

C1 2932

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.

COUNTY NUMBER

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

ST/CO USE ONLY DATE Received MM 09 DD 28 YY 10

DATE WELL COMPLETED MM 03 DD 09 YY 10

Depth of Well 22 340 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1800

OWNER Naumber, Dan STREET OR RFD 8203A Lincoln Drive TOWN Jessup SUBDIVISION SECTION LOT 13

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 handwritten entries: Dirt clay, Hard Grey & Green, 340' Geo Holes, 1st 60', 2nd 55', 3rd 65', 4th 55'.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 16 NO. OF POUNDS 800 GALLONS OF WATER 400 DEPTH OF GROUT SEAL (to nearest foot) from 2 ft. to 340 ft.

CASING RECORD

MAIN CASING TYPE 60 61 Nominal diameter top (main) casing (nearest inch)! PL 63 64 Total depth of main casing (nearest foot) 66 70

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

SCREEN RECORD

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

Table with columns: DEPTH (nearest ft.), 1-2, 8-9-11, 15-17, 21, 23-24-26, 30-32, 36, 38-39-41, 45-47, 51. Includes slot size and diameter of screen.

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

C3

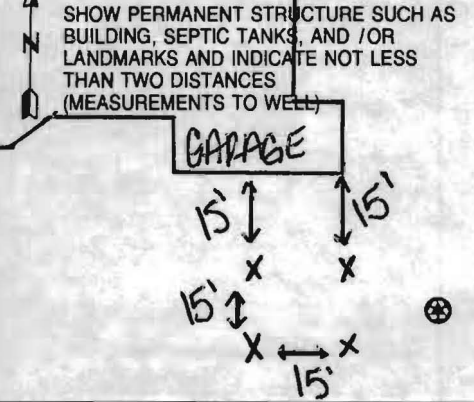
PUMPING TEST

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 (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 - below LAND SURFACE (nearest foot) 49 50 51

LOCATION OF WELL ON LOT



NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED Y N

CIRCLE APPROPRIATE LETTER 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.

DRILLER'S LIC. NO. 1 MW D 3552 DRILLER'S SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 MW D 559

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

B 1 3112

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-95-1860 fill in this form completely

W532497 please type

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13

Neumyer DAN 8203 Lincoln Drive Jessup MD 20794

B 3 HOWARD LOCATION OF WELL

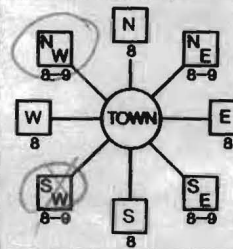
Resubdivision of the Cedars Lg2 SECTION 13 NEAREST TOWN Jessup MILES FROM TOWN 2

DRILLER INFORMATION

Michael Barlow MWD 355 Barlow Well Drilling 522 Underwood Lane 21014 1/4/10

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



8203 A Lincoln Drive

NEAR WHAT ROAD 30 ON WHICH SIDE OF ROAD NORTH DISTANCE FROM ROAD 30 FT ENTER FT OR MI 38 39 TAX MAP: 43 BLK: 8 PARCEL 516

B 2 WELL INFORMATION

APPROX. PUMPING RATE 0 GAL. PER MIN. AVERAGE DAILY QUANTITY NEEDED 0 GAL. PER DAY

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
GEO-THERMAL 4 Boreholes x 320'

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard (13) Public COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 1/28/2010 Brian Baker 1/28/2011 CO SIGNATURE EXP. DATE NORTH GRID 486 000 EAST GRID 859 000

APPROXIMATE DEPTH OF WELL 320 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT

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
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 DEEPEM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

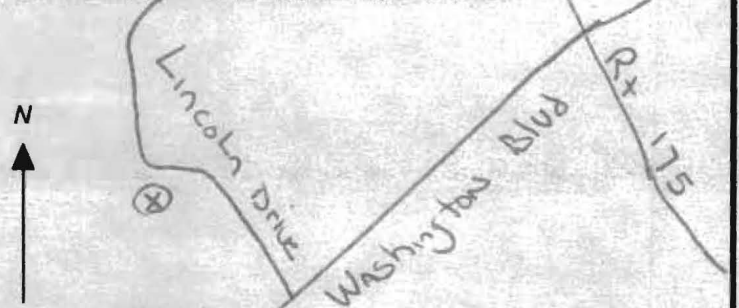
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

WRITE THE BOX NUMBER FROM THE MAP HERE

E 859 N 486

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

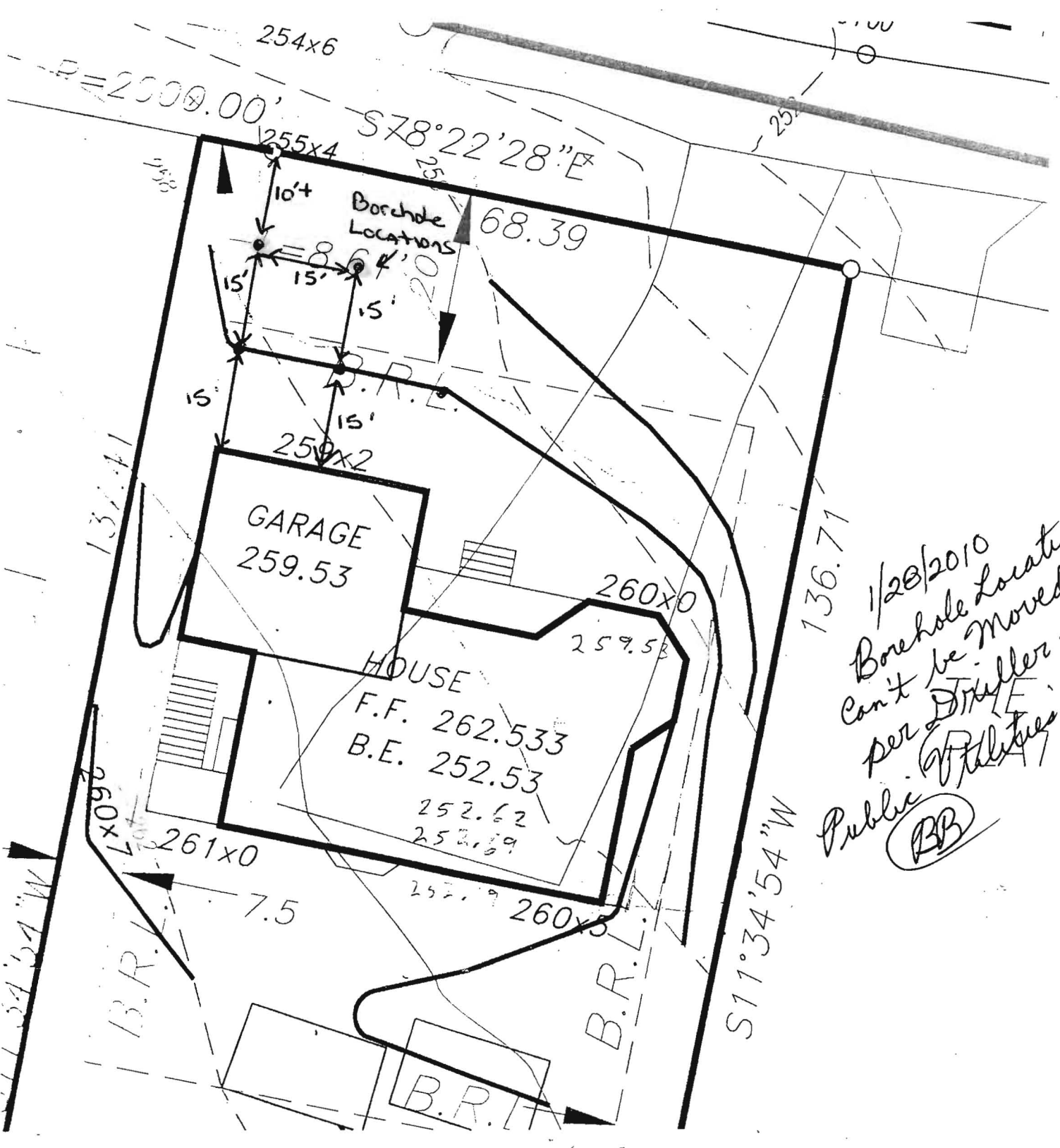


Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER G PERMIT No. HO-95-1860

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED Create the Boreholes From the Bottom Upward With Tremie Pipe



1/28/2010
 Borchole Locations
 Can't be moved
 per D. Miller -
 Public Utilities
 (BB)



Providing Quality Systems for Over 20 Years
Commercial & Residential Water Well Drilling
Test Borings & Consulting • Geothermal Drilling & Systems
NGWA & IGSHPA Certified

January 4, 2010

Howard County Health Department
7178 Columbia Gateway Drive
Columbia, MD 21046
Fax: 410-313-2648

Re: 8203 A Lincoln Drive

Dear Department of Environment:

Please note unless otherwise specified all geothermal bores installed by our company will be installed as follows:

Grout: Bentonite Grout 20% solids minimum
Manufacture(s): Baroid or Wyo-Ben
Will be grouted from the bottom to the top with grout material

Piping: Polyethylene SDR 11 160 PSI as recommended per IGSHPA
Manufacture: EnDot or Charter Plastics or equal, Size 1" or 1 1/4"
IGSHPA Certification Number 12687

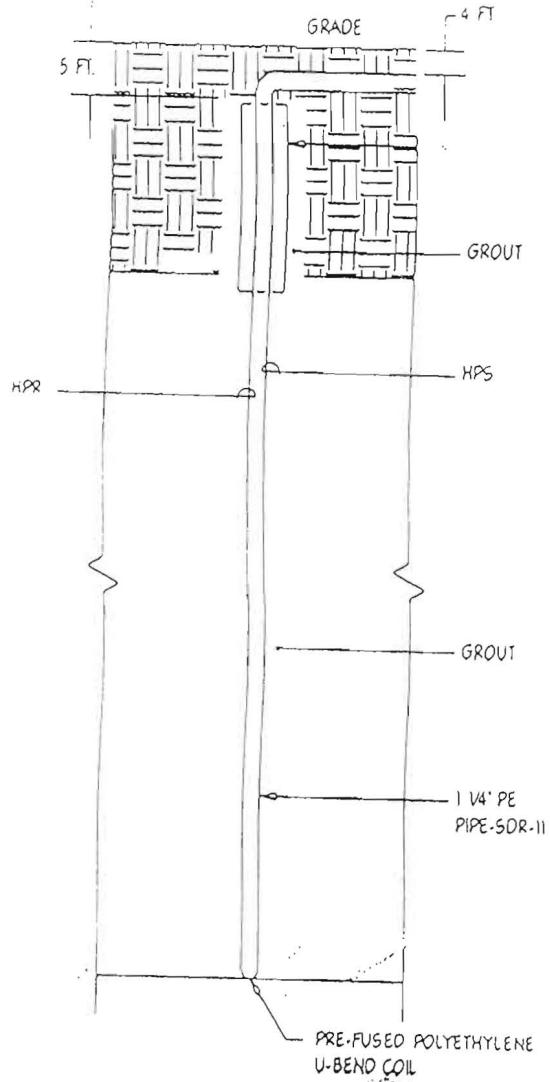
Also attached is a cross section diagram of the bore hole.

We would appreciate your help in getting this permit released as soon as possible so that we can expedite this project. If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Barlow', written in a cursive style.

Michael Barlow



4 TYPICAL BORE HOLE DETAIL
 1/1.00 NOT TO SCALE