

C1 28095

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

ST/CO USE ONLY DATE RECEIVED MM 10 DD 21 YY 14

DATE WELL COMPLETED MM 9 DD 11 YY 14

DEPTH OF WELL 220 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" 419/15 SC 140-14-0089

OWNER: Ambati Sreenivasulu TOWN: Glendy MO

WELL LOG Not required for driven wells

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Rows include Top Soil, Soft tan Rock, Hard tan Rock, Hard Gray Rock, Mud tan Rock, Hard Gray Rock.

GROUTING RECORD: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL: CEMENT (CM), BENTONITE CLAY (BC), NO. OF BAGS: 30, NO. OF POUNDS: 1500.

CASING RECORD: MAIN CASING TYPE: 60-61, Nominal diameter: 63-64, Total depth: 66-70.

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

SCREEN RECORD: screen type or open hole: (S) STEEL, (B) BRASS, (H) OPEN HOLE, (P) PLASTIC, (O) OTHER.

NUMBER OF UNSUCCESSFUL WELLS: WELL HYDROFRACTURED (Y)

CIRCLE APPROPRIATE LETTER: A WELL WAS ABANDONED AND SEALED, 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 553, DRILLERS SIGNATURE, LIC. NO. 1 55 D 144

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

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

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68. 15 bags x 20 gal = 390 gal / 290" = 1.34

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

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) 49 above, 49 below LAND SURFACE (nearest foot) 50 51.

LATITUDE 39.2639, LONGITUDE 77.02495 (DEFAULT COORD. WGS 84)

NOTES: Front 0 #, 39.26145, 77.02488

Supervisory Air

04-372697

B 1 37384 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER 10-14-0089 fill in this form completely

DATE RECEIVED (APA) 09/02/14 OWNER INFORMATION Ambati Sreenivasulu+Subhashini 14569 Edgewoods Way Glenelg MD 21737

LOCATION OF WELL Howard Edgewood Farm Ph 2 Edgewood SUBDIVISION SECTION 44 46 LOT 41 48 50 NEAREST TOWN Glenelg

DRILLER INFORMATION C John Hess MW D 553 Allied Environmental Services 20 Box 129 Annapolis Junction MD 20701 08/28/14

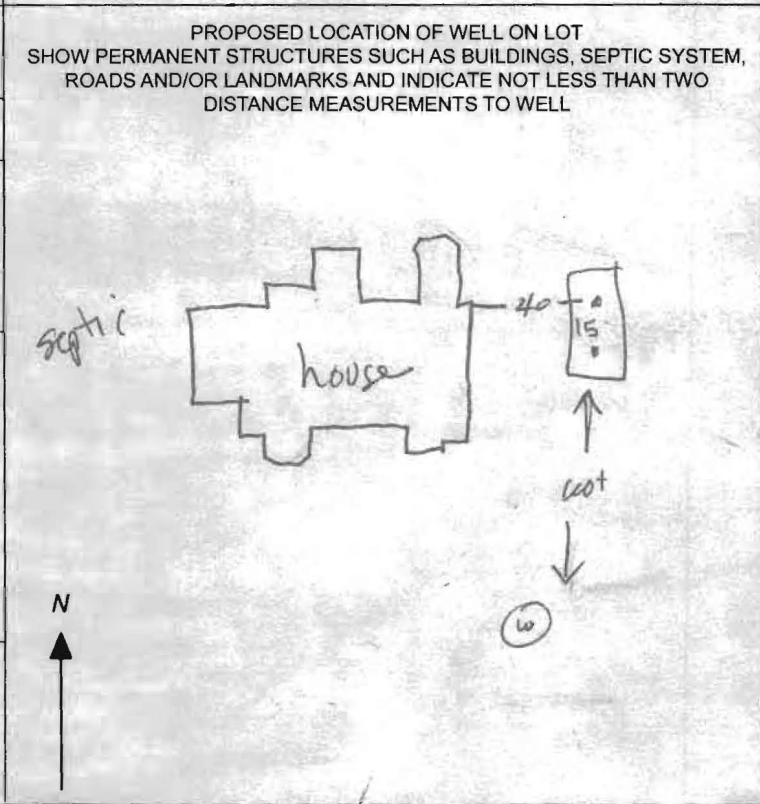
SOURCES OF DRILLING WATER Public 14569 Edgewoodway STREET ADDRESS ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) DISTANCE FROM ROAD ENTER FT OR MI TAX MAP 0021 BLK 0022 PARCEL 0090

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard 35 13 COUNTY NAME COUNTY NO. STATE SIGNATURE H. OSWALD DATE ISSUED 9/10/14 CO SIGNATURE EXP. DATE 9/10/15

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 2 loops

APPROXIMATE DEPTH OF WELL 290 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) CABLE REVERSE-ROTary DRIVE-POINT

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 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)

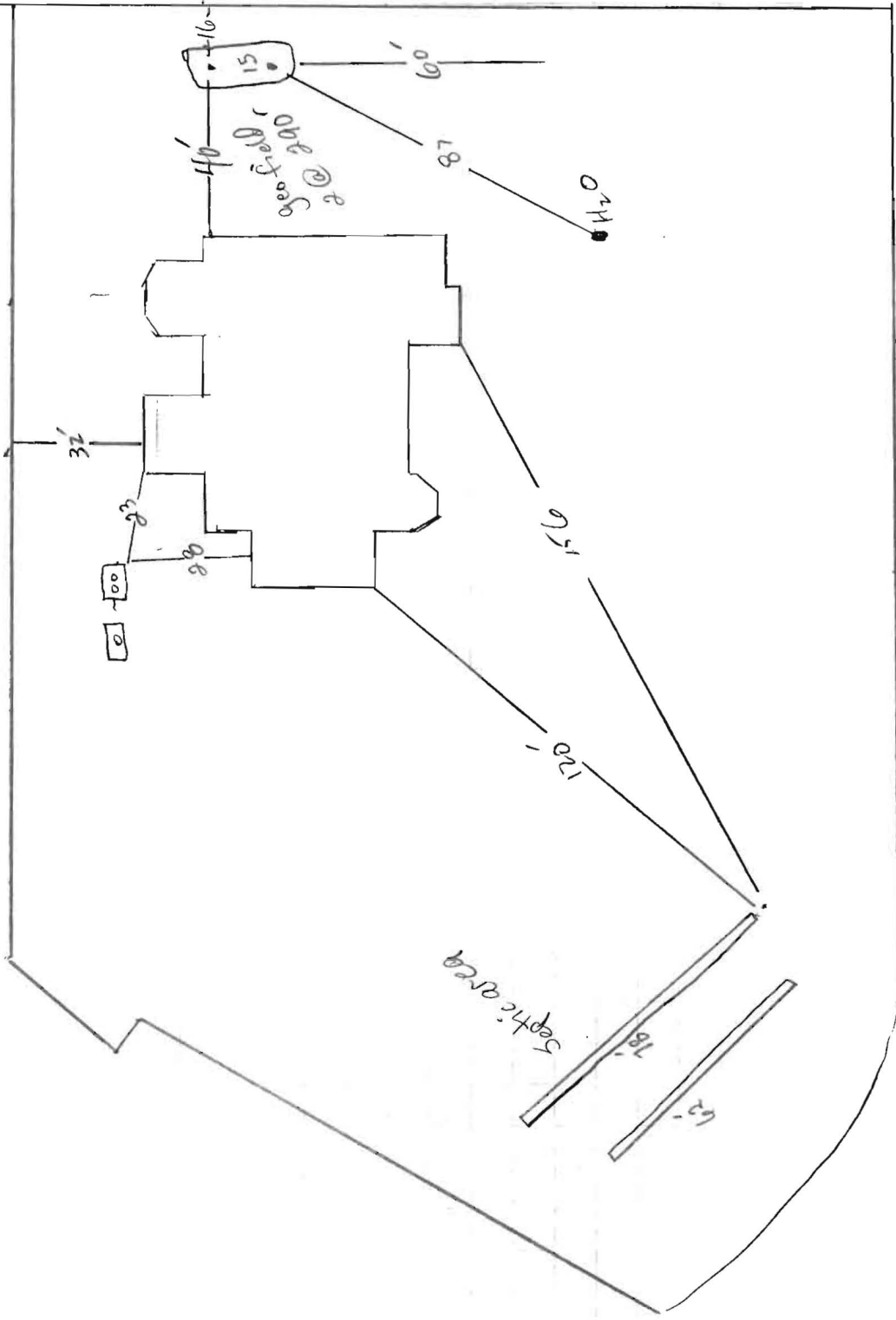
Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER PERMIT No. 10-14-0089

SPECIAL CONDITIONS NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Supreme Air

Closed Loop Geothermal Well
Site Plan Approved as shown
9/10/14 - H.O.

1" = 40'



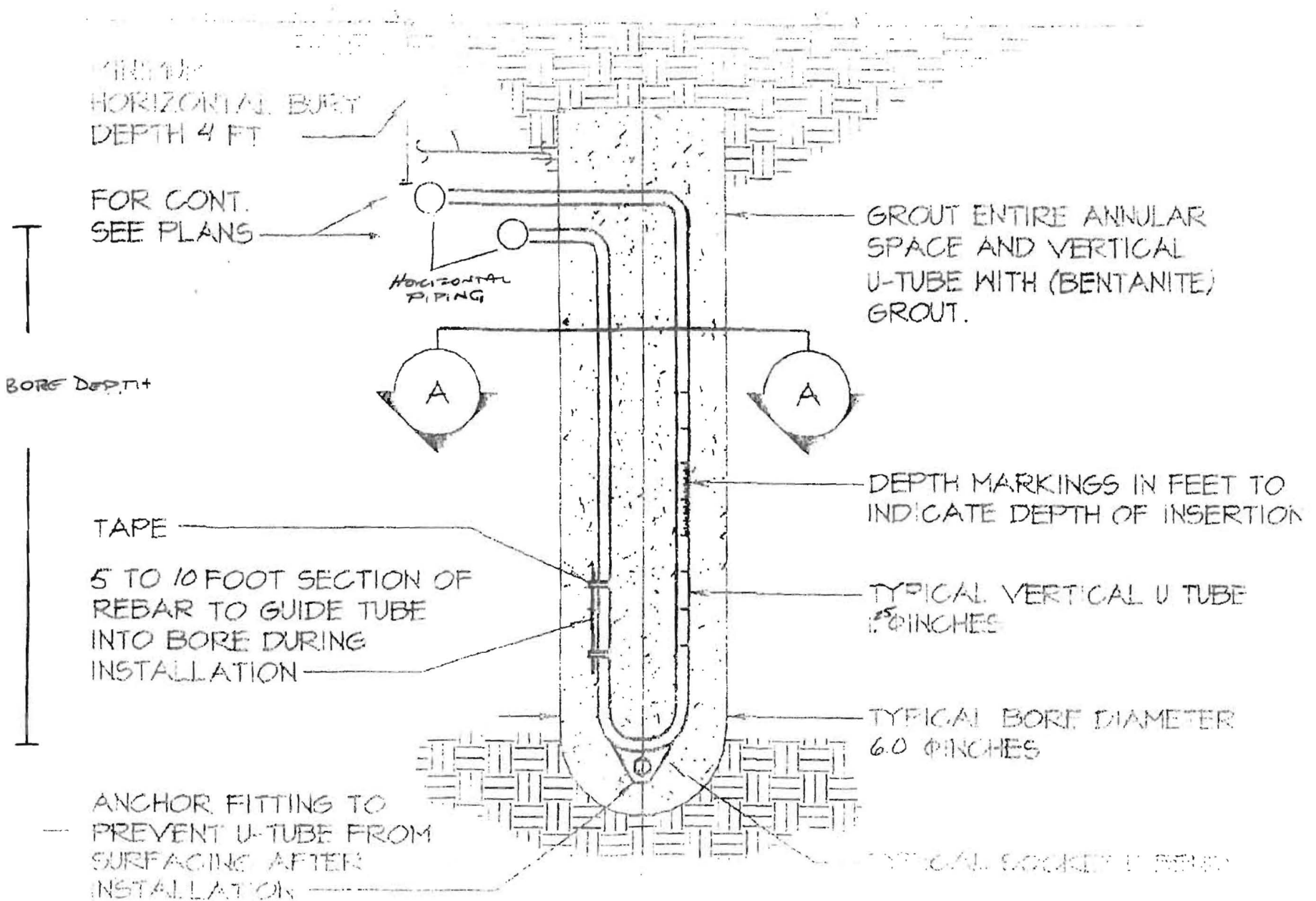
14569 Edgewoods Way
Glenely, Md

HOWARD COUNTY GROUTING PROCEDURE

Boreholes will be grouted from the bottom to the top via a tremie pipe and positive displacement pump. Bentonite grout, known as Quik-Grout will be used according to the manufacturer's specifications to achieve a consistency of at least 20% solids (24 gallons potable water/50 lb. sack of grout) and a permeability no more than $2.5 \text{ E}(-08) \text{ cm/sec}$. Grouting will be completed immediately after installing the geothermal loop and no later than twenty-four (24) hours after installing the geothermal loop. Open boreholes/annular space will be protected as necessary to prevent the entry of surface water or pollutants. !

GRADE

EACH BORE HOLE (TYP.)



HORIZONTAL BURY DEPTH 4 FT

FOR CONT. SEE PLANS

HORIZONTAL PIPING

GROUT ENTIRE ANNULAR SPACE AND VERTICAL U-TUBE WITH (BENTONITE) GROUT.

BORE DEPTH

TAPE

5 TO 10 FOOT SECTION OF REBAR TO GUIDE TUBE INTO BORE DURING INSTALLATION

DEPTH MARKINGS IN FEET TO INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U TUBE 1.5 INCHES

TYPICAL BORE DIAMETER 6.0 INCHES

ANCHOR FITTING TO PREVENT U-TUBE FROM SURFACING AFTER INSTALLATION

TYPICAL SOCKETED REBAR