

C1 1485

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 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER

ST/CO USE ONLY DATE Received MM 11 DD 12 YY 10

DATE WELL COMPLETED MM 10 DD 11 YY 10

Depth of Well 22 225 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" 10-95-1989

OWNER: Travis Wayne, STREET OR RFD: 9918 Ferndale Ave, TOWN: Columbia, SUBDIVISION: SECTION: LOT: 18

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, FEET TO, check if water bearing. Includes entries for Soil Clay, Brown Shale, and Schist.

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED: YES (Y) NO (N)

- 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...

DRILLERS LIC. NO. 1 MWD 355, DRILLERS SIGNATURE

LIC. NO. 1 D

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

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES (Y) NO (N)

TYPE OF GROUTING MATERIAL (Circle one) CEMENT (CM) BENTONITE CLAY (BC)

NO. OF BAGS 11 NO. OF POUNDS 500

GALLONS OF WATER 215

DEPTH OF GROUT SEAL (to nearest foot) from 2 ft. to 225 ft.

CASING RECORD

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

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

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

SCREEN RECORD

ST STEEL, BR BRASS, HO OPEN HOLE, PL PLASTIC, OT OTHER

DEPTH (nearest ft.)

Table with columns: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

DIAMETER OF SCREEN (NEAREST INCH) 56 60

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) 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

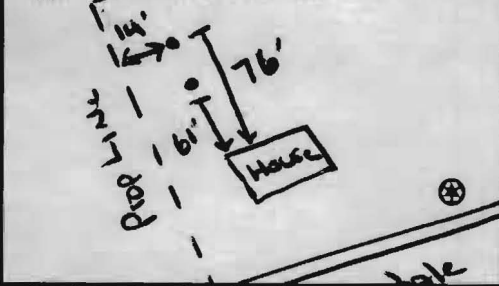
PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



B 1 4650 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 533991 3/9/2011

STATE PERMIT NUMBER HO-95-1989 fill in this form completely 79

Date Received (APA) 08 25 10 OWNER INFORMATION Davis Wayne 9918 Ferndale Ave Columbia MD 21046

B 3 LOCATION OF WELL COUNTY Howard SUBDIVISION Allview Estates SECTION 44 46 LOT 18 Block 0 NEAREST TOWN Columbia MILES FROM TOWN 1

DRILLER INFORMATION Michael Barlow MWD355 Barlow Well Drilling 522 Underwood Lane 21014 8/18/10

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NEAR WHAT ROAD (9918) Ferndale Ave DISTANCE FROM ROAD 165 FT TAX MAP: 36 BLK: 20 PARCEL 216

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) G GEO-THERMAL 2 bores x 225'

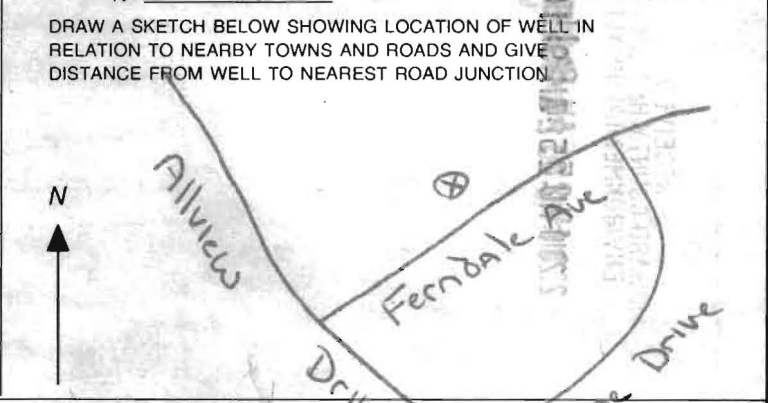
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard (13) Public COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 9/8/2010 CO SIGNATURE EXP. DATE 9/8/2010 NORTH GRID 493 EAST GRID 841

APPROXIMATE DEPTH OF WELL 225 FEET APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST TOWN

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER WRITE THE BOX NUMBER FROM THE MAP HERE E 8401 N 4903

METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-Percussion ROTARY (Hydraulic Rotary) CABLE REverse-ROTary Drive-POINT other

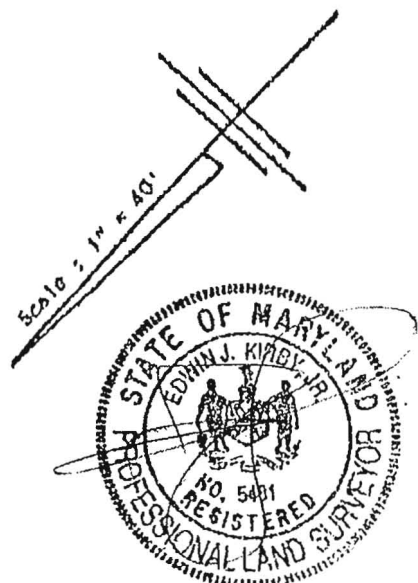
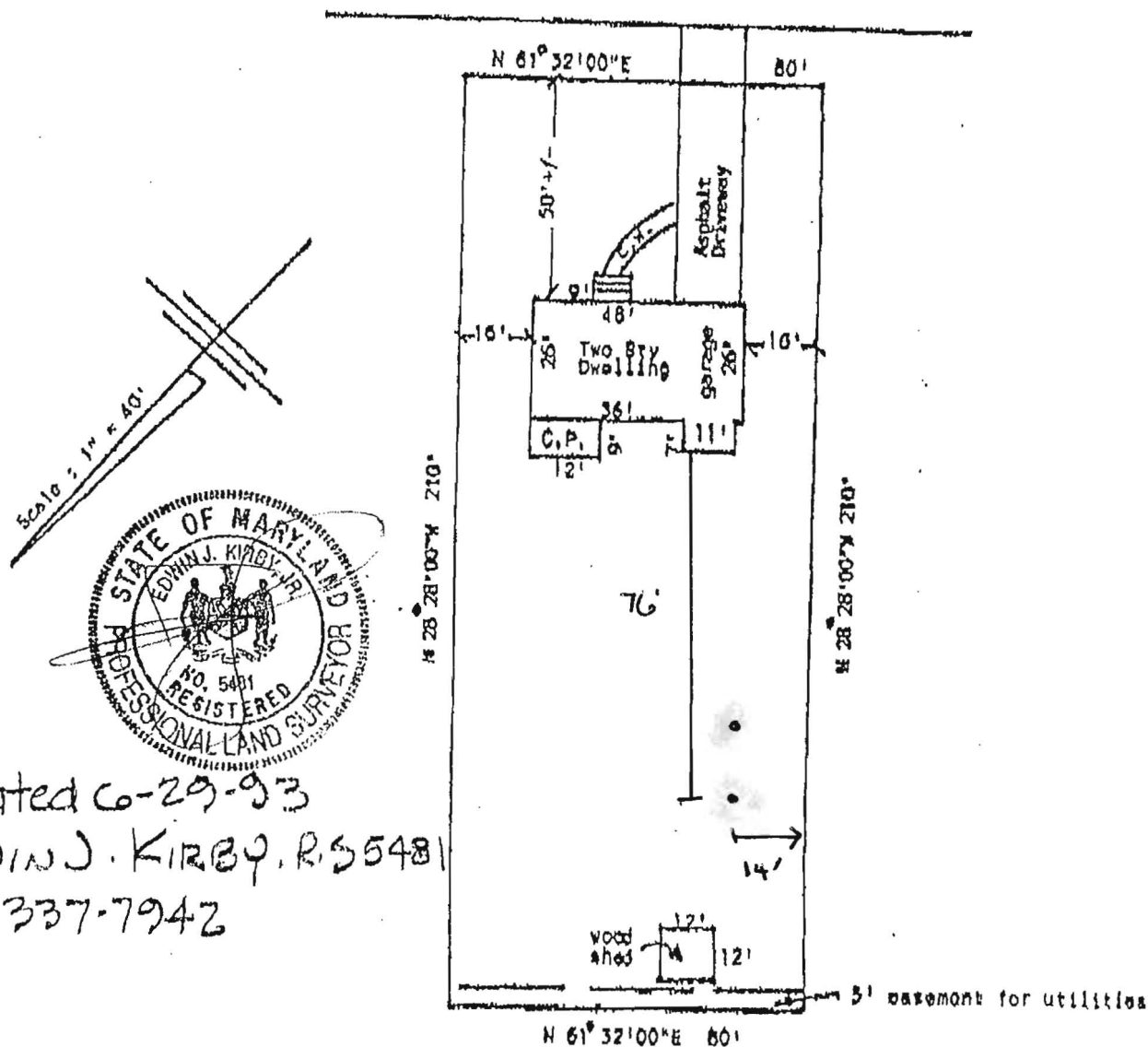
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPM AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41



Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROX. PERMIT NUMBER G PERMIT No. HO-95-1989

SPECIAL CONDITIONS NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

FERNDALE AVENUE



Updated 6-29-93
 EDWIN J. KIRBY, R.S. 5401
 (410) 337-7942

This is to certify that I have located the improvements on the property known as: Lot No. 18, Block O, part of Block J, O, P, R & K, Allview Estates, Plat Book No. 6, Folio 34, Howard County, Maryland, also known as 9918 Ferndale Avenue, Howard County, Maryland, and the improvements are located as shown.

- NOTE:
1. This plat is not intended for the use in the establishment of property lines or corners.
 2. The subject property lies in zone C, FEMA MAP NO. 240044 0034B, December 14, 1986.

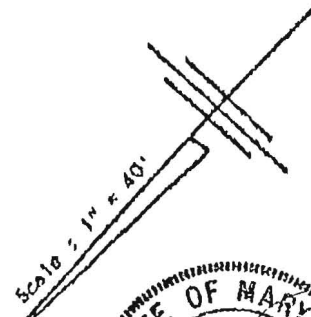
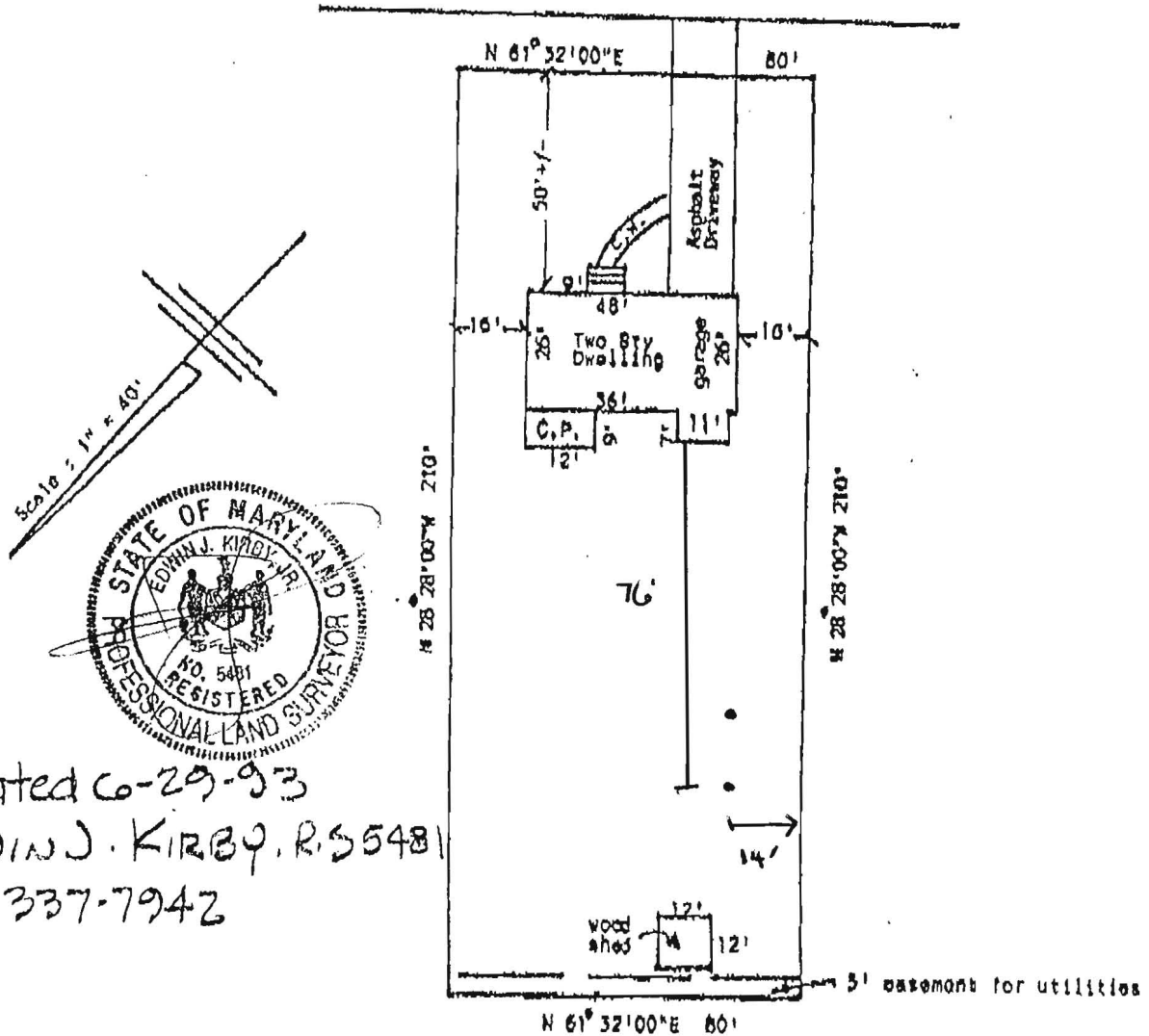
Location Survey Services
 1055 Taylor Avenue, Suite 100
 Towson, MD 21204
 301-296-2040



Signed this 19th day of April, 1999

Gerardo P. Dela Cruz
 Land Surveyor

FERNDALE AVENUE



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 EDWIN J. KIRBY, R.S. 5481
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Celacio P. Osla Cruz
 Land Surveyor
 Md. Reg. No. 8439



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

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

August 18, 2010

Re: 9918 Ferndale Avenue

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

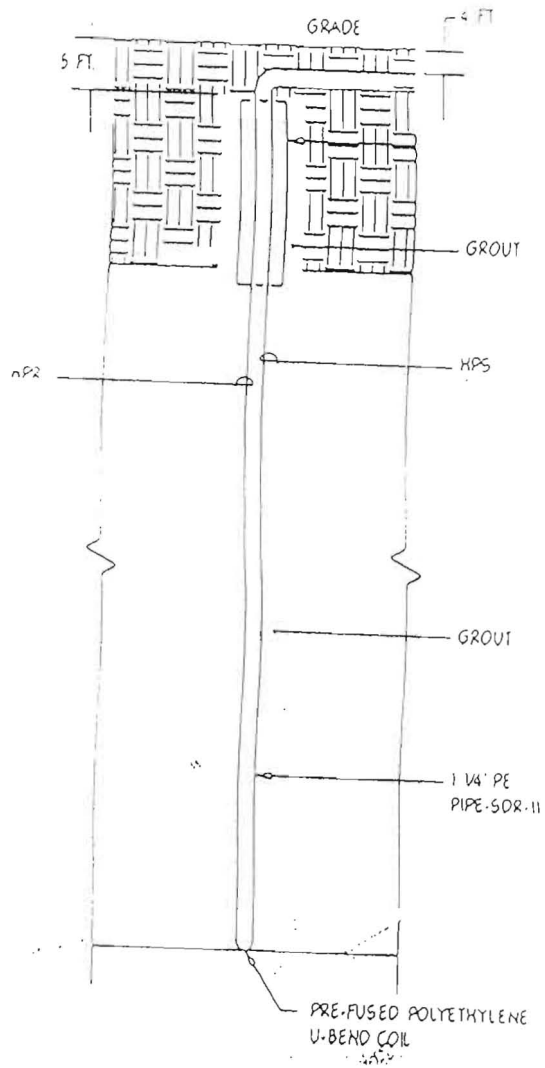
Piping: Polyethylene SDR 11 160 PSI as recommended per IGSHPA
Manufacture: EnDot or Charter Plastics or equal, Size 1" or 1 1/4"
IGSHPA Certification Number 12687

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,

Michael Barlow



4
M1.00
 TYPICAL BORE HOLE DETAIL
 NOT TO SCALE