

C1 0126

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 13 A26157

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

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED 05 11 06

Depth of Well 22 310 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-0144

OWNER Kneeland Paul STREET OR RFD 5789 Harris Farm Lane TOWN Clarksville SUBDIVISION SECTION LOT Parcel 8A

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Includes handwritten entries: Pit + soft & Brown Hard Grey, 0-3, 3-47, 47-310.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) NO (N) TYPE OF GROUTING MATERIAL (Cement CM, Bentonite Clay BC) NO. OF BAGS 14 NO. OF POUNDS 720 GALLONS OF WATER 360 DEPTH OF GROUT SEAL (to nearest foot) from 0 to 310 ft.

CASING RECORD

Case types insert appropriate code below: MAIN CASING TYPE ST (STEEL) CO (CONCRETE) PL (PLASTIC) OT (OTHER). Includes nominal diameter and total depth of main casing.

OTHER CASING (if used)

Table for other casing with columns for diameter (inch) and depth (feet).

SCREEN RECORD

screen type or open hole: insert appropriate code below: ST (STEEL), BR (BRASS BRONZE), PL (PLASTIC), HO (OPEN HOLE), OT (OTHER).

DEPTH (nearest ft.)

Table for depth with columns for casing type (E, A, C, H, S, R, E, N) and depth ranges.

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 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), J (jet), S (submersible).

PUMP INSTALLED

DRILLER INSTALLED PUMP (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 LAND SURFACE - below (nearest foot) 49 51

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)



B 1 6521

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER 40-95-0144

OWNER INFORMATION: Date Received (APA) 10/11/2005, Kneeland Paul, 5489 Harris Farm Lane, Clarksville, MD 21029

LOCATION OF WELL: Howard County, Parcel 8A, Clarksville

DRILLER INFORMATION: Michael Barlow, MW D 355, Michael Barlow Well Drilling Svc, 522 Underwood Ln, Belair MD 21014, 9/30/05

DIRECTION OF WELL FROM TOWN (CIRCLE BOX) and ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

WELL INFORMATION: APPROX. PUMPING RATE (GAL. PER MIN.) 0, AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 000

TAX MAP: 28 BLK: 20 PARCEL 279

USE FOR WATER (CIRCLE APPROPRIATE BOX): G GEO-THERMAL 2 @ 310' - 205' - 225'

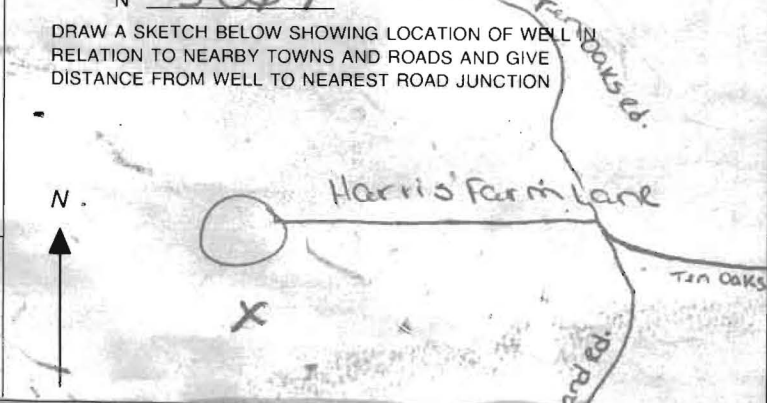
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL: Howard (13) A26157, Brian Baber 10/14/2006

APPROXIMATE DEPTH OF WELL 300 FEET, APPROXIMATE DIAMETER OF WELL 6 INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X, SOURCES OF DRILLING WATER, WRITE THE BOX NUMBER FROM THE MAP HERE

METHOD OF DRILLING (circle one): AIR-PERCussion

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX): N THIS WELL WILL NOT REPLACE AN EXISTING WELL



Not to be filled in by driller (MDE OR COUNTY USE ONLY): APPROP. PERMIT NUMBER G, PERMIT NO. 40-95-0144

SPECIAL CONDITIONS: Submit 1 Completion Report For Each Well

0128

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)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER 13 A 26157

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY 5/4/06

Depth of Well 220 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-0144

OWNER Kneeland Paul STREET OR RFD 5789 Harris Farm Lane TOWN Clarksville SUBDIVISION SECTION LOT Parcel 8A

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes handwritten entries: Dirt, Soft Brown, Hard Grey.

GROUTING RECORD YES NO Y N TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 10 NO. OF POUNDS 300

CASING RECORD casing types insert appropriate code below 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 SCREEN RECORD ST BR HO PL OT

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO Y N

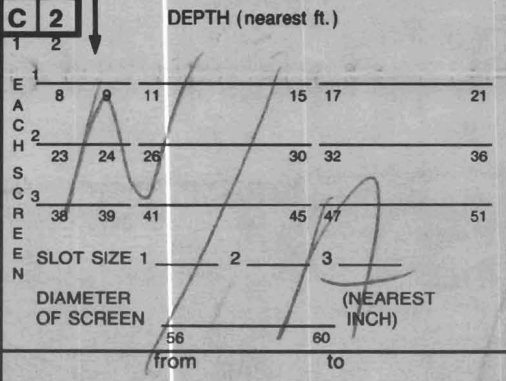
CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL

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...

DRILLERS LIC. NO. 1 M DD 355 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

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

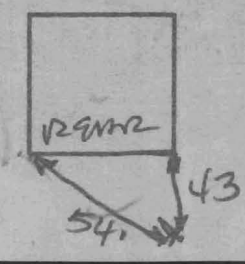
PUMPING TEST C 3 HOURS PUMPED (nearest hour) 8 PUMPING RATE (gal. per min.) 11 15 METHOD USED TO MEASURE PUMPING RATE WATER LEVEL (distance from land surface) BEFORE PUMPING 17 20 WHEN PUMPING 22 25 TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other (describe below) 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) + above - below LAND SURFACE (nearest foot)

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)



0127  
 SEQUENCE NO. (MDE USE ONLY)  
 THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS

**STATE OF MARYLAND**  
**WELL COMPLETION REPORT**  
 FILL IN THIS FORM COMPLETELY  
 PLEASE TYPE

PROVIDE THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.  
 COUNTY NUMBER **(13) A26157**

ST/CO USE ONLY  
 DATE RECEIVED  
 MM DD YY  
 8 13

DATE WELL COMPLETED  
 MM DD YY  
 5/4/06  
 Depth of Well  
 22 220 26  
 (TO NEAREST FOOT)  
 O.K. **(AB)**

PERMIT NO.  
 FROM "PERMIT TO DRILL WELL"  
 40-95-0144

OWNER Kneeland Paul  
 STREET OR RFD 5489 Harris Farm Lane TOWN Clarksville  
 SUBDIVISION \_\_\_\_\_ SECTION \_\_\_\_\_ LOT Parcel 8A

**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	
Dirt	0	3	<input checked="" type="checkbox"/>
Soft Brown	3	53	<input checked="" type="checkbox"/>
Hard Grey	53	220	<input checked="" type="checkbox"/>

**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 10 NO. OF POUNDS 510  
 GALLONS OF WATER 365  
 DEPTH OF GROUT SEAL (to nearest foot)  
 from 0 ft. to 220 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)**  
 diameter depth (feet)  
 inch from to

**SCREEN RECORD**  
 screen type or open hole (insert appropriate code below)  
**ST** STEEL **BR** BRASS **HO** OPEN HOLE  
**PL** PLASTIC **OT** OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0

**C 2** DEPTH (nearest ft.)

E	8	9	11	15	17	21
A						
C	23	24	26	30	32	36
H						
S	38	39	41	45	47	51
R						
E						
N						

SLOT SIZE 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_  
 DIAMETER OF SCREEN \_\_\_\_\_ (NEAREST INCH)  
 from \_\_\_\_\_ to \_\_\_\_\_

WELL HYDROFRACTURED **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. M 20355  
 DRILLERS SIGNATURE  
 (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

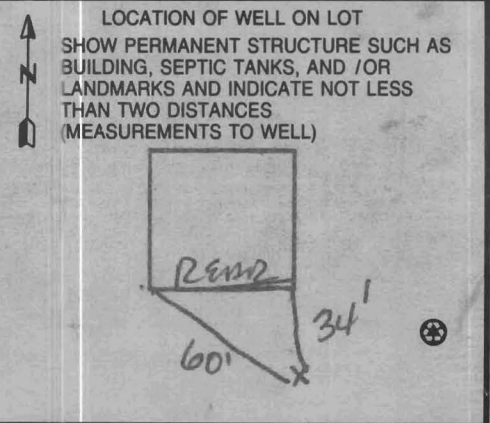
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68  
533611:00

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

**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 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 **N**  
 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 51



0125

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 13 A26157

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 05 11 06

Depth of Well 310

PERMIT NO. 9/29/06 FROM "PERMIT TO DRILL WELL" HO-95-0144

OWNER Kneeland Paul STREET OR RFD 5789 Harris Farm Lane TOWN Clarksville SUBDIVISION SECTION LOT Parcel 8A

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes handwritten entries: 0-3 Dint, 3-49 Soft Brown, 49-310 Hard Grey.

GROUTING RECORD form with fields for CEMENT (CM), BENTONITE CLAY (BC), NO. OF BAGS (15), NO. OF POUNDS (719), GALLONS OF WATER (360), DEPTH OF GROUT SEAL (0 to 310).

CASING RECORD form with fields for MAIN CASING TYPE (ST), Nominal diameter (63), Total depth (66).

OTHER CASING table with columns: diameter inch, depth (feet) from, to.

SCREEN RECORD form with fields for screen type (ST), BRASS (BR), OPEN HOLE (HO), PLASTIC (PL), OTHER (OT).

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES (Y) NO (N)

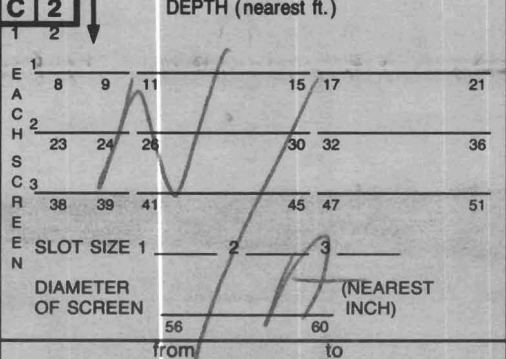
- CIRCLE APPROPRIATE LETTER: A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED, E ELECTRIC LOG OBTAINED, P TEST WELL CONVERTED TO PRODUCTION WELL.

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...

DRILLERS LIC. NO. 1 MD D 355 DRILLERS SIGNATURE

LIC. NO. 1 D

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

PUMPING TEST form with fields for HOURS PUMPED (8-9), PUMPING RATE (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 (P piston).

PUMP INSTALLED DRILLER INSTALLED PUMP 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.

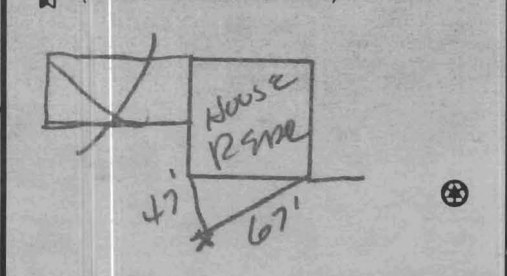
CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

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)

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)



# FILE INQUIRY FORM

Property Address: 10/31/05 The Geothermal well  
locations have been changed due to proposed  
add. I called Barb's office + left message  
to make sure he knew about the new well  
location. (KTB)