Augered) JETTED Jetted & DRIVEN</p> <p>30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)</p> <p>37 CABLE REVERSE-ROTary DRIVE-POINT</p> <p>other</p> <p>REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)</p> <p><input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL</p> <p><input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</p> <p>39 <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</p> <p><input type="checkbox"/> THIS WELL WILL DEEPEM AN EXISTING WELL</p> <p>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52</p> <p>Not to be filled in by driller (MDE OR COUNTY USE ONLY)</p> <p>APPROX. PERMIT NUMBER _____ G _____</p> <p>PERMIT No. <u>HO-95-2011</u></p> <p>70 71 72 73 74 75 76 77 78 79</p>				
<p>SPECIAL CONDITIONS</p> <p>NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED *</p>				

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD (1812) Quarter horse Drive

DISTANCE FROM ROAD 70

ENTER FT OR MI FT

TAX MAP: 10 **BLK:** 23 **PARCEL:** 36

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. Potable well

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 833

N 542

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

16.0'

24.3'

23.7'

7.7'

8.0'

SCALE: 1"=20'

10' DRAINAGE & UTILITY
EASEMENT

R=50.00', L=51.34'

R=25.00', L=21.03'

302.27'

353°16'29"E, 70.00'

25' WETLANDS BUFFER

25' WETLANDS
BUFFER

LOT 12

PRIVATE SEWAGE
EASEMENTSEE HOUSE
DETAIL25' WETLANDS
BUFFER

25' WETLANDS BUFFER

WETLANDS, DRAINAGE
AND UTILITY EASEMENT

N 76°54'05"E

370.87'

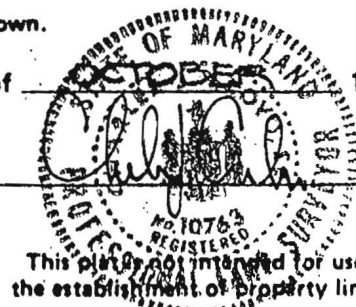
BRL - BUILDING RESTRICTION LINE

NOTE - THIS PROPERTY IS NOT LOCATED WITHIN A
100 YEAR FLOODPLAIN.

1" = 100

Geo bones
WellThis is to certify that I have surveyed the property known as: LOT 12 OF PARKSIDE RECORDED AS PLAT #
9682 AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND.

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

Signed this 24TH day of OCTOBER 19 91FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21043
(301) 461-2855



Providing Quality Systems for Over 20 Years
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Test Borings & Consulting • Geothermal Drilling & Systems
NGWA & IGSHPA Certified

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

September 9, 2010

Re: 1812 Quarter Horse Drive

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

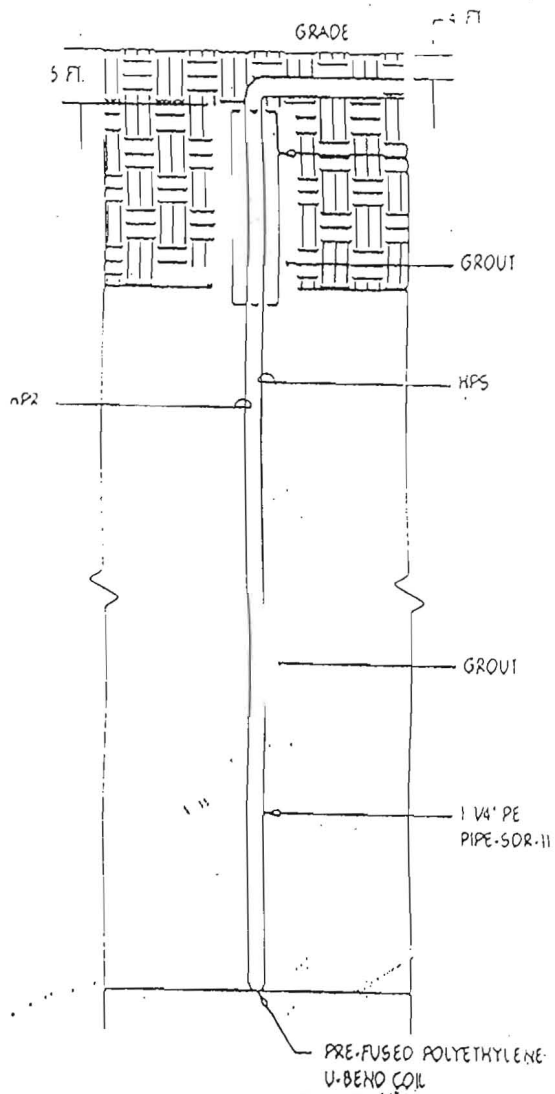
Also attached is a cross section diagram of the bore hole.

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,

A handwritten signature in black ink, appearing to read "Michael Barlow", written over a horizontal line.

Michael Barlow



4
M1.00

TYPICAL BORE HOLE DETAIL
NOT TO SCALE