

C1 36832 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.

COUNTY NUMBER 13

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY DATE Received MM DD 10 11 13

DATE WELL COMPLETED MM DD YY 09 29 2016

Depth of Well 22 500 26 (TO NEAREST FOOT) PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-15-0297

OWNER Treat Ned WELL SITE ADDRESS 3349 Hipsley Mill Road TOWN Woodbine, MD 21797

WELL LOG Not required for driven wells

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries: Silty Clay, Trace of clay, Trace of mica, Weathered Rock, Rock Hard Gray, 8gpm at 360', Installed (2) 1" geothermal closed loops, Guard Piping *

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (N) TYPE OF GROUTING MATERIAL (C) (M) (B) (C) NO. OF BAGS 28 NO. OF POUNDS 1400 GALLONS OF WATER 700 DEPTH OF GROUT SEAL (to nearest foot) from 3 to 500

CASING RECORD

MAIN CASING TYPE (S) (C) (P) (O) 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 (S) (B) (H) (P) (O) diameter of screen (nearest inch) from to

C3 PUMPING TEST

HOURS PUMPED (nearest hour) N/A PUMPING RATE (gal. per min.) N/A METHOD USED TO MEASURE PUMPING RATE N/A WATER LEVEL (distance from land surface) BEFORE PUMPING 100 ft. WHEN PUMPING N/A 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 (CIRCLE) (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) N/A PUMP HORSE POWER N/A PUMP COLUMN LENGTH (nearest ft.) N/A CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE 3 (nearest foot)

NUMBER OF UNSUCCESSFUL WELLS: 0

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...

DRILLERS LIC. NO. 1 MWD 567 DRILLERS SIGNATURE LIC. NO. 1 D

C2 DEPTH (nearest ft.)

Table with columns: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76

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

LATITUDE 39.281313 LONGITUDE -77.093607 (DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed.

| | | | |
|------------|---|---|---|
| B 1 | SEQUENCE NO. (MDE USE ONLY) 43389 | STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 558834 please type | STATE PERMIT NUMBER HO-15-0297 <small>70 fill in this form completely 79</small> |
|------------|---|---|---|

OWNER INFORMATION

Date Received (APA) **08/11/16**

8 MM DD YY 13

15 Last Name **Treat** First Name **Ned** 34

36 Street or RFD **3349 Hipsley Mill Road** 55

57 Town **Woodbine** 70 State **Maryland** 72 Zip **21797** 76

B 3 LOCATION OF WELL

8 COUNTY **Howard** 21

23 SUBDIVISION _____ 42

SECTION **44** 46 LOT **48** 50

52 NEAREST TOWN **Woodbine** 71

DRILLER INFORMATION

Driller's Name **Jeff Corran** 76 License No. **MWD 567** 81

Firm Name **Chesapeake Geosystems, Inc.**

Address **6720 Fort Smallwood Rd Balt.**

Signature **[Signature]** 8/11/16 Date

B 4 SOURCES OF DRILLING WATER

11 STREET ADDRESS **3349 Hipsley Mill Road** 30

1. **municipal**

2. _____

3. _____

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 **100** 37 DISTANCE FROM ROAD **100** FT 38 39

ENTER FT OR MI

TAX MAP: **20** BLK: **4** PARCEL **71**

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) **N/A** 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) **N/A** 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard **13** COUNTY NAME COUNTY NO.

STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED **8/24/16** **[Signature]** **8/24/17** 43 MM DD YY 48 CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL **500'** FEET 24 28

APPROXIMATE DIAMETER OF WELL **6** NEAREST INCH

PROPOSED LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL

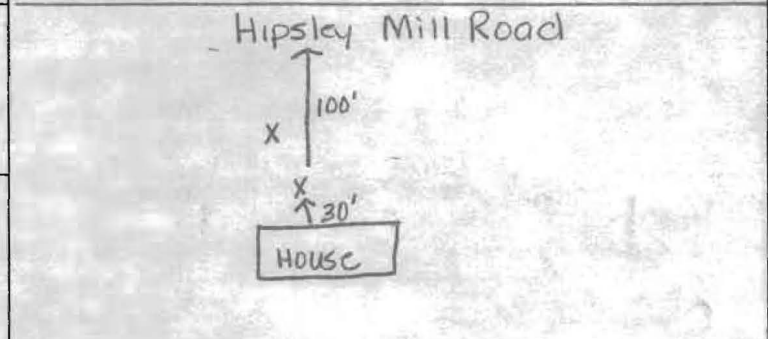
METHOD OF DRILLING (circle one)

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)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS

THIS WELL WILL DEEPEM 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)

APPROX. PERMIT NUMBER _____ **G** _____

PERMIT No. **HO-15-0297** 70 71 72 73 74 75 76 77 78 79

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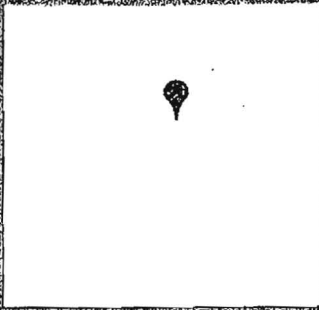
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SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

39-281313 -77-093607

Ordered By:



PROPERTY ADDRESS: 3349 HIPSLEY MILL ROAD WOODBINE, Maryland 21797

SURVEY NUMBER: MD1103.1921

FIELD WORK DATE: 3/29/2011

REVISION HISTORY: (rev.1 4/1/2011) (rev.1 3/30/2011)

1103.1921
LOCATION DRAWING
LIBER 676, FOLIO 21
HOWARD COUNTY, MARYLAND
03-30-2011 SCALE 1"=120'

*2 wells @ 500'
1" Factory U-Bends
Geothermal closed
Loops*

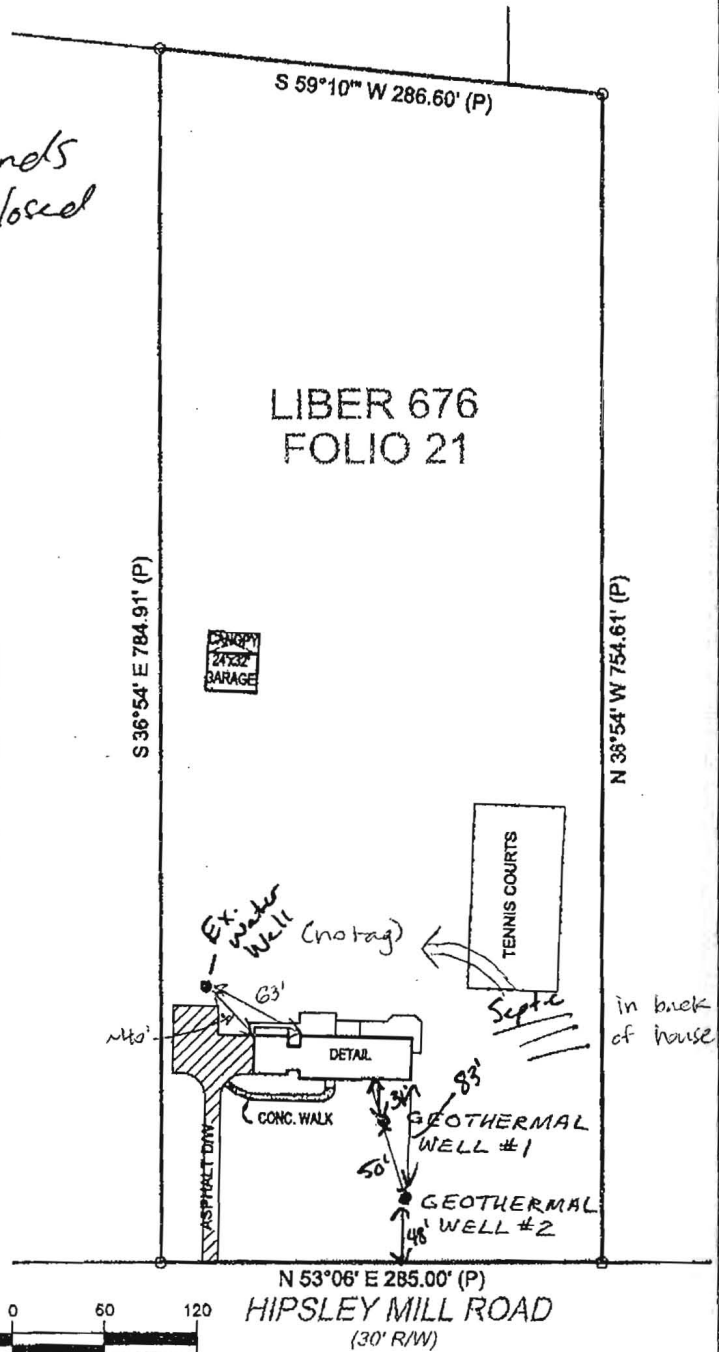


*Well sites OK
8/24/16 SC*

DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

HO-15-0297

INFORMATION-GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD
BALTIMORE MARYLAND, 21230



John E. Kroboth



GRAPHIC SCALE (In Feet)
1 inch = 120' ft.

It is certified, This is Page One of a two page document. This document is not valid without all pages.

POINTS OF INTEREST:

FILE INQUIRY NOTES

| DATE | RESULTS OF REVIEW FOR FILE |
|---------|---|
| 8/23/16 | Site visit to confirm stakes + setbacks. Both wells okay as staked. |
| | Homeowner mentioned something about installing 2 loops per bore - spoke with Wes @ Chesapeake. (Sc) |
| 8/24/16 | Spoke with Wes - they may install either 1 x 1/4" loop or 2 x 1" |
| | loops per bore. Homeowner is working on design with an engineer. Completion report will indicate what's installed. (Sc) |
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WELL SCHEMATIC FORM

PERMANENT OUTER CASING (if area contaminated)
 MATERIAL _____
 DIAMETER _____
 LENGTH _____
 DEPTH INTO CONFINING UNIT _____

TUBE CASING (if not regular, single loop)
 ATTACH HORIZONTAL SCHEMATIC _____
 NUMBER OF TUBES PER BOREHOLE 2
 DIAMETER OF TUBES 1"
 MATERIAL HDPE
 SHAPE AND LENGTH _____
 TUBE CONNECTION METHOD Fusion
 TUBE CONNECTION MATERIAL HDPE

LOOP PIPE CASING (regular, single loop)
 MATERIAL HDPE? YES NO
 DIAMETER 1"
 LENGTH 505'

GROUT
 MATERIAL Bentonite
 PERMEABILITY _____
 WATER / GROUT RATIO 24/50
 PERCENT SOLIDS _____
 TREMIE GROUTED FROM BOTTOM OF BOREHOLE? YES NO
 USING A POSITIVE DISPLACEMENT PUMP? YES NO

DEPTH TO THE BOTTOM OF HOLE 500'
 DIAMETER OF BOREHOLE 6"

WELL ADDRESS 3349
Hipsley Mill Rd
Woodbine Md

LOT NUMBER: _____
 SQUARE NUMBER: _____

WELL OWNER:
Ned Treat

OWNER ADDRESS:
3349 Hipsley
Mill Rd Woodbine
