

C1 2991

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

COUNTY NUMBER

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 05/10/10

Depth of Well 300 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1880

OWNER: KARY KIMBARY last name first name TOWN: Columbia

WELL LOG Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes handwritten entries: Soil, Soft tan Shale, Hard gray rock, 2x300' geothermal boras.

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC

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)

OTHER CASING (if used) 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

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 WHEN PUMPING 22.25

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

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

CIRCLE APPROPRIATE LETTER 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.

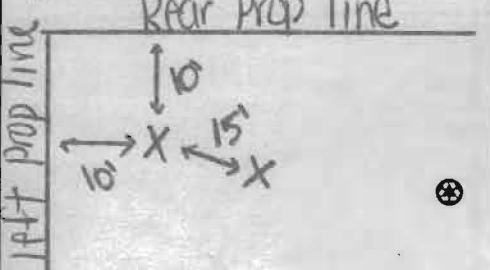
DRILLERS LIC. NO. MW D 3553 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. MW D 5539

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 SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to

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

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)



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

TELESCOPE CASING LOG INDICATOR OTHER DATA

B 1	3171	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 532561 please type	STATE PERMIT NUMBER <u>HO-95-1880</u> <small>70 fill in this form completely 79</small>
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OWNER INFORMATION

Date Received (APA) _____

8 MM DD YY 13

15 Last Name Kerry Owner Kimberly First Name _____ 34

36 Street or RFD 10013 Herding Row 55

57 Town Columbia 70 State MD 72 Zip 21046 76

LOCATION OF WELL

B 3 Howard

8 COUNTY _____ 21

23 SUBDIVISION Village of Kings Contrivance 42

SECTION 1 44 46 LOT 144 48 50

52 NEAREST TOWN Columbia 71

MILES FROM TOWN (enter 0 if in town) 2 M I 73 76 77 78

DRILLER INFORMATION

Driller's Name Michael Barlow 76 License No. MW D 355 81

Firm Name Barlow Well Drilling

Address 522 Underwood Lane 21014

Signature [Signature] 3/16/10 Date

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

11 NEAR WHAT ROAD 10013 Herding Row 30

34 200 37 DISTANCE FROM ROAD FT

ENTER FT OR MI 38 39

TAX MAP: 42 BLK: 1 PARCEL 422

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)

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 2x300'

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 Public

COUNTY NAME _____ COUNTY NO. _____

STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED 3/30/2010 CO SIGNATURE Brian Baden 3/30/2010 EXP. DATE

43 MM DD YY 48 NORTH GRID H91 000 EAST GRID 840 000

50 55 57 63

APPROXIMATE DEPTH OF WELL 300 FEET 24 28

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

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 _____

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 DEEPEAN AN EXISTING WELL

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

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

APPROP. PERMIT NUMBER _____ G _____

PERMIT No. HO-95-1880
70 71 72 73 74 75 76 77 78 79

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 840

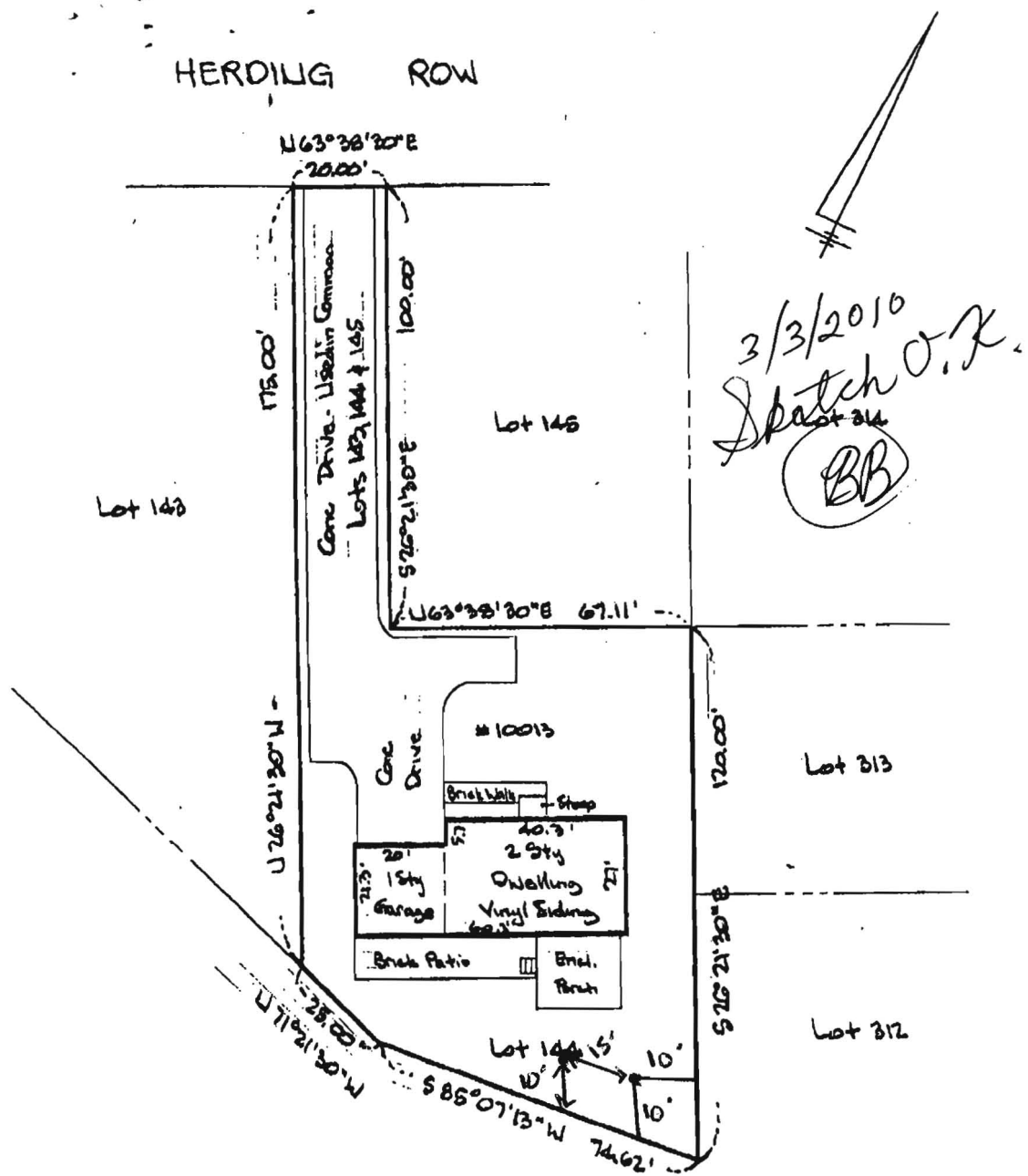
N 4901

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

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Grout Boreholes From Bottom 32' upward with 4" Femie Pipe



THE LOT SHOWN HEREON IS IN FLOOD ZONE C PER F.E.M.A. FLOOD INSURANCE RATE MAP PANEL # 240044-0039B

The plat is of benefit to consumer only insofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing, or refinancing. The plat is not to be relied upon for the establishment or location of fences, garages, buildings, or other existing or future improvements. The plat does not provide for the accurate identification of property boundary lines, but such identification may not be required for the transfer of title or securing financing or refinancing. The plat contains a tolerance of accuracy of two feet, more or less.

Henry B. Shell, Jr.

Ertel Associates, Inc.

8425 Hallmark Circle
 Baltimore, Maryland 21234
 Phone: 410-882-0989 • Fax: 410-882-0842

LOCATION DRAWING
 #10013 HERDING ROW; LOT 144 COLUMBIA,
 VILLAGE KINGS CONTRIVANCE, S.I.A.I., SUR 7009"
 HOWARD CO, MD. PLAT CMP # 3581

DATE: 8/19/03	SCALE: 1"=20'	FILE: 03-11220
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03-11220



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

March 17, 2010

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

Re: 10013 Herding Row, 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

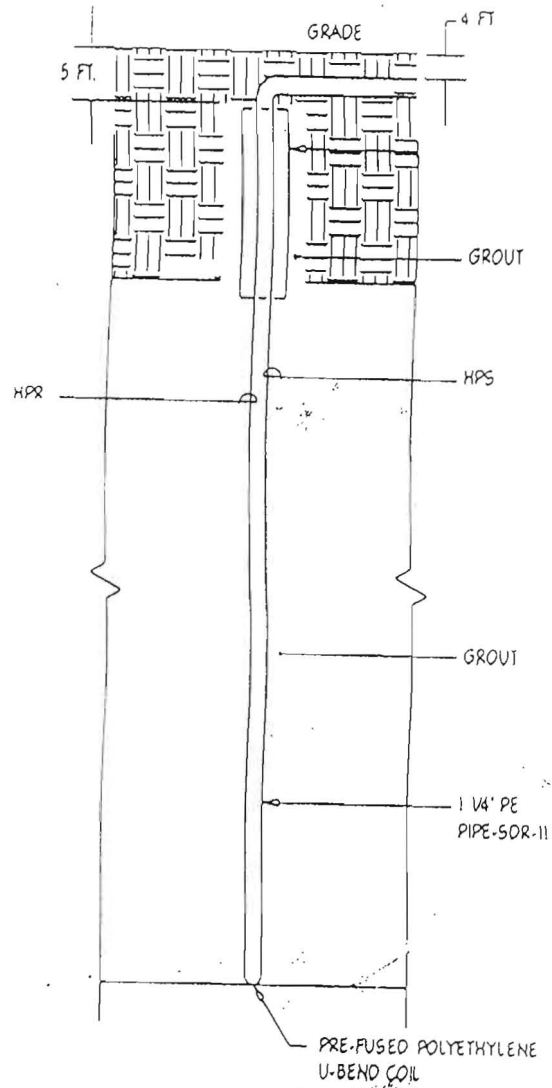
Piping: Polyethylene SDR 11 160 PSI as recommended per IGSHPA
Manufacture: EnDot or Charter Plastics or equal, Size 1" or 1 1/4"
IGSHPA Certification Number 12687

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



4
MI.00

TYPICAL BORE HOLE DETAIL
NOT TO SCALE

10:00:00