

C1 56939

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER XIII

ST/CO USE ONLY DATE RECEIVED 04/10/19

DATE WELL COMPLETED 11/30/2018

DEPTH OF WELL 450 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-17-0369

OWNER McIntyre Robert WELL SITE ADDRESS 17550 Old Frederick Road TOWN Mount Airy SUBDIVISION SECTION LOT 8

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Grass top soil, Silt, light brown, Brown weathered rock, and Bed rock medium hard.

Administrative sections including: NUMBER OF UNSUCCESSFUL WELLS, WELL HYDROFRACTURED, CIRCLE APPROPRIATE LETTER, DRILLERS LIC. NO., DRILLERS SIGNATURE, LIC. NO., and SITE SUPERVISOR information.

GROUTING RECORD section: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM, BC), NO. OF BAGS (18), NO. OF POUNDS (400), GALLONS OF WATER (432), DEPTH OF GROUT SEAL (0 to 450 ft).

CASING RECORD section: casing types (ST, CO, PL, OT), MAIN CASING TYPE (60-70), Nominal diameter top (main) casing, Total depth of main casing.

OTHER CASING (if used) section: diameter inch, depth (feet) from to.

SCREEN RECORD section: screen type or open hole (ST, BR, HO, PL, OT), DEPTH (nearest ft.)

MDE USE ONLY section: (NOT TO BE FILLED IN BY DRILLER) T, (E.R.O.S.), W Q, TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

PUMPING TEST section: HOURS PUMPED (8.6), PUMPING RATE (gal. per min.), 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) C, R, O, S.

PUMP INSTALLED section: DRILLER INSTALLED PUMP (YES), 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 (31-35), PUMP HORSE POWER (37-43), PUMP COLUMN LENGTH (nearest ft.) (43-47), CASING HEIGHT (circle appropriate box and enter casing height) (+ above, - below), LAND SURFACE (-3 (nearest foot)).

LATITUDE 39.361152, LONGITUDE 77.124661 (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.

C1 56944 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 24

1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3, 4, 5, 6 ON ALL CARDS)

DATE WELL COMPLETED 03/16/2019 APPROVED 4/17/2019 Depth of Well 300 (TO NEAREST FOOT)

PERMIT NO. FROM PERMIT TO DRILL WELL HO-18-0009

OWNER Johnston Donald WELL SITE ADDRESS 9358 Gentle Way TOWN Columbia, MD 21045 SUBDIVISION SECTION LOT 134

WELL LOG Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Silt with sand, Weathered Rock, and Rock, schist.

GROUTING RECORD WELL HAS BEEN GROUTED (Y) TYPE OF GROUTING MATERIAL (CM) NO. OF BAGS 15 NO. OF POUNDS 750

CASING RECORD casing types insert appropriate code below (ST, CO, PL, OT) MAIN CASING TYPE 60 61 63 64 66 70

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

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

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED (Y)

CIRCLE APPROPRIATE LETTER A 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 MWD 5671 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 D

DEPTH (nearest ft.) 1 2 3 4 5 6 7 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51 SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 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

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 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 - below } (nearest foot)

LATITUDE 39.188430 LONGITUDE 76.835924 (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 62817

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER HO-17-0369 fill in this form completely

OWNER INFORMATION Date Received (APA) 8 MM DD YY 13. McIntyre Robert 15 Last Name Owner First Name 34- 17550 Old Frederick Road 36 Street or RFD 55 Mount Airy, Maryland 21771 57 Town 70 State 72 Zip 76

LOCATION OF WELL B 3 Howard County 8 COUNTY 21 23 SUBDIVISION 42 SECTION 44 46 LOT 8 48 50 Mount Airy 52 NEAREST TOWN 71

DRILLER INFORMATION Jeff Carron M WD 567 76 License No. 81 Chesapeake Geosystems, Inc. Firm Name 6720 Fort Smallwood Rd Balt. 21226 Address Signature Date 11/07/2018

SOURCES OF DRILLING WATER 1. municipal 2. 3.

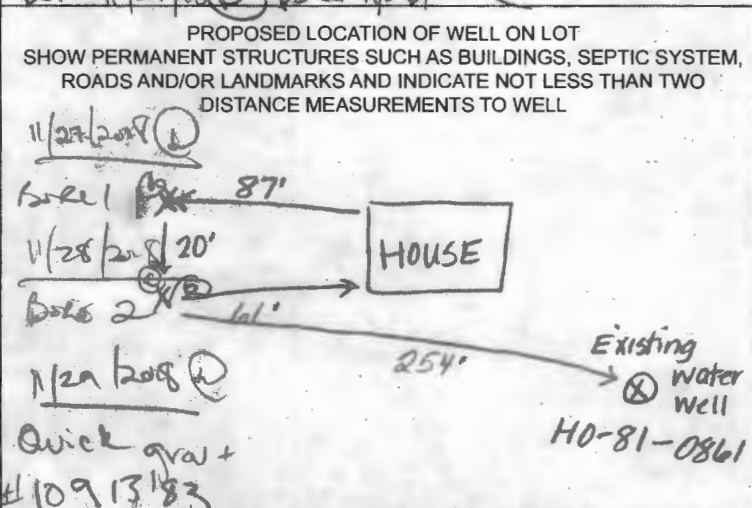
17550 Old Frederick Rd 11 STREET ADDRESS 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N WEST W SOUTH S EAST E 34 2100 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: 2 BLK: 13 PARCEL 57

WELL INFORMATION B 2 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 O OPEN LOOP GEOTHERMAL C CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL HOWARD COUNTY NAME STATE SIGNATURE DATE ISSUED 11/18/18 CO SIGNATURE EXP. DATE 11/18/19

APPROXIMATE DEPTH OF WELL 450 FEET APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH



METHOD OF DRILLING (circle one) BORED (or Augered) AIR-ROTary JETTED AIR-PERCussion ROTARY (Hydraulic Rotary) Jettied & DRIVEN Drive-POINT

REPLACEMENT OR DEEPENEED 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 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 DEEPEEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENEED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER G PERMIT No. HO-17-0369

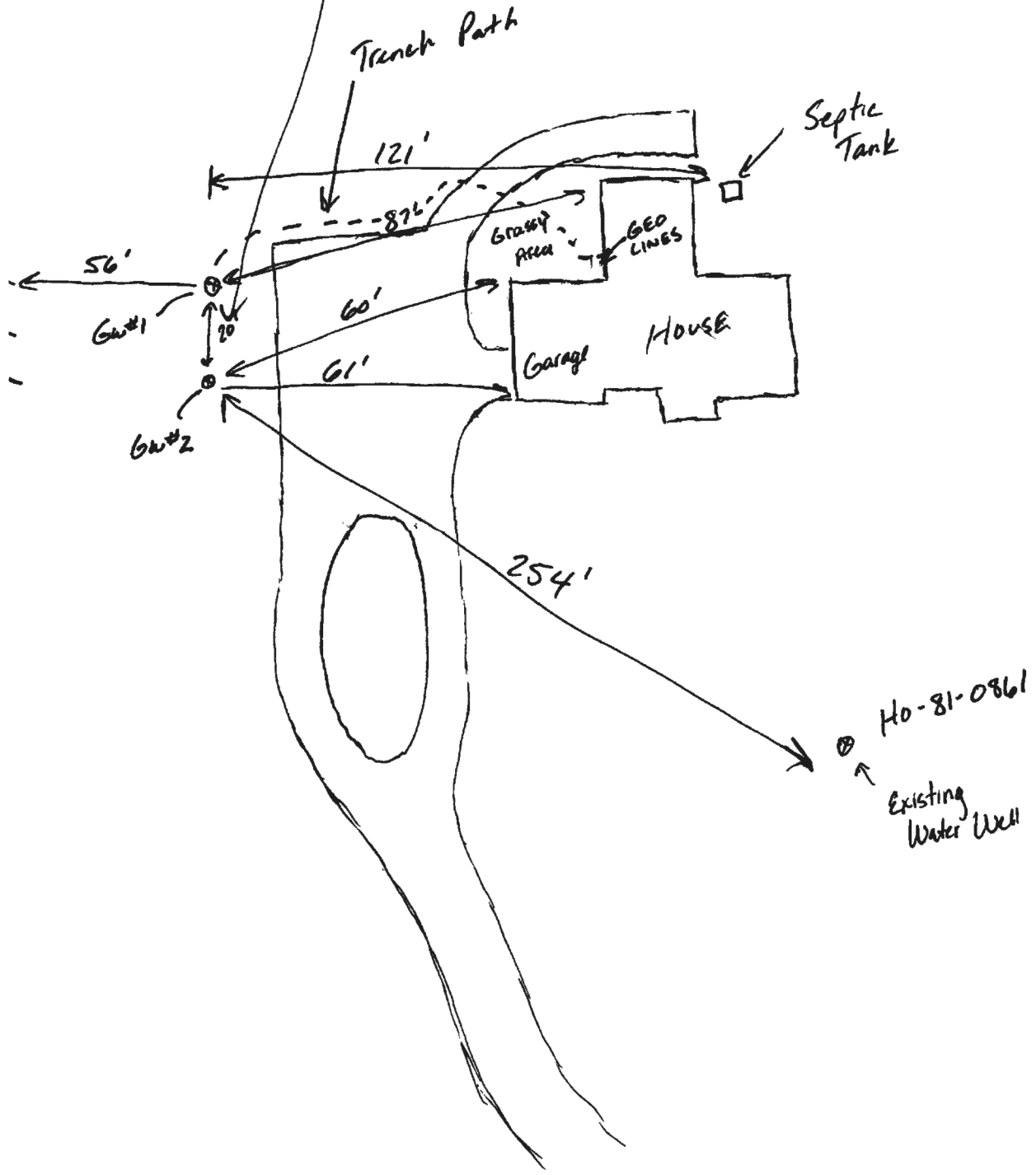
Pursuant to § 10-624 of the State Govt. Article of the Maryland Code, personal info requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State Law.

SPECIAL CONDITIONS NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED GROUT INSP.

(2,100'+, to Road)

Bob McIntyre
17550 Old Frederick Rd
Mt. Airy Md 21771
APPROVED 11/19/18
~~STEAK~~ STAKED BY DRILLER

2 geothermal wells, 450' ea. Ho-17-0369
w/ closed loops, 1.25" and Factory U-Bend



HOUSE LOCATION

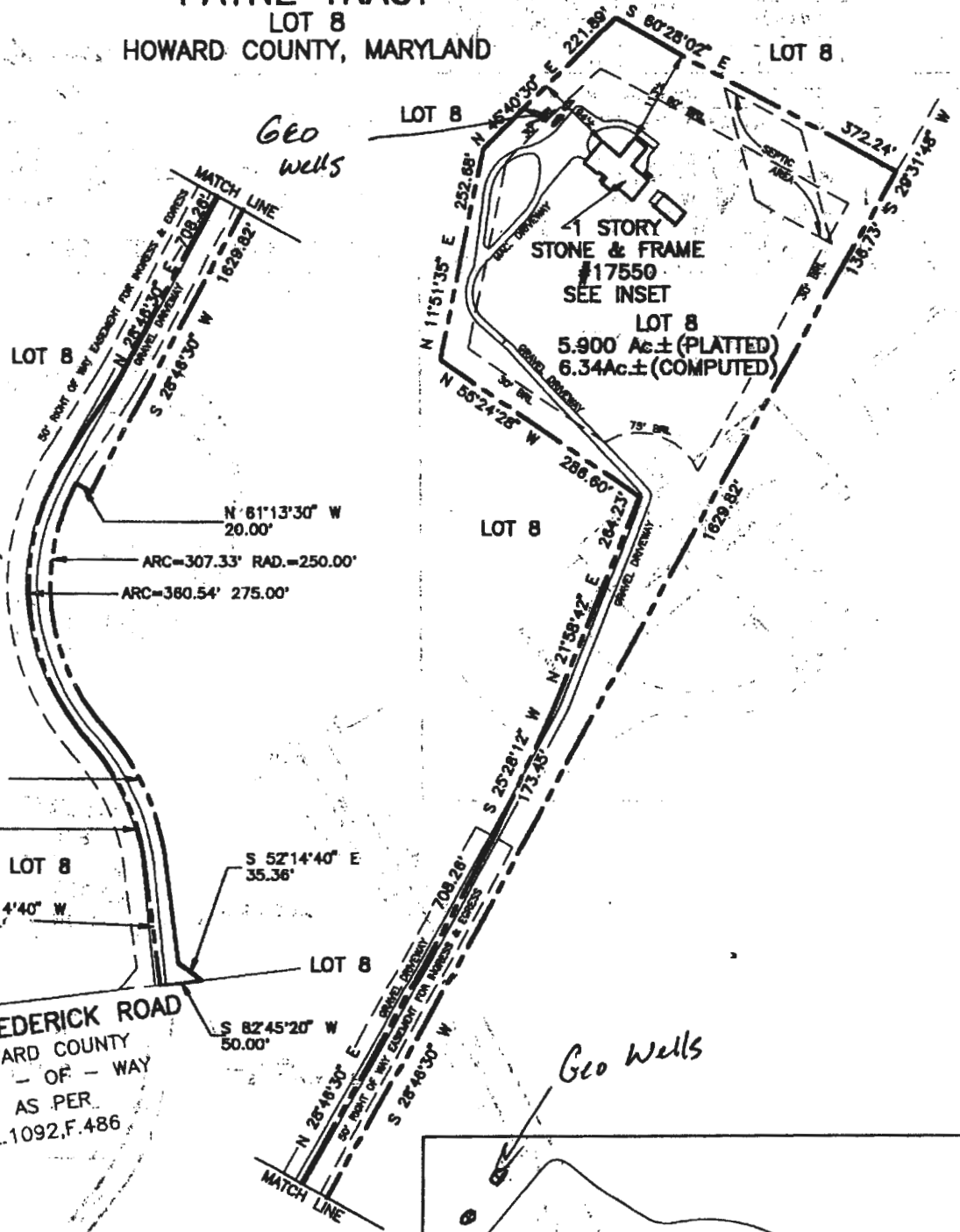
RESUBDIVISION PLAT
OF LOTS 5 & 6
PAYNE TRACT

LOT 8
HOWARD COUNTY, MARYLAND

NORTH

Geo Wells

Geo Wells



ARC=180.20° RAD.=300.00°

ARC=185.18° RAD.=275.00°

LOT 8

N 61°13'30" W 20.00'

ARC=307.33° RAD.=250.00'

ARC=380.54° 275.00'

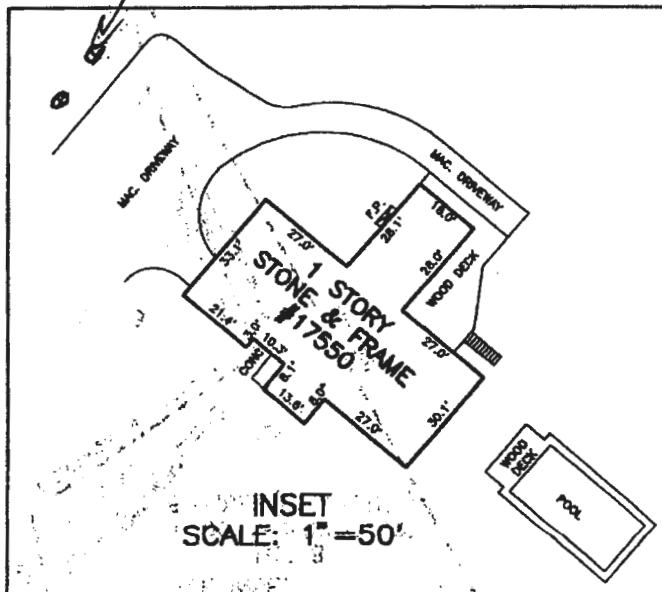
S 52°14'40" E 35.36'

N 07°14'40" W 143.54'

LOT 8

S 82°45'20" W 50.00'

OLD FREDERICK ROAD
HOWARD COUNTY
RIGHT-OF-WAY
AS PER
L.1092,F.486



WELL SCHEMATIC FORM

GROUND SURFACE

PERMANENT OUTER CASING (if area contaminated)

MATERIAL _____

DIAMETER _____

LENGTH _____

DEPTH INTO CONFINING UNIT _____

PERMANENT OUTER CASING

TUBE CASING (if not regular, single loop)

ATTACH HORIZONTAL SCHEMATIC _____

NUMBER OF TUBES PER BOREHOLE _____

DIAMETER OF TUBES _____

MATERIAL _____

SHAPE AND LENGTH _____

TUBE CONNECTION METHOD _____

TUBE CONNECTION MATERIAL _____

CONFINING UNIT

LOOP PIPE CASING (regular, single loop)

MATERIAL HDPE? YES NO

DIAMETER 1.25"

LENGTH 455'

GROUT

MATERIAL Bentonite

PERMEABILITY 1×10^{-7}

WATER / GROUT RATIO 24 / 50

PERCENT SOLIDS 20%

TREMIE GROUTED FROM BOTTOM OF BOREHOLE? YES NO

USING A POSITIVE DISPLACEMENT PUMP? YES NO

DEPTH TO THE BOTTOM OF HOLE 455'

DIAMETER OF BOREHOLE 6"

WELL ADDRESS 17550 Old Frederick Rd
Mt. Airy Md 21771

LOT NUMBER: 8

SQUARE NUMBER: _____

WELL OWNER: Robert McIntyre

OWNER ADDRESS: 17550 Old Frederick Rd
Mt. Airy Md 21771

Real Property Data Search

Search Result for HOWARD COUNTY

| View Map | | View GroundRent Redemption | | | | View GroundRent Registration | | | | |
|---|----------|--|---------------|------------------------------|------------|--|------|------------------|-----------|-------|
| Tax Exempt: | | Special Tax Recapture: | | | | | | | | |
| Exempt Class: | | NONE | | | | | | | | |
| Account Identifier: | | District - 04 Account Number - 326415 | | | | | | | | |
| Owner Information | | | | | | | | | | |
| Owner Name: | | MCINTYRE ROBERT W MCINTYRE HOPE A | | Use: Principal Residence: | | RESIDENTIAL YES | | | | |
| Mailing Address: | | 17550 OLD FREDERICK RD MOUNT AIRY MD 21771-3610 | | Deed Reference: | | /03288/ 00470 | | | | |
| Location & Structure Information | | | | | | | | | | |
| Premises Address: | | 17550 OLD FREDERICK RD MT AIRY 21771-0000 | | Legal Description: | | LOT 8 5.900 A 17550 OLD FREDERICK RD PAYNE TRACT | | | | |
| Map: | Grid: | Parcel: | Sub District: | Subdivision: | Section: | Block: | Lot: | Assessment Year: | Plat No: | 10858 |
| 0002 | 0013 | 0057 | | 0000 | | | 8 | 2017 | Plat Ref: | |
| Special Tax Areas: | | | | Town: | | NONE | | | | |
| | | | | Ad Valorem: | | 100 | | | | |
| | | | | Tax Class: | | | | | | |
| Primary Structure Built | | Above Grade Living Area | | Finished Basement Area | | Property Land Area | | County Use | | |
| 1985 | | 2,524 SF | | 1250 SF | | 5.9000 AC | | | | |
| Stories | Basement | Type | Exterior | Full/Half Bath | Garage | Last Major Renovation | | | | |
| 1 | YES | STANDARD UNIT | FRAME | 2 full/ 1 half | 1 Attached | | | | | |
| Value Information | | | | | | | | | | |
| | | Base Value | | Value | | Phase-in Assessments | | | | |
| | | | | As of | | As of | | As of | | |
| | | | | 01/01/2017 | | 07/01/2018 | | 07/01/2019 | | |
| Land: | | 241,700 | | 221,700 | | | | | | |
| Improvements | | 152,500 | | 299,300 | | | | | | |
| Total: | | 394,200 | | 521,000 | | 478,733 | | 521,000 | | |
| Preferential Land: | | 0 | | | | | | 0 | | |
| Transfer Information | | | | | | | | | | |
| Seller: HOPKINS DAVID E | | Date: 06/30/1994 | | Price: \$279,900 | | | | | | |
| Type: ARMS LENGTH IMPROVED | | Deed1: /03288/ 00470 | | Deed2: | | | | | | |
| Seller: GROUP LAND INC | | Date: 04/02/1985 | | Price: \$110,000 | | | | | | |
| Type: ARMS LENGTH IMPROVED | | Deed1: /01335/ 00306 | | Deed2: | | | | | | |
| Seller: | | Date: | | Price: | | | | | | |
| Type: | | Deed1: | | Deed2: | | | | | | |
| Exemption Information | | | | | | | | | | |
| Partial Exempt Assessments: | | Class | | 07/01/2018 | | 07/01/2019 | | | | |
| County: | | 000 | | 0.00 | | | | | | |
| State: | | 000 | | 0.00 | | | | | | |
| Municipal: | | 000 | | 0.00 0.00 | | 0.00 0.00 | | | | |
| Tax Exempt: | | Special Tax Recapture: | | | | | | | | |
| Exempt Class: | | NONE | | | | | | | | |
| Homestead Application Information | | | | | | | | | | |
| Homestead Application Status: Approved 08/18/2009 | | | | | | | | | | |
| Homeowners' Tax Credit Application Information | | | | | | | | | | |



HOWARD COUNTY HEALTH DEPARTMENT

64066

DATE 11/13/18

Received From

Chesapeake Geosystems PHONE # 410-500-4000

For

Well Permit / 17550 Old
Frederick Rd.

CASH

CHECK

NO.

35217

\$ 160.00

One hundred sixty Dollars

Received By

[Signature]