

C 1 27830

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.

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

COUNTY NUMBER

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY

Depth of Well TO NEAREST FOOT

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER Callison Karen WELL SITE ADDRESS 10819 Vista Road TOWN Columbia SUBDIVISION Holiday Hills SECTION LOT 85

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Topsoil, Silt, brown, mica dry, Weathered Rock, and Bed Rock.

Installed 1.25 x 370' closed loop HDPE-u-bend

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT [CM] BENTONITE CLAY [BC] NO. OF BAGS 98 NO. OF POUNDS 700 GALLONS OF WATER 392 DEPTH OF GROUT SEAL (to nearest foot) from 0' to 370'

CASING RECORD

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)

OTHER CASING (if used)

Table for other casing with columns for diameter and depth.

SCREEN RECORD

screen type or open hole (insert appropriate code below) [ST] [BR] [HO] [PL] [OT]

C 2

DEPTH (nearest ft.)

Table for depth measurements with columns for casing sections and slot size.

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

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

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' 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 or NO) YES [] NO [X] 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) PUMP HORSE POWER PUMP COLUMN LENGTH (nearest ft.) CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE -3 (nearest foot)

LATITUDE 39.180487 LONGITUDE 76.886901 (DEFAULT COORD. WGS 84)

NOTES:

#1

B 1
46420

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO - 15 - 0188
70 fill in this form completely 79

5574601 please type

Date Received (APA) 11/18/15
8 MM DD YY 13

OWNER INFORMATION

Callison Karen
15 Last Name Owner First Name 34

10814 Vista Road
36 Street or RFD 55

Columbia MD 21044
57 Town 70 State 72 Zip 76

B 3 **LOCATION OF WELL**

Howard
8 COUNTY 21

Holiday Hills
23 SUBDIVISION 42

SECTION 44 46 LOT 85 48 50

Columbia
52 NEAREST TOWN 71

DRILLER INFORMATION

Samuel A. Connelly M W D 572
Driller's Name 76 License No. 81

Connelly & Associates, Inc.
Firm Name

260 Interstate Ct, Frederick MD 21704
Address

Samuel A. Connelly 11/17/15
Signature Date

B 4 **SOURCES OF DRILLING WATER**

1. private

2.

3.

10814 Vista Road
11 STREET ADDRESS 30

**ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)**

34 220 37
DISTANCE FROM ROAD ENTER FT OR MI 38 39

TAX MAP: 41 BLK: 5 PARCEL 304

B 2 **WELL INFORMATION**

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

22 INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL 2 geo bores

**NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL**

Howard 13
COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED 12/03/2015
43 MM DD YY 48 CO SIGNATURE EXP. DATE 12/31/16

APPROXIMATE DEPTH OF WELL 370 24 28 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

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

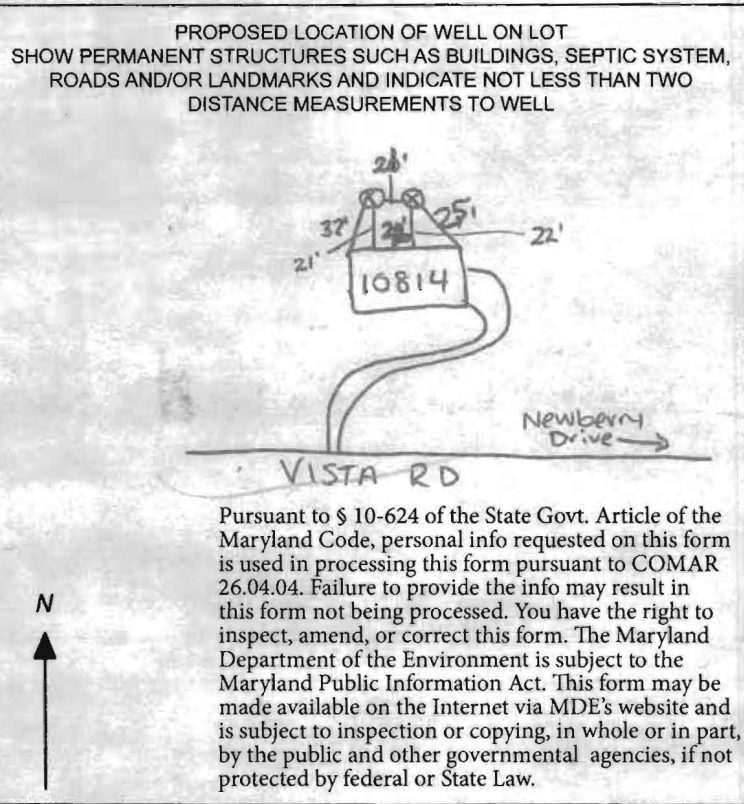
THIS WELL WILL DEEPEM AN EXISTING WELL

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)

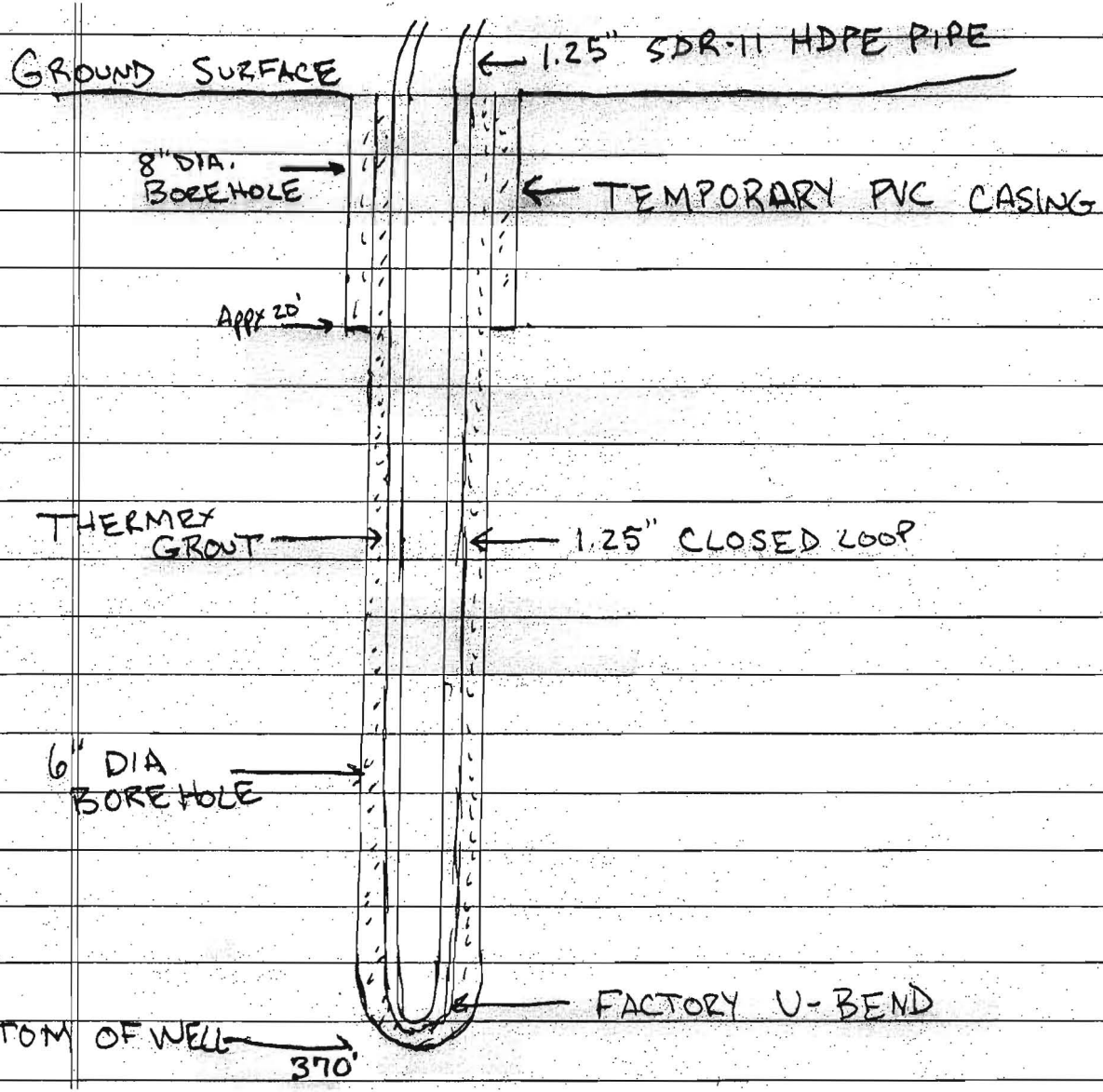
APPROX. PERMIT NUMBER - - - - - G - - - - -

PERMIT No. HO - 15 - 0188
70 71 72 73 74 75 76 77 78 79



SPECIAL CONDITIONS
NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED - wells must be grouted from bottom to top.

Geothermal Closed Loop – 10814 Vista Road, Columbia, MD






Grout information for this property is as follows:

Thermex grout mixture of 50 lb. grout to 17 gallons water, placed in the well using the tremie method, from bottom to top.

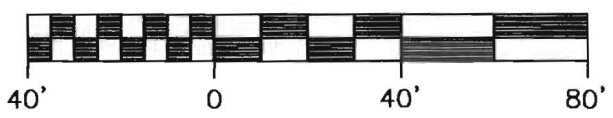
21' 22' 25'



L E G E N D

-  PROPOSED GEOTHERMAL WELL LOCATION
-  APPROXIMATE SAN. SEWER LINE
-  APPROXIMATE POTABLE WATER LINE

GRAPHICAL SCALE



P:\Geothermal\2015 Projects\Suprema Air\Callison\Documents\CAD PLAN.dwg

Connelly Geothermal
Partnering with Mother Earth

260 Interstate Court (301) 696-8820
Frederick, Maryland 21704 (301) 696-0327 fax

CALLISON RESIDENCE
10814 VISTA ROAD, COLUMBIA, MARYLAND

PROPOSED GEOTHERMAL WELL
LOCATION PLAN

Scale:
AS SHOWN

Fig.
1

Date:
NOV. 2015

Drawn By:
J.A.

Checked By:
E.S.

Project No.:
120200