

C 1 16519

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

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER, WELL SITE ADDRESS, SUBDIVISION, SECTION, LOT

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 Brown Clay, Gray Clay, Granite, Broken Granite, etc.

NUMBER OF UNSUCCESSFUL WELLS:

WELL HYDROFRACTURED

CIRCLE APPROPRIATE LETTER A, E, P

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04

DRILLERS LIC. NO. 1 MSD 028

DRILLERS SIGNATURE

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

GROUTING RECORD

WELL HAS BEEN GROUTED (Y/N), TYPE OF GROUTING MATERIAL (CEMENT, BENTONITE CLAY), NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL

CASING RECORD

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

OTHER CASING (if used) diameter, depth (feet)

SCREEN RECORD

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

DEPTH (nearest ft.)

Table with columns: E, A, C, H, S, R, E, E, N and rows for casing depth 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)

TELESCOPE CASING, LOG INDICATOR, OTHER DATA

C 3

PUMPING TEST, HOURS PUMPED

PUMPING RATE (gal. per min.), METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface) BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test) A, C, J, P, R, S, T, O

PUMP INSTALLED

DRILLER INSTALLED PUMP (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)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE

LATITUDE 39.12.298, LONGITUDE 76.44.890 (DEFAULT COORD. WGS 84)

NOTES:

C1 18520

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)

COUNTY NUMBER

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 7-31-12

Depth of Well 266 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HD-95-2345

OWNER: Monty Michael; WELL SITE ADDRESS: 2021 Dicks Run Rd; TOWN: Elkridge; SUBDIVISION: Dicks Run; SECTION: ; LOT: 6

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Tan Clay, Red Clay, Gray Clay, Granite, Broken Granite, etc.

GROUTING RECORD: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL: CEMENT (CM), BENTONITE CLAY (BC), NO. OF BAGS: 10, NO. OF POUNDS: 300, GALLONS OF WATER: 250, DEPTH OF GROUT SEAL: 0

CASING RECORD: MAIN CASING TYPE: STEEL (ST), Nominal diameter: 60 inch, Total depth: 66 feet

OTHER CASING (if used) section with diameter and depth fields.

SCREEN RECORD: screen type or open hole: STEEL (ST), BRASS (BR), OPEN HOLE (HO), PLASTIC (PL), OTHER (OT)

NUMBER OF UNSUCCESSFUL WELLS: 0; WELL HYDROFRACTURED: NO (N)

CIRCLE APPROPRIATE LETTER: A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

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.: MSD 28; DRILLERS SIGNATURE: Michael Kohler

LIC. NO.: MSD 28; SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

DEPTH (nearest ft.) table with columns 1-21; 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

PUMPING TEST: PUMPING TEST; HOURS PUMPED: 8.9; PUMPING RATE: 1600 gpm; METHOD USED TO MEASURE PUMPING RATE; WATER LEVEL: BEFORE PUMPING 17-20 ft, WHEN PUMPING 22-25 ft; TYPE OF PUMP USED: CENTRIFUGAL (C)

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) above/below LAND SURFACE (nearest foot) 49-51

LATITUDE 39.12.297; LONGITUDE 76.44.890 (DEFAULT COORD. WGS 84)

NOTES:

B 1 **09922** SEQUENCE NO. (MDE USE ONLY) STATE OF MARYLAND STATE PERMIT NUMBER  
 1 2 3 6 4 5 6 7 8 9 0  
**537391** APPLICATION FOR PERMIT TO DRILL WELL please type Ho - 95 - 2345  
 70 fill in this form completely 79

Date Received (APA) 07 09 12  
 8 MM DD YY 13  
**OWNER INFORMATION**  
 15 Last Name Montag Owner Michael First Name 34  
 36 6021 Duckey's Run Rd Street or RFD 55  
Elkridge MD 21075  
 57 Town 70 State 72 Zip 76

B 3 **LOCATION OF WELL**  
Howard COUNTY 21  
Duckey's Run SUBDIVISION 42  
 SECTION 6 LOT 6  
 44 46 48 50  
 52 NEAREST TOWN 71

**DRILLER INFORMATION**  
Michael J. Kohler M S D 028  
 Driller's Name 76 License No. 81  
Eichelberger's Inc  
 Firm Name  
1755 Wilson Ln York Pa 17406  
 Address  
Michael J Kohler  
 Signature Date

B 4 **SOURCES OF DRILLING WATER**  
 1. Approved 11 STREET ADDRESS 30  
 2. 6021 Duckey's Run Rd  
 3. ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 NORTH N  
 WEST W 2 EAST E  
 SOUTH S  
 34 135 37 DISTANCE FROM ROAD 38 39  
 ENTER FT OR MI FT  
 TAX MAP: 37 BLK: \_\_\_\_\_ PARCEL 478

B 2 **WELL INFORMATION**  
 1 APPROX. PUMPING RATE (GAL. PER MIN.) 12  
8  
 2 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 20  
14

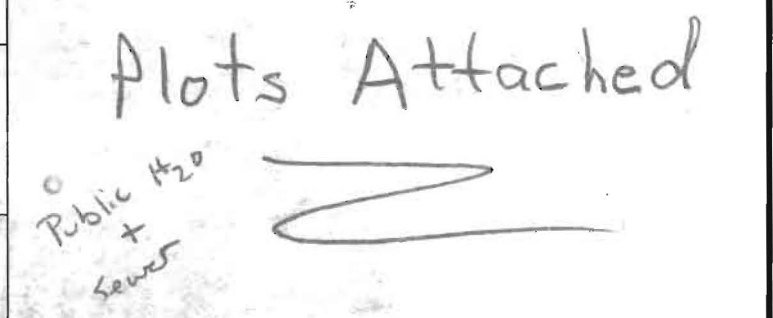
**USE FOR WATER** (CIRCLE APPROPRIATE BOX)  
 D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 I INDUSTRIAL, COMMERCIAL, DEWATERING  
 P PUBLIC WATER SUPPLY WELL  
 T TEST, OBSERVATION, MONITORING  
 O OPEN LOOP GEOTHERMAL  
 C CLOSED LOOP GEOTHERMAL  
 22 3 Bores

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**  
Howard COUNTY NAME (13) COUNTY NO.  
 STATE SIGNATURE \_\_\_\_\_ INSERT S →  
 DATE ISSUED 7/20/12 Ph. M. Nuff 3/26/13  
 43 MM DD YY 48 CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL 266 FEET  
 24 28  
 APPROXIMATE DIAMETER OF WELL 6 INCH  
 NEAREST

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

**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 DEEPEINED 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  
 39  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 DEEPEIN AN EXISTING WELL  
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 \_\_\_\_\_ 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**  
 APPROP. PERMIT NUMBER \_\_\_\_\_ G \_\_\_\_\_  
 PERMIT No. Ho-95-2345  
 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS Grout bores bottom to top. All grouts must be

called in 24 hrs prior to starting

\*\*\*\*\*  
 WATER WELL ABANDONMENT-SEALING REPORT FORM  
 \*\*\*\*\*

SUBMIT COPIES OF COMPLETED FORM TO:

- \* COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- \* WELL OWNER
- \* MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 7-31-12 (month/day/year)

\* PERMIT NUMBER OF ABANDONED WELL (if any)

HO-95-2345

\* PERMIT NUMBER OF REPLACEMENT WELL:

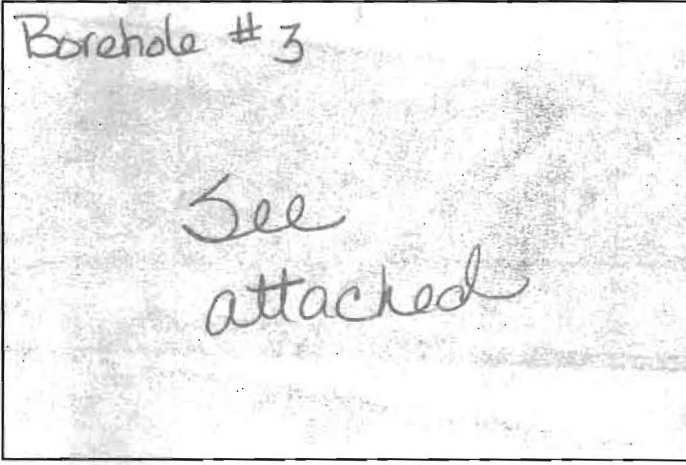
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\* PERSON ABANDONING WELL: Eichelbergers Inc WELL DRILLER'S LICENSE NUMBER: 028  
 CIRCLE: MWD / MSD / MGD

\* OWNER'S NAME: Michael Montag

\* WELL LOCATION:  
 COUNTY: Howard  
 NEAREST TOWN: Elkridge  
 TAX MAP 37 BLOCK PARCEL 478  
 SUBDIVISION: Dockey's Run  
 SECTION: LOT: 6  
 STREET ADDRESS: 6021 Dockey's Run Rd

SITE LOCATION MAP



LATITUDE 39.12.296

LONGITUDE 76.44.889

Michael J. Kohler MSD-028  
8-6-12

\* TYPE OF WELL BEING ABANDONED:  
 DRILLED  JETTED  
 BORED  HAND DUG  
 OTHER (specify) \_\_\_\_\_

LOG OF SEALING MATERIAL

\* USE CODE: DOMESTIC  MUNICIPAL/PUBLIC  
 IRRIGATION  INDUSTRIAL  
 TEST/OBSERVATION  GEOTHERMAL

\* TYPE OF CASING:  
 STEEL  PLASTIC  
 CONCRETE  OTHER (specify) \_\_\_\_\_

SIZE OF CASING: \_\_\_\_\_ INCHES IN DIAMETER

DEPTH OF WELL: 2160 FEET DEEP

WAS ANY CASING REMOVED?  YES  NO  
 If yes, length removed, in feet: \_\_\_\_\_

WAS CASING RIPPED OR PERFORATED?  YES  NO

MATERIAL	FEET	
	FROM	TO
<u>Barotherm Cold Sand</u>	<u>2160</u>	<u>Surface</u>
VOLUME OF MATERIAL USED		
<u>Barotherm - 600 lbs</u>		
<u>Sand - 2400 lbs</u>		



\*\*\*\*\*  
 WATER WELL ABANDONMENT-SEALING REPORT FORM  
 \*\*\*\*\*

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- \* WELL OWNER
- \* MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 7-31-12 (month/day/year)

\* PERMIT NUMBER OF ABANDONED WELL (if any)

HO-95-2345

\* PERMIT NUMBER OF REPLACEMENT WELL:

\* PERSON ABANDONING WELL: Eichelbergers Inc WELL DRILLER'S LICENSE NUMBER: 028

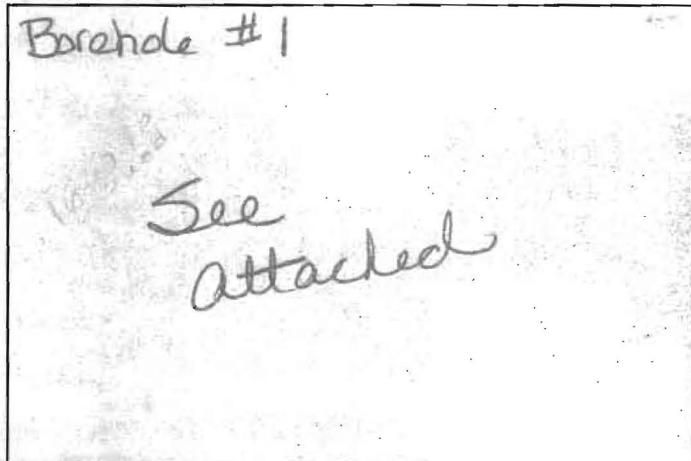
CIRCLE: MWD / MSD / MGD

\* OWNER'S NAME: Michael Montag

\* WELL LOCATION:

SITE LOCATION MAP

COUNTY: Howard  
 NEAREST TOWN: Elkridge  
 TAX MAP 37 BLOCK PARCEL 478  
 SUBDIVISION: Duckey's Run  
 SECTION: 6 LOT: 6  
 STREET ADDRESS: 6021 Duckey's Run Rd



LATITUDE 39.12 + 298

LONGITUDE 76.44 890

Michael J. Koller MSO-028  
8-6-12

\* TYPE OF WELL BEING ABANDONED:

- DRILLED  JETTED
- BORED  HAND DUG
- OTHER (specify) \_\_\_\_\_

LOG OF SEALING MATERIAL

\* USE CODE: DOMESTIC

- IRRIGATION  MUNICIPAL/PUBLIC
- TEST/OBSERVATION  INDUSTRIAL
- \_\_\_\_\_  GEOTHERMAL

\* TYPE OF CASING:

- STEEL  PLASTIC
- CONCRETE  OTHER (specify) \_\_\_\_\_

SIZE OF CASING: \_\_\_\_\_ INCHES IN DIAMETER

DEPTH OF WELL: 266 FEET DEEP

WAS ANY CASING REMOVED?  YES  NO

If yes, length removed, in feet: \_\_\_\_\_

WAS CASING RIPPED OR PERFORATED?  YES  NO

MATERIAL	FEET	
	FROM	TO
<u>Barotherm Cold Sand</u>	<u>0</u>	<u>266</u>
VOLUME OF MATERIAL USED		
<u>450 lbs Barotherm Sand - 1600 lbs</u>		

\*\*\*\*\*  
 WATER WELL ABANDONMENT-SEALING REPORT FORM  
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08 10 12  
 SUBMIT COPIES OF COMPLETED FORM TO:

- \* COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- \* WELL OWNER
- \* MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 7-31-12 (month/day/year)

\* PERMIT NUMBER OF ABANDONED WELL (if any)

HO -95 - 2345

\* PERMIT NUMBER OF REPLACEMENT WELL:

\* PERSON ABANDONING WELL: Fischerbergers Inc

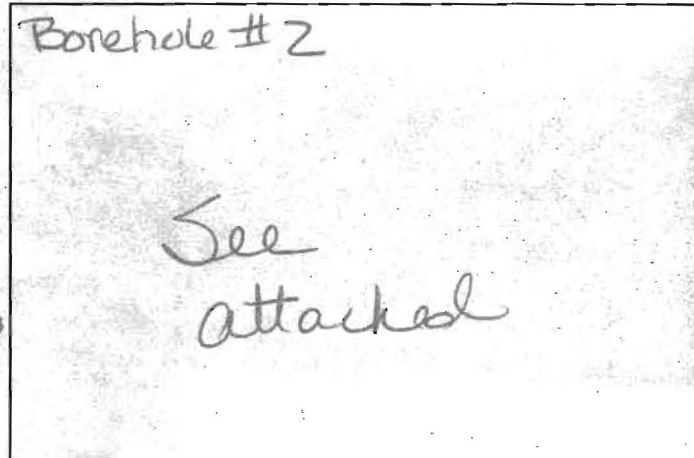
WELL DRILLER'S LICENSE NUMBER: 028  
 CIRCLE: MWD / MSD / MGD

\* OWNER'S NAME: Michael Montag

\* WELL LOCATION:

SITE LOCATION MAP

COUNTY: Howard  
 NEAREST TOWN: Elkridge  
 TAX MAP 37 BLOCK PARCEL 478  
 SUBDIVISION: Duckey's Run  
 SECTION: \_\_\_\_\_ LOT: 6  
 STREET ADDRESS: 6021 Duckey's Run Rd



LATITUDE 39.12.297

LONGITUDE 76.44.890

Michael J. Kohler m50-028  
8-6-12

\* TYPE OF WELL BEING ABANDONED:

- DRILLED  JETTED
- BORED  HAND DUG
- OTHER (specify) \_\_\_\_\_

LOG OF SEALING MATERIAL

\* USE CODE: DOMESTIC

- IRRIGATION  MUNICIPAL/PUBLIC
- TEST/OBSERVATION  INDUSTRIAL
- \_\_\_\_\_  GEOTHERMAL

\* TYPE OF CASING:

- STEEL  PLASTIC
- CONCRETE  OTHER (specify) \_\_\_\_\_

SIZE OF CASING: \_\_\_\_\_ INCHES IN DIAMETER

DEPTH OF WELL: 266 FEET DEEP

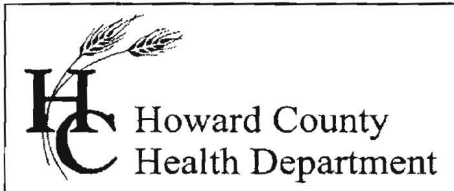
WAS ANY CASING REMOVED? YES  NO

If yes, length removed, in feet: \_\_\_\_\_

WAS CASING RIPPED OR PERFORATED? YES  NO

MATERIAL	FEET	
	FROM	TO
<u>Barbtherrm Gold Sand</u>	<u>266</u>	<u>surface</u>
VOLUME OF MATERIAL USED		
<u>Barbtherrm - 500 lbs</u>		
<u>Sand - 2000 lbs</u>		





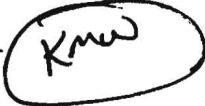
Bureau of Environmental Health  
7178 Gateway Drive Columbia, MD 21046  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

**IMPORTANT**

MEMORANDUM

TO: Eichelberger's Inc.  
Attn: Michael J. Kohler, MSD 028  
FILE

FROM: Kevin M. Wolf, R.S., R.E.H.S.   
Well and Septic Program  
Groundwater Mgmt. Sec.

DATE: July 20<sup>th</sup>, 2012

RE: Geothermal Wells  
*6021 Duckey's Run Road, Montag Property*

The following comments are to accompany the above aforementioned geo well application:

Site Plan's that are submitted with well permits must clear and legible, to scale or the plan showing nominal distances from features on the property (house, row, property lines, etc...) to the geobores and indicates other pertinent features and structures on, or to be constructed on, the property; this includes but not limited to wells, and septic's.

In conjunction with this statement and current regulations, geothermal bores must be separated by 30' to any potable wells and 50' to any adjacent septic's if geobores are up-gradient and 100' separation if down-gradient. Bores must also be 15' removed from foundations of structures and right-of-way's and 10' removed from all property lines.

KMW  
Cc: file





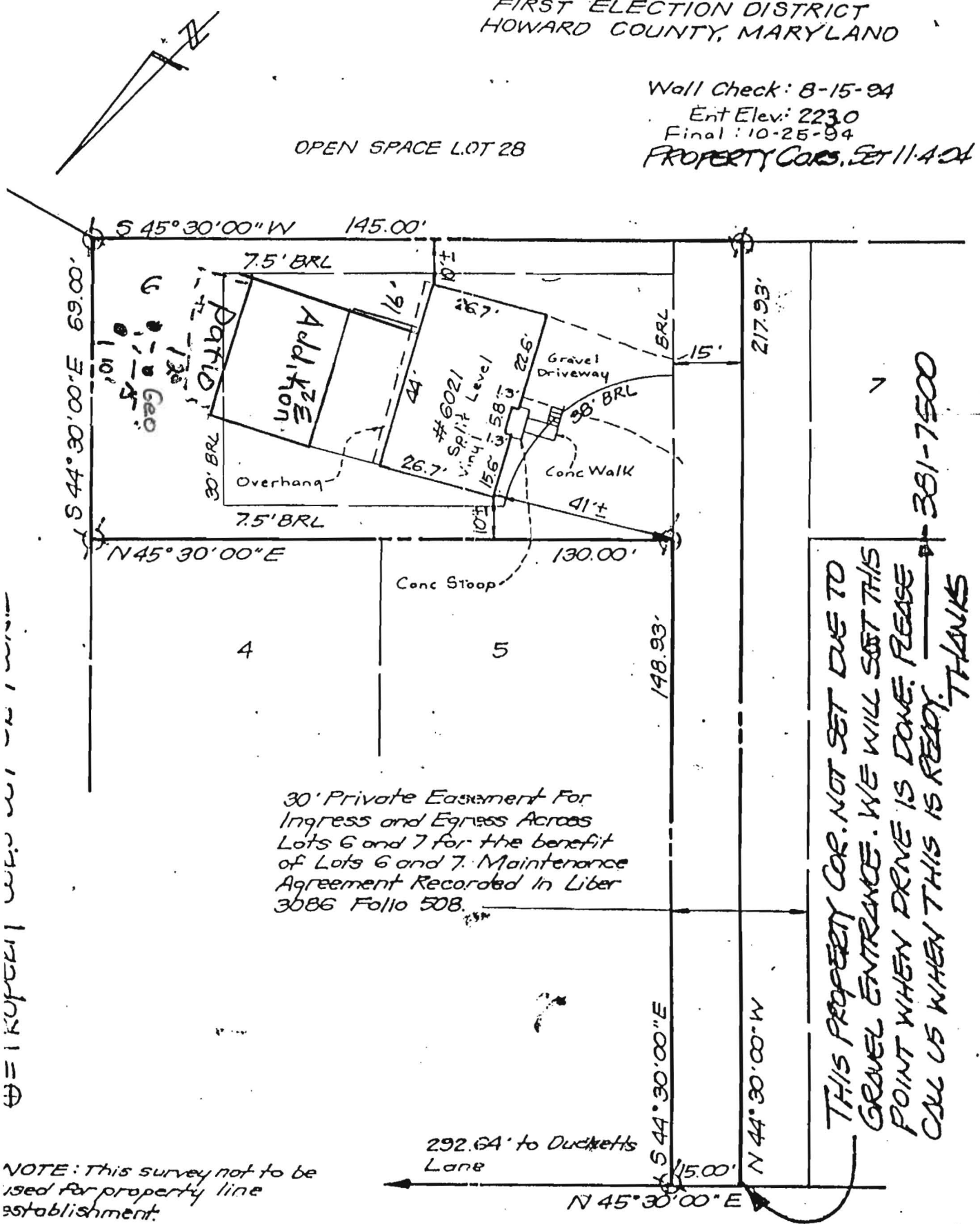


NOTE: THIS LOT LIES IN AN AREA CLASSIFIED AS ZONE-C. AREA OF MINIMAL FLOODING, AS SHOWN ON FIRM MAP OF HOWARD COUNTY Md., Community Panel Number 400440035 B, Panel 35 of 45, DATED DEC. 4, 1986.

LOCATION OF HOUSE  
 6021 DUCKEY'S RUN  
 LOT 6  
**DUCKEY'S RUN**  
 LOTS 1-28  
 TAX MAP 37 PARCEL 478  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

Wall Check: 8-15-94  
 Ent Elev: 2230  
 Final: 10-25-94  
 PROPERTY CAR. SET 11-4-94

OPEN SPACE LOT 28



30' Private Easement For Ingress and Egress Across Lots 6 and 7 for the benefit of Lots 6 and 7. Maintenance Agreement Recorded in Liber 3686 Folio 508.

THIS PROPERTY CAR. NOT SET DUE TO GRAVEL ENTRANCE. WE WILL SET THIS POINT WHEN DRIVE IS DONE. PLEASE CALL US WHEN THIS IS READY. THANKS

381-7500

NOTE: This survey not to be used for property line establishment.

6021 DUCKEY'S RUN LOT 6