

B 1	4648	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 533979 please type	STATE PERMIT NUMBER HO-95-1978 fill in this form completely
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OWNER INFORMATION

Date Received (APA) 08 19 10
8 MM 00 YY 13

15 Last Name Abraham Owner Jim First Name 34
36 Street or RFD 3847 Ross Rd 55
57 Town Ellicott City 70 State MD 72 Zip 21043 76

LOCATION OF WELL

B 3 Howard 8 COUNTY 21
Cahill Property 23 SUBDIVISION 42
SECTION 44 46 LOT 2 48 50
Ellicott City 52. NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) 0 M 11
73 76 77 78

DRILLER INFORMATION

Driller's Name Michael Barlow 76 License No. MWD355 81
Firm Name Barlow Well Drilling
Address 522 Underwood Lane 2104
Signature [Signature] Date 8-16-10

WELL INFORMATION

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
11 NEAR WHAT ROAD 3847 Ross Rd 30
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
34 50 37 DISTANCE FROM ROAD FT 38 39
ENTER FT OR MI
TAX MAP: 251 BLK: 24 PARCEL: 329

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 0 8 12
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 0 14 20

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
 G GEO-THERMAL 3 bores x 400'

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard (13) Public
COUNTY NAME COUNTY NO.
STATE SIGNATURE _____ INSERT S →
DATE ISSUED 8/31/2010 Brian Baker 8/31/2011
43 MM 00 YY 48 CO SIGNATURE EXP. DATE
NORTH GRID 522 000 EAST GRID 858 000
50 55 57 63

APPROXIMATE DEPTH OF WELL 400 FEET 24 28
APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST
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 _____

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. _____
2. _____
3. _____
WRITE THE BOX NUMBER FROM THE MAP HERE
E 858
N 5202

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
39 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 DEEPEMED AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52

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

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

APPROP. PERMIT NUMBER _____ G _____
PERMIT No. HO-95-1978
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS
NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

C 1 6684

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED

Depth of Well 400 10/12/11

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-05-1978

OWNER Abraham Drug STREET OR RFD 2847 ROSS RD TOWN ELICOTT CITY SUBDIVISION

WELL LOG Not required for driven wells

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes handwritten entries: Brown Micaceous Soil, Light Brown Micaceous Soil, med. sand, gray clays.

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 83 NO. OF POUNDS 4150

CASING RECORD MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)

OTHER CASING (if used) diameter inch depth (feet) from to

SCREEN RECORD screen type or open hole (insert appropriate code below) ST BR HO PL OT

DEPTH (nearest ft.) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

NUMBER OF UNSUCCESSFUL WELLS: 2 WELL HYDROFRACTURED Y N

CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION"

DRILLERS LIC. NO. 1 M M D 355 DRILLERS SIGNATURE LIC. NO. 1 M S D Aleo

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

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

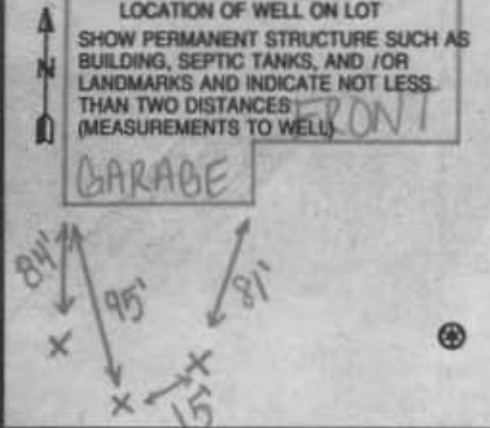
C 3 PUMPING TEST

HOURS PUMPED (nearest hour) 8.5 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.

PUMP INSTALLED DRILLER INSTALLED PUMP YES NO (CIRCLE) (YES or NO)

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 - below (nearest foot)





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

August 16, 2010

Re: 3847 Ross Road

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

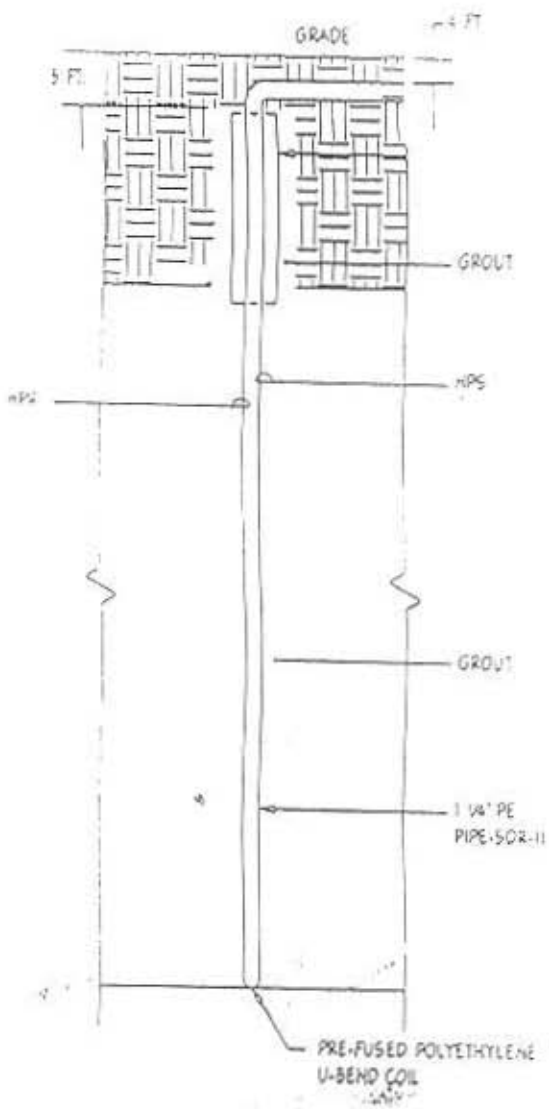
Piping: Polyethylene SDR 11 160 PSI as recommended per IGSHA
Manufacture: EnDot or Charter Plastics or equal, Size 1" or 1 1/4"
IGSHA Certification Number 12687

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



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 TYPICAL BORE HOLE DETAIL
 1/100 NOT TO SCALE