



HOWARD COUNTY HEALTH DEPARTMENT

72838

DATE
10/29/20

65

Received
From

PHONE #

Chesapeake Geosystems 410-789-5020

For

Well Permit / 3015
Geothermal Sert
Johns Lane

☐ CASH

☒ CHECK

NO.

40962

One hundred sixty

Dollars

\$

160.00

Received By

J Kemp

C 1		63878		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.	
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		DATE RECEIVED MM DD 05 23 21		DATE WELL COMPLETED MM DD 12 23 2020		Depth of Well 200 (TO NEAREST FOOT)		PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-20-0060	
OWNER Thompson		WELL SITE ADDRESS 3075 St Johns Lane		TOWN Ellicott City		SUBDIVISION 8002		SECTION LOT	
WELL LOG Not required for driven wells		STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		GRROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) Y 44 N 44 TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 10 NO. OF POUNDS 500 GALLONS OF WATER 240 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 200 ft. (enter 0 if from surface)		C 3 1 2 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 40 ft. WHEN PUMPING N/A 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			
DESCRIPTION (Use additional sheets if needed)		FEET FROM TO		check if water bearing		C 2 DEPTH (nearest ft.) 1 2 E 8 9 11 15 17 21 A 23 24 26 30 32 36 C 38 39 41 45 47 51 S R E N SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) from to GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68		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 } LAND SURFACE - below } 3 (nearest foot) LATITUDE 39.287584 LONGITUDE 76.829570 (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. 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.	
NUMBER OF UNSUCCESSFUL WELLS: 0		WELL HYDROFRACTURED yes Y no 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. 1 MWD 598 Wesley A. Wayne DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 D		MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q 70 72 74 75 76 TELESCOPE LOG CASING INDICATOR OTHER DATA	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		COUNTY							

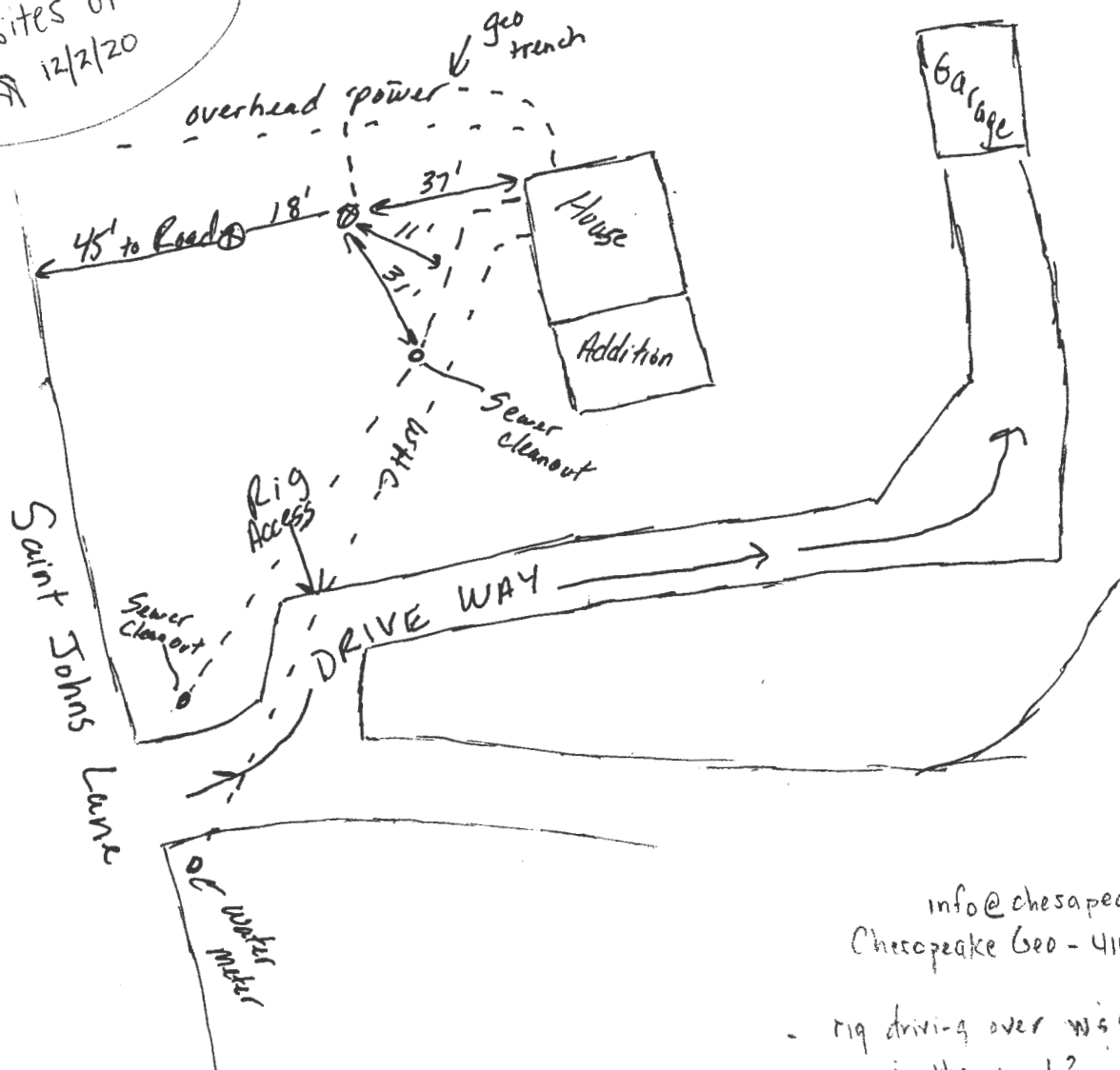
B 1	SEQUENCE NO. (MDE USE ONLY) <div style="font-size: 2em; font-weight: bold;">48275</div>	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL <div style="font-size: 1.5em;">572838</div> please type	STATE PERMIT NUMBER <div style="font-size: 1.5em;">H6 - 20 - 0060</div> fill in this form completely
1 2 3 6	Date Received (APA) <div style="font-size: 1.5em;">10-20-20</div> <div style="font-size: 0.8em;">8 MM DD YY 13</div>		B 3
OWNER INFORMATION <div style="font-size: 1.2em;">Thompson</div> <div style="font-size: 0.8em;">15 Last Name</div> <div style="font-size: 1.2em;">Christina</div> <div style="font-size: 0.8em;">34 First Name</div> <div style="font-size: 1.2em;">3075 Saint Johns Lane</div> <div style="font-size: 0.8em;">55 Street or RFD</div> <div style="font-size: 1.2em;">Ellicott City Md 21042</div> <div style="font-size: 0.8em;">57 Town 70 State 72 Zip 76</div>		LOCATION OF WELL <div style="font-size: 1.2em;">Howard</div> <div style="font-size: 0.8em;">8 COUNTY 21</div> <div style="font-size: 1.2em;">8002 Saint Johns Ln</div> <div style="font-size: 0.8em;">23 SUBDIVISION 42</div> <div style="font-size: 1.2em;">Ellicott City</div> <div style="font-size: 0.8em;">52 NEAREST TOWN 71</div>	
DRILLER INFORMATION <div style="font-size: 1.2em;">Wesley Wolfe</div> <div style="font-size: 0.8em;">76 Driller's Name 81</div> <div style="font-size: 1.2em;">Chesapeake Geosystems Inc</div> <div style="font-size: 0.8em;">6720 Ft Smallwood Rd Baltimore Md 21226</div> <div style="font-size: 0.8em;">Address</div> <div style="font-size: 1.2em;">Wesley Wolfe</div> <div style="font-size: 0.8em;">10-19-2020</div> <div style="font-size: 0.8em;">Signature Date</div>		SOURCES OF DRILLING WATER 1. Public 2. 3.	
B 2	WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) <div style="font-size: 1.2em;">N/A</div> <div style="font-size: 0.8em;">8 12</div> AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <div style="font-size: 1.2em;">N/A</div> <div style="font-size: 0.8em;">14 20</div>		
USE FOR WATER (CIRCLE APPROPRIATE BOX) <input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input checked="" type="checkbox"/> CLOSED LOOP GEOTHERMAL		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL <div style="font-size: 1.2em;">Howard</div> <div style="font-size: 0.8em;">COUNTY NAME</div> <div style="font-size: 1.2em;">13</div> <div style="font-size: 0.8em;">COUNTY NO.</div> <div style="font-size: 1.2em;">STATE SIGNATURE</div> <div style="font-size: 0.8em;">DATE ISSUED</div> <div style="font-size: 1.2em;">12/2/20</div> <div style="font-size: 0.8em;">43 MM DD YY 48</div> <div style="font-size: 1.2em;">Ruth</div> <div style="font-size: 0.8em;">CO SIGNATURE</div> <div style="font-size: 1.2em;">12/2/21</div> <div style="font-size: 0.8em;">EXP. DATE</div>	
APPROXIMATE DEPTH OF WELL <div style="font-size: 1.2em;">200</div> <div style="font-size: 0.8em;">24 28 FEET</div>		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 <div style="font-size: 1.2em;">Misty Wood Ln</div> <div style="font-size: 1.2em;">45' x 37'</div> <div style="font-size: 1.2em;">18'</div> <div style="font-size: 1.2em;">Drive</div> <div style="font-size: 1.2em;">12/22/2020</div> <div style="font-size: 1.2em;">2x200' geobores drilled</div>	
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) <input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEMED 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. H6 - 20 - 0060 <div style="font-size: 0.8em;">70 71 72 73 74 75 76 77 78 79</div>			
SPECIAL CONDITIONS NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED <div style="font-size: 1.2em;">grout bores from bottom to top</div>			

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.

3075 St Johns Lane
 Ellicott City Md 21042
 Thompson Residence

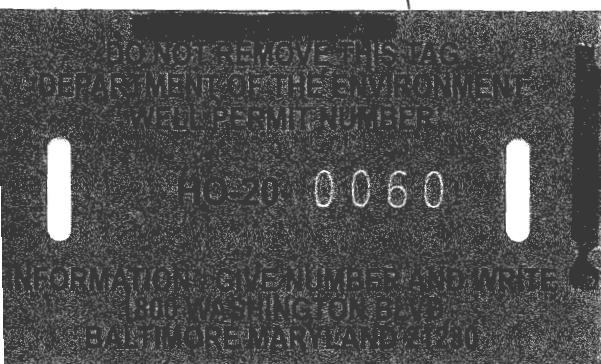
2 wells @ 200' each
 with closed loop
 geothermal

Well sites OK
 12/2/20



info@chesapeakegeo.com
 Chesapeake Geo - 410-789-5020

- rig driving over w/s (public) lines in the yard?
- What is SHE constructed? material? 10ft vs soft setback?
- are the well sites staked?





P.O. BOX 1281
COCKEYSVILLE, MD 21030
410-560-1120
tearp@earpinc.com

PROPERTY: 3075 St. Johns Lane

DATE: August 26, 2020

BILL TO: Christina Thompson
ADDRESS: c/o Lena Bonds

FEE: \$50.00

DESCRIPTION OF INSPECTION: The sewer line could not be inspected due to a tee in the cast iron pipe that the camera could not be pushed past. Since I was unable to view the sewer line outside of house, I recommend the insurance coverage available from HomeServe.

A handwritten signature in cursive script that reads "Thomas A. Earp".

Thomas A. Earp
MDE Approved for Inspection of On-Site Sewage Disposal Systems;
Baltimore County Master Plumber License #72A

DISCLAIMER: Because of many factors (water usage, age, soil and weather conditions, etc.) of which EARP INC. has no control over; this report shall not be construed as a warranty by EARP INC., either expressed or implied, that the system will continue to function properly.

Department of Inspections Licenses and Permits 3430 Court House Drive Ellicott City, MD 21043 Permits (410) 313-2455 Opt. #4 Inspections (410) 313-1840	HOWARD COUNTY RESIDENTIAL HEATING-VENTILATION-AIR CONDITIONING AND REFRIGERATION PERMIT APPLICATION	HVACR PERMIT # M20000919 BUILDING PERMIT #
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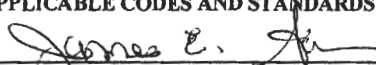
SITE BUILDING ADDRESS: 3075 St. Johns Lane SUBDIVISION: TYPE OF IMPROVEMENTS: Install (2) WaterFurnace geothermal systems USE:	SUITE/APT: OWNERS NAME: Christina Thompson ADDRESS: 3075 St. Johns Lane CITY: Ellicott City STATE: md ZIP CODE: 21042 HOME PHONE: 443-928-5604 CELL PHONE:
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<table border="0"> <tr> <th><u>CHECK ONE</u></th> <th><u>HOW MANY</u></th> </tr> <tr> <td>SINGLE FAMILY DWELLING <input type="checkbox"/></td> <td><u>2</u> ZONES</td> </tr> <tr> <td>SINGLE FAMILY TOWNHOUSE <input type="checkbox"/></td> <td>___ ZONES</td> </tr> <tr> <td>MULTI-FAMILY / HOTEL/MOTEL <input type="checkbox"/></td> <td>___ ROOMS</td> </tr> <tr> <td>ASSISTED LIVING HOMES (16 OR FEWER RESIDENTS) <input type="checkbox"/></td> <td>___ ROOMS</td> </tr> </table>	<u>CHECK ONE</u>	<u>HOW MANY</u>	SINGLE FAMILY DWELLING <input type="checkbox"/>	<u>2</u> ZONES	SINGLE FAMILY TOWNHOUSE <input type="checkbox"/>	___ ZONES	MULTI-FAMILY / HOTEL/MOTEL <input type="checkbox"/>	___ ROOMS	ASSISTED LIVING HOMES (16 OR FEWER RESIDENTS) <input type="checkbox"/>	___ ROOMS	COMPANY NAME: Total Comfort Heating & A/C LICENSEE NAME: James E. Aaron ADDRESS: 12009 Margaret Drive CITY: Hagerstown STATE: md ZIP CODE: 21742 PHONE: 301-745-3700 HVACR LICENSE NO: 5833-01
<u>CHECK ONE</u>	<u>HOW MANY</u>										
SINGLE FAMILY DWELLING <input type="checkbox"/>	<u>2</u> ZONES										
SINGLE FAMILY TOWNHOUSE <input type="checkbox"/>	___ ZONES										
MULTI-FAMILY / HOTEL/MOTEL <input type="checkbox"/>	___ ROOMS										
ASSISTED LIVING HOMES (16 OR FEWER RESIDENTS) <input type="checkbox"/>	___ ROOMS										

<u>New Construction</u> <input type="checkbox"/> Heating and Air Conditioning <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Heating	<u>Additions and Alterations</u> <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Heating and Air Conditioning	<input checked="" type="checkbox"/> Geo Thermal System <input type="checkbox"/> Gas Conversion (Make and Model of Equipment) <input type="checkbox"/> Ductless Mini Splits <input type="checkbox"/> Thru The Wall Systems <input type="checkbox"/> Other Work (Describe):
<u>Replacement</u> <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input checked="" type="checkbox"/> Heating and Air Conditioning		
Remove old HVAC equipment and install (2) WaterFurnace geothermal systems.		
****Replacement Geo Thermal Systems are not required; However, if a tax credit is being sought a permit is required****		

<u>Zones</u> Permit Fee = # of Zones x \$40 = <u>80.00</u> Technology Fee (10% of Permit Fee) = <u>8.00</u> Plus Application Fee <u>50.00</u> Total Fees Due = <u>138.00</u>	<u>Rooms</u> Permit Fee = # of Rooms x \$80 = _____ Technology Fee (10% of Permit Fee) = _____ Plus Application Fee \$50 <u>50.00</u> Total Fees Due = _____
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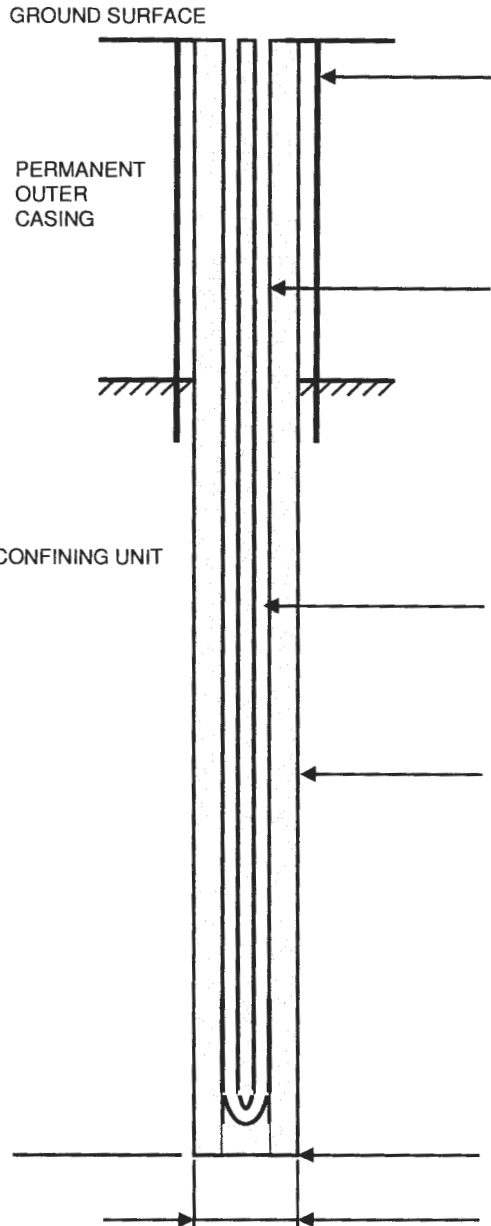
I HAVE CAREFULLY EXAMINED AND READ THIS APPLICATION AND KNOW IT IS TRUE AND CORRECT. THE WORK DESCRIBED HEREIN WILL BE PERFORMED BY A STATE HVACR LICENSED PERSON(S), AND ALL WORK WILL BE PERFORMED IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS OF HOWARD COUNTY THE STATE OF MARYLAND.

SIGNATURE OF LICENSEE  PRINT NAME OF LICENSEE James E. Aaron Email Address jim@tchvac.net	DATE 12/9/2020	Validation Approved Septic System Plan 9691 Howard County Health Department Money Order # 07/15/2021 Invoice Number 1042884
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Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

Updated Forms\HVAC application Rev:09.2019

WELL SCHEMATIC FORM



The diagram shows a vertical well structure. At the top is the 'GROUND SURFACE'. Below it is the 'PERMANENT OUTER CASING'. Further down is the 'CONFINING UNIT', indicated by a hatched pattern. Inside the casing are four 'TUBE CASING' lines. At the bottom of the tubes is a 'LOOP PIPE CASING'. The well extends to a 'DEPTH TO THE BOTTOM OF HOLE' of 200 feet. The 'DIAMETER OF BOREHOLE' is 6 inches. Arrows point from the text labels to the corresponding parts of the schematic.

GROUND SURFACE

PERMANENT OUTER CASING

CONFINING UNIT

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 4

DIAMETER OF TUBES 3/4"

MATERIAL HDPE

SHAPE AND LENGTH Vertical, Round, 200'

TUBE CONNECTION METHOD Fusion - Factory

TUBE CONNECTION MATERIAL HDPE

LOOP PIPE CASING (regular, single loop)

MATERIAL HDPE? YES ☐ NO ☐

DIAMETER _____

LENGTH _____

GROUT

MATERIAL Benetonite

PERMEABILITY 2.5×10^{-8} cm/sec

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 200'

DIAMETER OF BOREHOLE 6"

WELL ADDRESS
3075 St Johns Lane
Ellicott City Md 21042

LOT NUMBER: _____

SQUARE NUMBER: _____

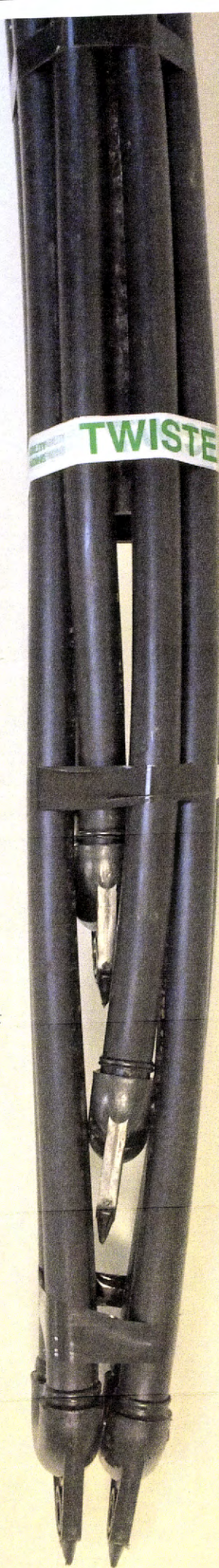
WELL OWNER:
Christina Thompson

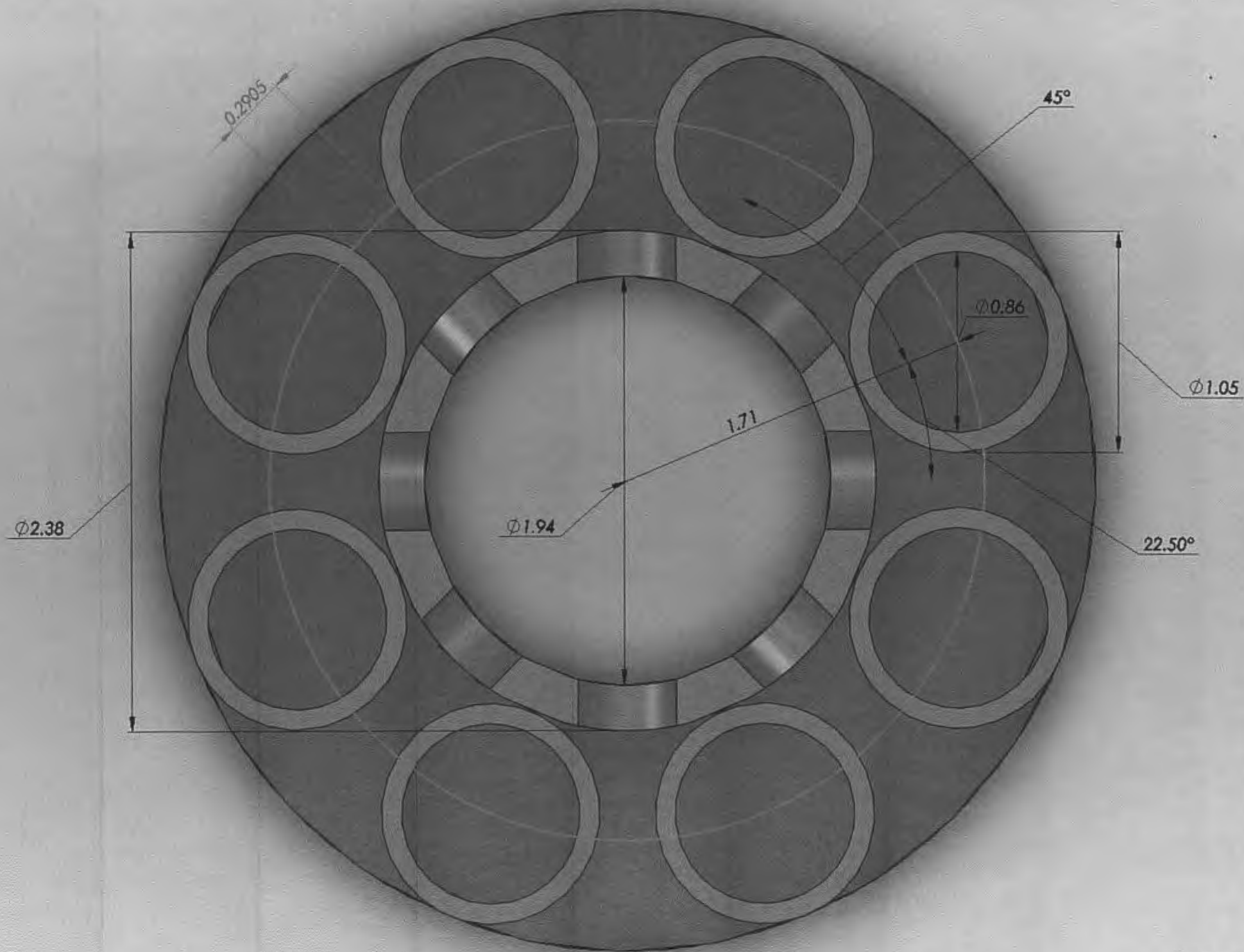
OWNER ADDRESS:
3075 St Johns Ln
Ellicott City Md
21042

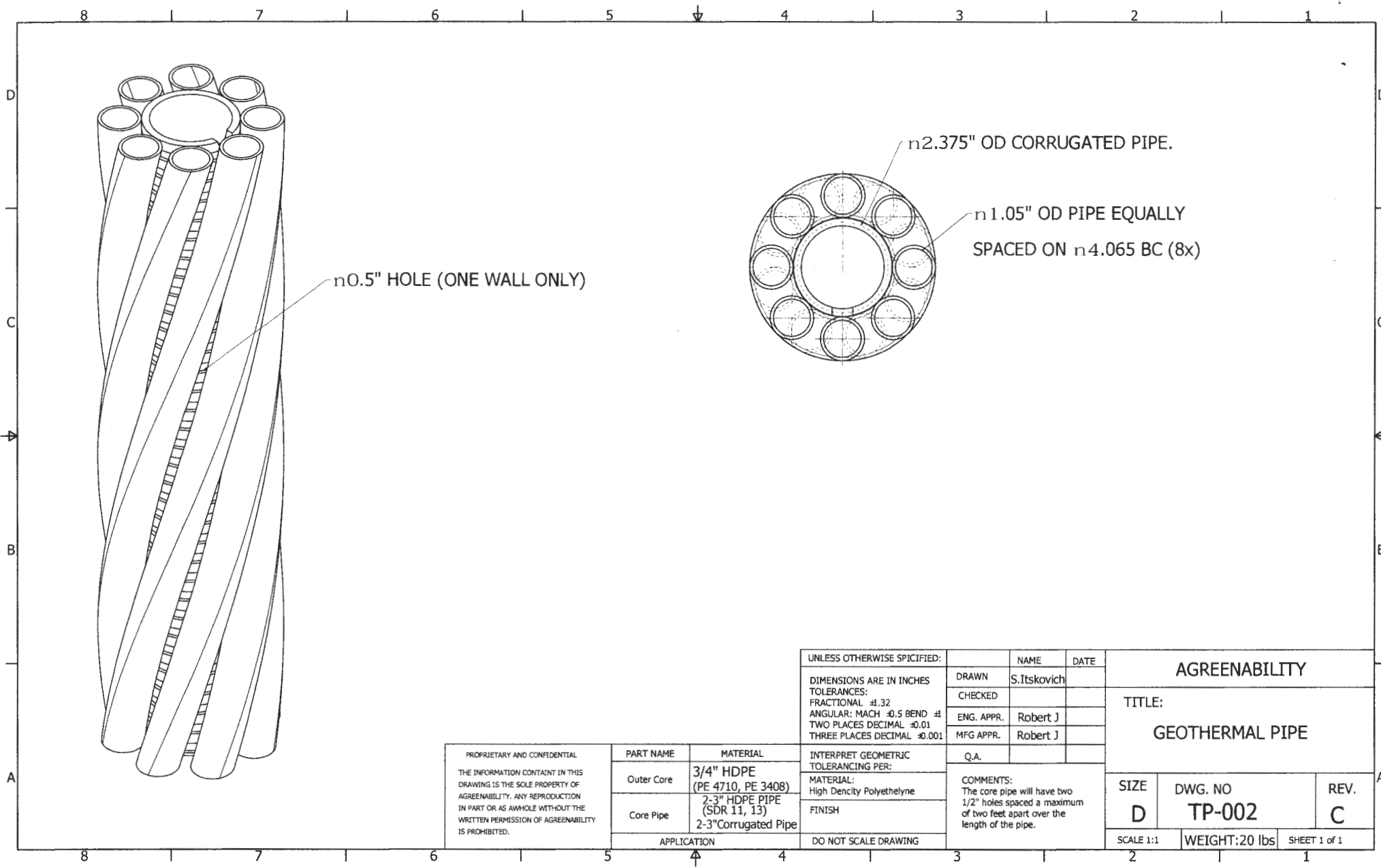
TOP
FUSED MANIFOLD



BOTTOM
(U-BENDS)







UNLESS OTHERWISE SPECIFIED:				AGREENABILITY		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±.32 ANGULAR: MACH ±0.5 BEND ±.01 TWO PLACES DECIMAL ±0.01 THREE PLACES DECIMAL ±0.001	DRAWN	S.Itskovich		TITLE: GEOTHERMAL PIPE		
	CHECKED					
	ENG. APPR.	Robert J				
	MFG APPR.	Robert J				
INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL: High Density Polyethylene FINISH	Q.A.			COMMENTS: The core pipe will have two 1/2" holes spaced a maximum of two feet apart over the length of the pipe.		
DO NOT SCALE DRAWING				SIZE D	DWG. NO TP-002	REV. C
				SCALE 1:1	WEIGHT: 20 lbs	SHEET 1 of 1

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AGREENABILITY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF AGREENABILITY IS PROHIBITED.	PART NAME	MATERIAL
	Outer Core	3/4" HDPE (PE 4710, PE 3408)
	Core Pipe	2-3" HDPE PIPE (SDR 11, 13) 2-3" Corrugated Pipe
	APPLICATION	