

C1 28674 1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)	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.																																																																						
ST/CO USE ONLY DATE Received MM DD YY 8 13		DATE WELL COMPLETED MM DD YY 12 23 14																																																																							
OWNER <u>FREDERICK, KRISTA</u> WELL SITE ADDRESS <u>3606 WILLOW BIRCH TOWN GLENWOOD</u> SUBDIVISION <u>CATTAUGUE CTR CLUB</u> SECTION <u>7</u> LOT <u>7</u>		Depth of Well 22 540 26 (TO NEAREST FOOT)																																																																							
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) YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> BENTONITE CLAY <input type="checkbox"/> NO. OF BAGS <u>25</u> NO. OF POUNDS <u>1250</u> GALLONS OF WATER <u>575</u> DEPTH OF GROUT SEAL (to nearest foot) from <u>8</u> ft. to <u>54</u> ft. (enter 0 if from surface)																																																																							
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DESCRIPTION (Use additional sheets if needed)</th> <th colspan="2">FEET</th> <th rowspan="2">check if water bearing</th> </tr> <tr> <th>FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr> <td>Top Soil</td> <td>0</td> <td>2</td> <td></td> </tr> <tr> <td>Brown mica</td> <td>2</td> <td>15</td> <td></td> </tr> <tr> <td>tan sandy mica</td> <td>15</td> <td>45</td> <td></td> </tr> <tr> <td>Brown mica</td> <td>45</td> <td>60</td> <td></td> </tr> <tr> <td>Grey mica</td> <td>60</td> <td>542</td> <td>✓</td> </tr> </tbody> </table>		DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing	FROM	TO	Top Soil	0	2		Brown mica	2	15		tan sandy mica	15	45		Brown mica	45	60		Grey mica	60	542	✓	CASING RECORD casing types insert appropriate code below <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>ST STEEL</td> <td>CO CONCRETE</td> </tr> <tr> <td>PL PLASTIC</td> <td>OT OTHER</td> </tr> </table> MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>60</td> <td>61</td> <td>63</td> <td>64</td> <td>66</td> <td>70</td> </tr> </table>		ST STEEL	CO CONCRETE	PL PLASTIC	OT OTHER	60	61	63	64	66	70																																		
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25 bags x 26.3 gal/bag = 657 gal 657 gal = 1.22 gal/ft. ✓ 540'		OTHER CASING (if used) diameter inch depth (feet) from to E A C H C A S I N G																																																																							
575 gal water = 23 gal/bag ✓ 25 bags		SCREEN RECORD screen type or open hole insert appropriate code below <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>ST STEEL</td> <td>BR BRASS</td> <td>HO OPEN HOLE</td> </tr> <tr> <td></td> <td>PL PLASTIC</td> <td>OT OTHER</td> </tr> </table>		ST STEEL	BR BRASS	HO OPEN HOLE		PL PLASTIC	OT OTHER																																																																
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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				
WELL HYDROFRACTURED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		PUMPING TEST HOURS PUMPED (nearest hour) <u>8</u> PUMPING RATE (gal. per min.) <u>11</u> METHOD USED TO MEASURE PUMPING RATE WATER LEVEL (distance from land surface) BEFORE PUMPING <u>17</u> ft. WHEN PUMPING <u>22</u> 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																																																																							
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		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) <u>31</u> PUMP HORSE POWER <u>37</u> PUMP COLUMN LENGTH (nearest ft.) <u>43</u> CASING HEIGHT (circle appropriate box and enter casing height) + above } LAND SURFACE (nearest foot) - below }																																																																							
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.		LATITUDE <u>39.271736</u> LONGITUDE <u>77.046512</u> (DEFAULT COORD. WGS 84) NOTES:																																																																							
DRILLERS LIC. NO. <u>MWD 040</u> DRILLERS SIGNATURE <u>George F. Eshenling</u> (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. <u>WLD 064</u>		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																																																																							

11/3/2014

B 1	29297	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 555290 please type	STATE PERMIT NUMBER H0-14-0131 fill in this form completely
Date Received (APA) 10/27/14 8 MM DD YY 13		OWNER INFORMATION 12664		
FREDERIC KRISTA 15 Last Name Owner First Name 34 3606 WILLOW BIRCH DRIVE 36 Street or RFD 55 GLENWOOD, MD 21738 57 Town 70 State 72 Zip 76		LOCATION OF WELL CC# Howard 8 COUNTY 21 Cattail Creek Country Club 23 SUBDIVISION 42 SECTION 44 46 LOT 7 48 50 Glenwood 52 NEAREST TOWN 71		
DRILLER INFORMATION George F. Easterday M VD 040 Driller's Name 76 License No. 81 L. Franklin Easterday, Inc. Firm Name 9285 Brown Church Rd., Mt. Airy, Md. 21771 Address George F. Easterday 10/21/2014 Signature Date		B 4 SOURCES OF DRILLING WATER 1. wells 2. 3. 3606 Willow Birch Drive 11 STREET ADDRESS 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST EAST SOUTH 34 80 37 DISTANCE FROM ROAD Ft. ENTER FT OR MI 38 39 TAX MAP: 21 BLK: 8 PARCEL 211		
B 2 WELL INFORMATION APPROX. PUMPING RATE 5 (GAL. PER MIN.) 8 12 AVERAGE DAILY QUANTITY NEEDED 500 (GAL. PER DAY) 14 20		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard (13) A48092 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S → 41 DATE ISSUED 11/12/2014 Brian Baker 11/12/2015 43 MM DD YY 48 CO SIGNATURE EXP. DATE		
USE FOR WATER (CIRCLE APPROPRIATE BOX) 22 <input type="radio"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="radio"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="radio"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="radio"/> PUBLIC WATER SUPPLY WELL <input type="radio"/> TEST, OBSERVATION, MONITORING <input type="radio"/> OPEN LOOP GEOTHERMAL <input checked="" type="radio"/> CLOSED LOOP GEOTHERMAL		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 CATTAIL Creek Dr Glenwood WILLOW BIRCH Sofic CT N 97		
APPROXIMATE DEPTH OF WELL 600-800 FEET 24 28 APPROXIMATE DIAMETER OF WELL 8 INCH NEAREST INCH				
METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN 36 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 DEEPEN 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. H0-14-0131 70 71 72 73 74 75 76 77 78 79				
SPECIAL CONDITIONS NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.				

Well # 1 -
37' from house
15' from left

Well # 2 -
57' for hour
20' for well 1

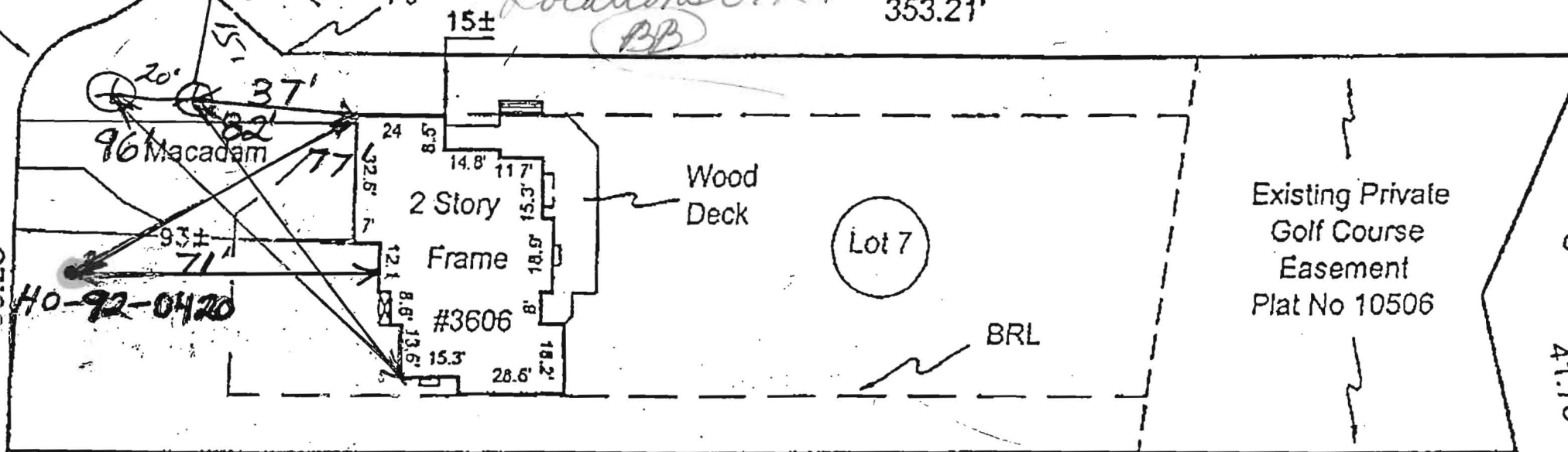
Lot 6

N 53°04'43" E
37.00'

11/12/2014

Proposed Borehole
Locations O.K.
BB

N 14°39'30" E
353.21'

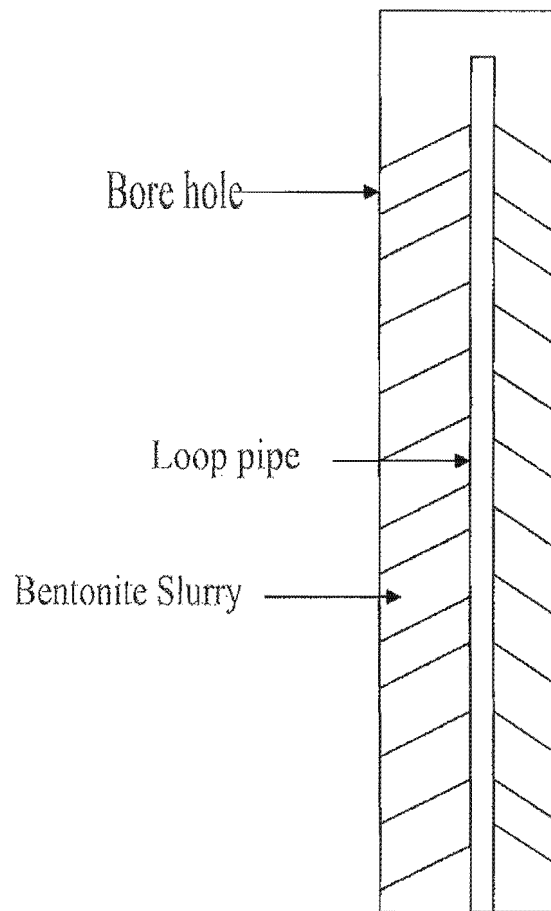


S 14°39'30" W
407.77'

Lot 8

Building Restriction Lines:
Front. ..60'
Sides 15'

GEO THERMAL WELL DESIGN



Owner KMSTA Frederick

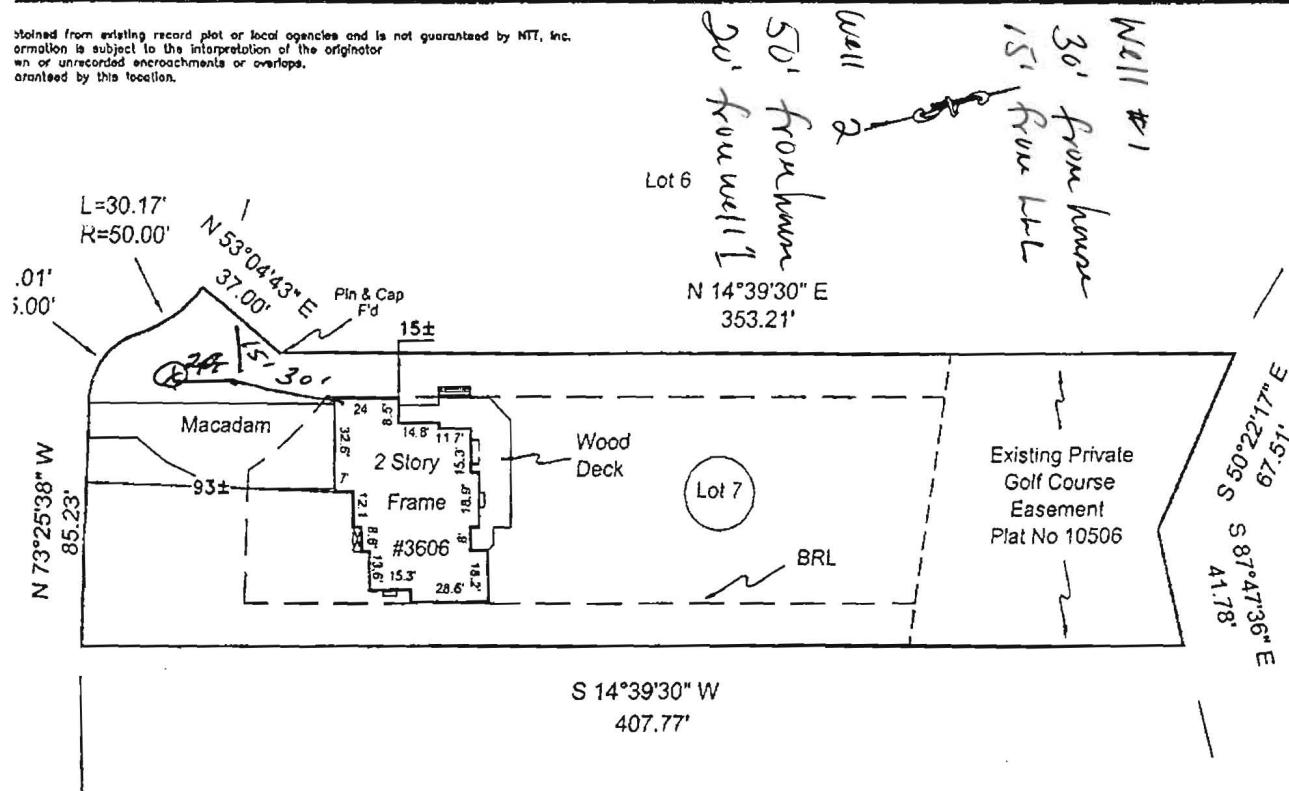
Location 3606 WILLOW BIRCH DRIVE

Number of wells 2

Depth 600 + 450 Loop Size 1 1/4

Grout Material-----Bentonite Slurry from bottom to G.L.

obtained from existing record plot or local agencies and is not guaranteed by NTT, Inc.
 information is subject to the interpretation of the originator
 when or unrecorded encroachments or overlaps,
 guaranteed by this location.



wn in Zone C
 Howard County,
 Panel Number
 tive 12-4-86

have surveyed the property shown hereon, being
 n 2,
 ITTAL CREEK COUNTRY CLUB
 ie land records of Howard County, Maryland in
 stitg the improvements thereon.

to the consumer only insofar as it is required by a
 ce company or its agent in connection with
 nancing, or refinancing purposes.
 relied upon for the establishment of location of
 js, or other existing or future structures.
 vide for the accurate identification of property
 1 identification may not be required for the transfer
 financing or refinancing



J. Carl Hudgins PLS #96
 Expiration Date 3/11/14

Building Restriction Lines:
 Front ..60'
 Sides. 15'
 Rear.....As Shown

LOCATION DRAWING

3606 Willow Birch Drive
 ELECTION DISTRICT No. 4
 HOWARD COUNTY, MARYLAND

NTT Associates, Inc.
 16205 Old Frederick Rd.
 Mt. Airy, Maryland 21771
 Phone: (410)442-2031
 Fax: (410)442-1315
 Website: www.nttsurveyors.com

Scale: 1"= 60'
 Date: 4-22-12
 Field By: DR
 Drawn By: DR
 Drawing # 71636HRS