

C1 9021

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.

1 2 3 6 (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 7 15 09

Depth of Well 22 200 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO 95-1738

OWNER Ziegler Natalie STREET OR RFD 4288 Manor Lane TOWN ELlicott City SUBDIVISION Carroll-Ziegler P.O. SECTION LOT 7

WELL LOG Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Brown sand, Brown shale, Gray Limestone, Dryholes cement cutting.

GROUTING RECORD Form: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM), CEMENT (CM), BENTONITE CLAY (BC), NO. OF BAGS (26), NO. OF POUNDS (2449), GALLONS OF WATER (156), DEPTH OF GROUT SEAL (0 to 40 ft).

CASING RECORD Form: casing types (ST, CO, PL, OT), MAIN CASING TYPE (ST), Nominal diameter (06), Total depth (42).

OTHER CASING (if used) Table with columns: diameter inch, depth (feet) from, to.

SCREEN RECORD Form: screen type (ST, BR, HO, PL, OT), insert appropriate code below.

NUMBER OF UNSUCCESSFUL WELLS: 5. WELL HYDROFRACTURED: Y. CIRCLE APPROPRIATE LETTER: A, E, P.

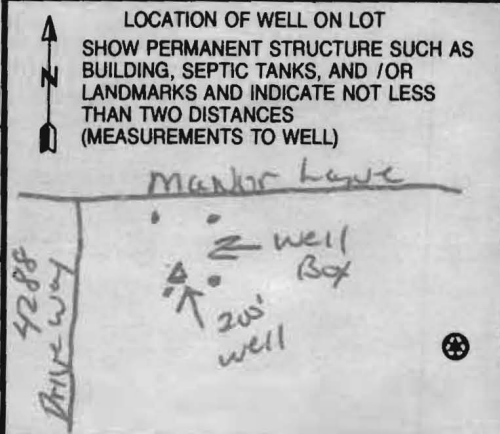
C2 DEPTH (nearest ft.) Table: 1 42 200, 2 42 200, 3 42 200. SLOT SIZE 1 2 3. DIAMETER OF SCREEN (NEAREST INCH) 58 60.

C3 PUMPING TEST Form: HOURS PUMPED (03), PUMPING RATE (12), METHOD USED TO MEASURE PUMPING RATE (19 gal), WATER LEVEL (20 ft before, 29 ft when pumping), TYPE OF PUMP USED (S).

PUMP INSTALLED Form: DRILLER INSTALLED PUMP (NO), TYPE OF PUMP INSTALLED (29), CAPACITY: GALLONS PER MINUTE (31-36), PUMP HORSE POWER (37-41), PUMP COLUMN LENGTH (43-47), CASING HEIGHT (49), LAND SURFACE (02 foot).

DRILLERS LIC. NO. 1 M SD 009, DRILLERS SIGNATURE Allen Compton, LIC. NO. 1 D.

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) Form: GRAVEL PACK, TELESCOPE CASING, LOG INDICATOR, OTHER DATA.



B 1 5692

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL

STATE PERMIT NUMBER

#0-95-1738

530290 please print or type

fill in this form completely

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13

Ziegler, Natalie

4288 Manor Lane

Ellicott City, Md 21042

B 3

LOCATION OF WELL

Howard

Carroll-Ziegler Property

Ellicott City

Ellicott City

MILES FROM TOWN (enter 0 if in town) 7

DRILLER INFORMATION

Allen Compton M SD 009

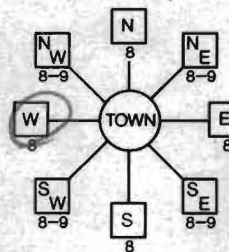
Eagles Well Drilling

6003 Woodbine Rd

Allen Compton 1-26-09

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



3841 Manor Lane

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

100 FT

DISTANCE FROM ROAD

TAX MAP: 23 BLK: 10 PARCEL 50

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION (circled)
FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
INDUSTRIAL, COMMERCIAL, DEWATERING
PUBLIC WATER SUPPLY WELL
TEST, OBSERVATION, MONITORING
GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard AS23238

COUNTY NAME COUNTY NO. STATE SIGNATURE

DATE ISSUED 1/29/09

CO SIGNATURE EXP. DATE

NORTH GRID 516 000 EAST GRID 830 000

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTary

JETTED AIR-Percussion

Jetted & DRIVEN ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary

DRive-POINT

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL (circled)
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 DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

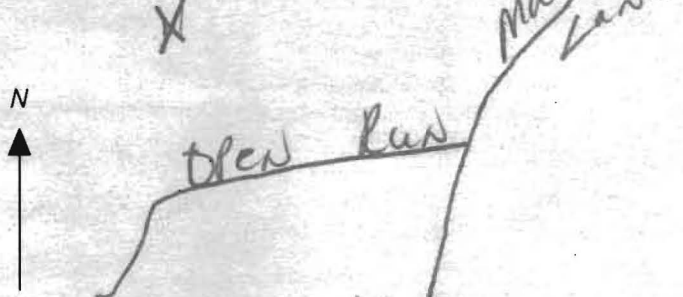
- 1. Water (Radium)
2. Sample Collected
3. During Yield Test

WRITE THE BOX NUMBER FROM THE MAP HERE

E 826-30

N 570-16

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 54 G A P 63

PERMIT No. #0-95-1738

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED. Radium Samples needed @ Yield Test

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: K.H. PLUMBING, INC. Telephone #: 410-259-5910
Address: 470 DORRIS DR.
WESTMINSTER, MD 21158

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:
Name (Print): KEITH HUNDERTMARK License# 8300

***A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.**

Name of Property Owner: DICOCO Telephone #: 410-977-8927
Subdivision: Carroll-Ziegler Property Lot #: 7 Well Tag #: HO95-1738
Site Address: 11120 DORSCH FARM RD.

Submersible Pump Data

Make: Myers
Model #: 2ST102-81HP
Pump Capacity: 8 GPM
Well Yield: 12 GPM

Pitless Adapter

Make: American Can by
Model #: PT 800
Depth: 42" (36" min)
NSF/WSC approved: YES

Well Cap and Electric Conduit

Two piece watertight cap: ✓
Screened, vented well cap: ✓
Cap secured to casing: ✓
Conduit min 18" B.G.: ✓
Conduit secured to well cap: ✓

Depth of well encountered at time of pump installation: 200 (feet)
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used- Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

Piping to house

Type: poly 1" IPS-PE3408
PSI: 160 (160 psi min)
Depth of supply line: 42" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: yes
Length of sleeve (5' minimum from foundation): 95"
Sleeve sealed properly: Ferncor

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: Keith Hundertmark date: 2-24-14

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: 2/23/14 Date Insp. Approved: 3/4/14 Inspector: (KW)

- Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade ✓
- Two piece cap installed and attached to casing securely ✓
- Elec. conduit extends at least 18" below grade/attached to cap properly ✓
- Safety rope not outside of well cap/casing ✓
- Correct well tag attached properly and casing 8" above finished grade ✓
- Water supply line sleeved adequately at house connection ✓
- Adequate grout observed below pitless adapter ✓



Bureau of Environmental Health
 7178 Columbia Gateway Drive, Columbia, MD 21046-2147
 (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

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location:

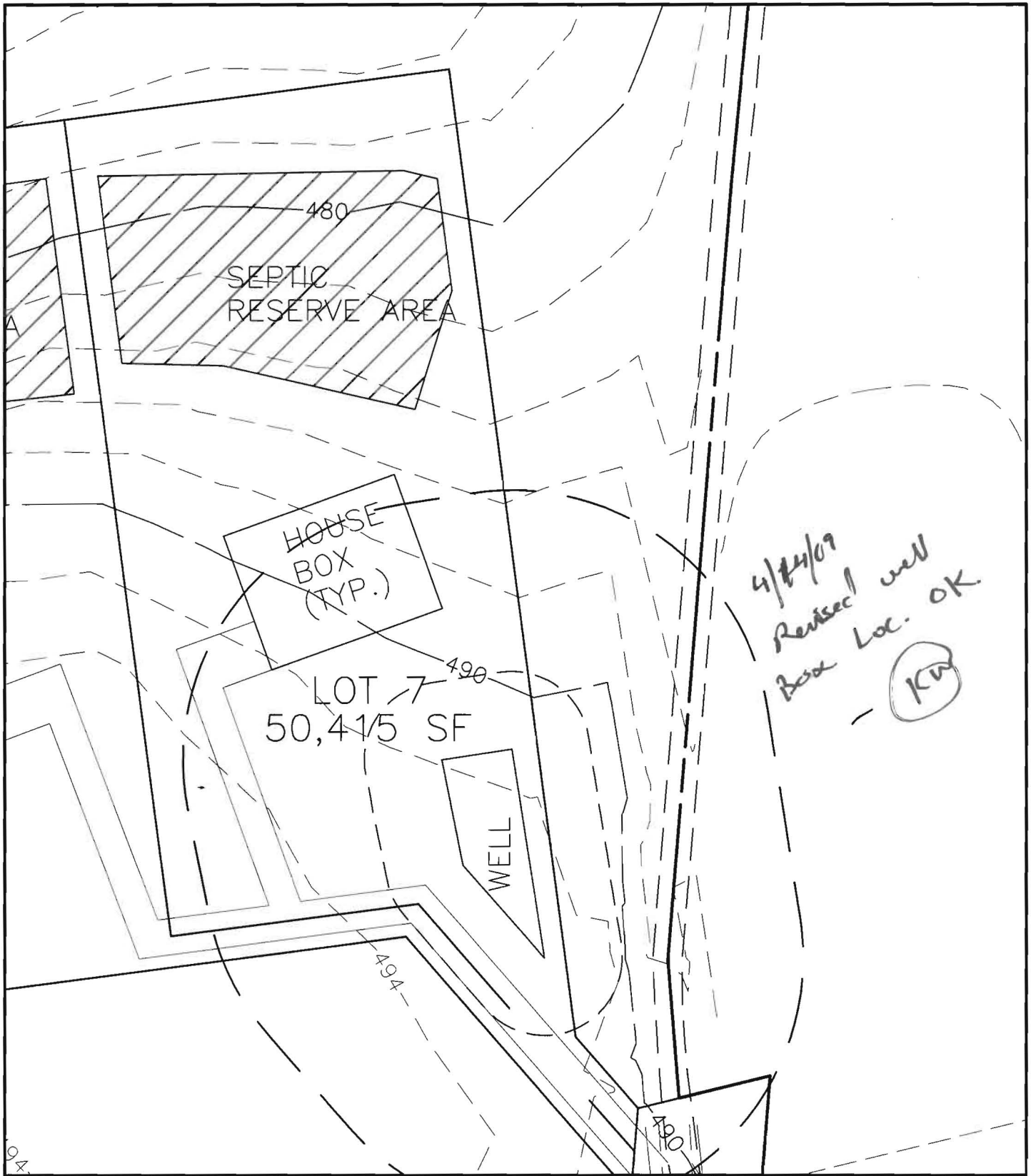
Carroll-Ziegler Prop. 2 Hru 7 + PP "L" 3841 Manor Lane
 Subdivision/Property Name Lot# Road Name

- The well site has been staked by Benchmark Engineering, Inc.
 (professional land surveyor or company employing professional land surveyors)
 on 2-1-09 (date) and does not require a site inspection.

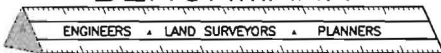
- The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05



BENCHMARK



ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043

PHONE: 410-465-6105

FAX: 410-465-6644

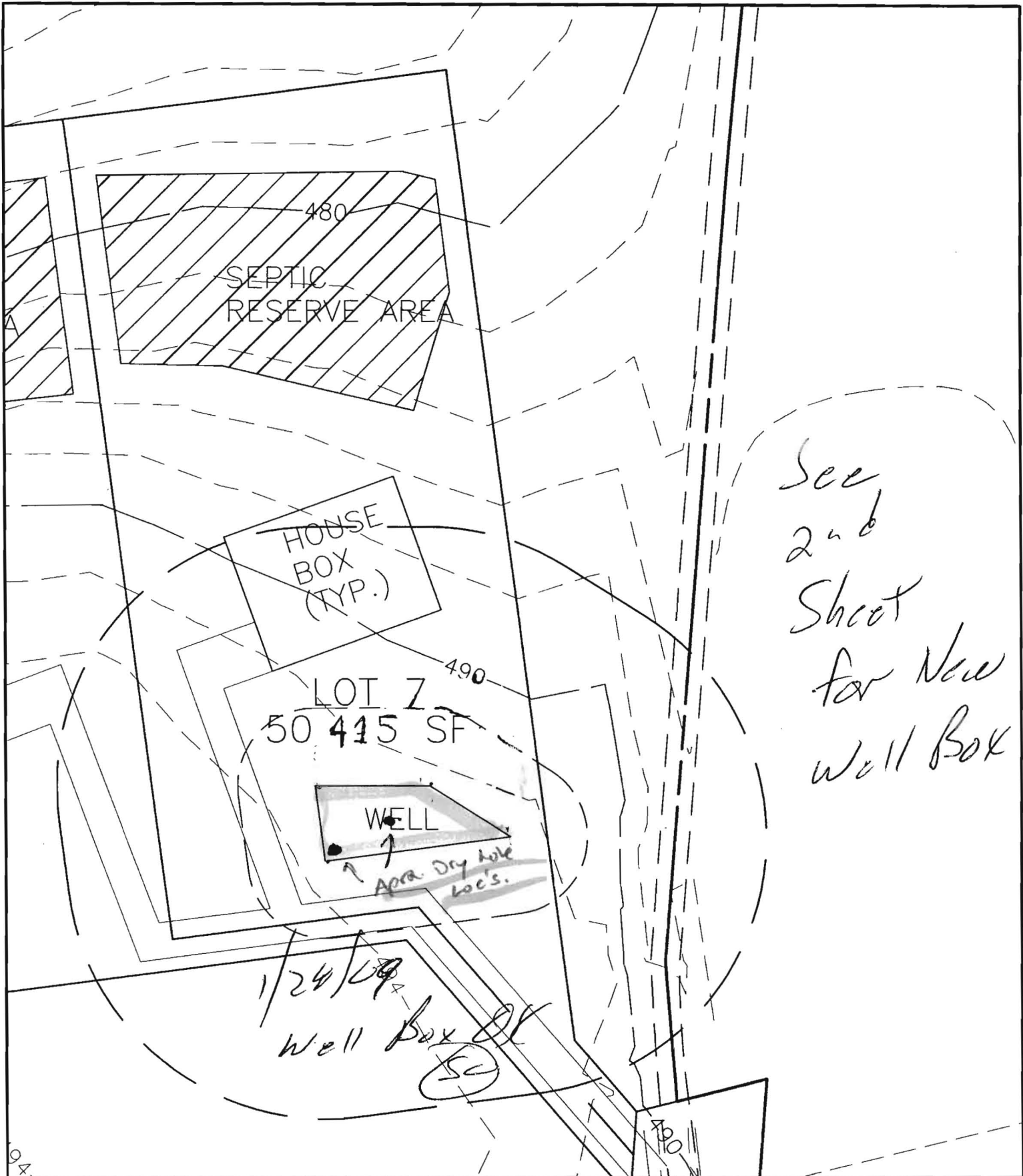
PA17081dwg17000S2.dwg, EXHIBIT LOT7, 4/14/2009 11:14:49 AM, jmc

WELL EXHIBIT
CARROLL-ZIEGLER PROPERTY

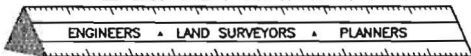
LOT 7 REVISED

THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 4/14/2009



BENCHMARK



ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043

PHONE: 410-465-6105

FAX: 410-465-6644

P:\1708\dwg\7000S2.dwg, EXHIBIT LOT7, 11/5/2008 9:50:29 AM,

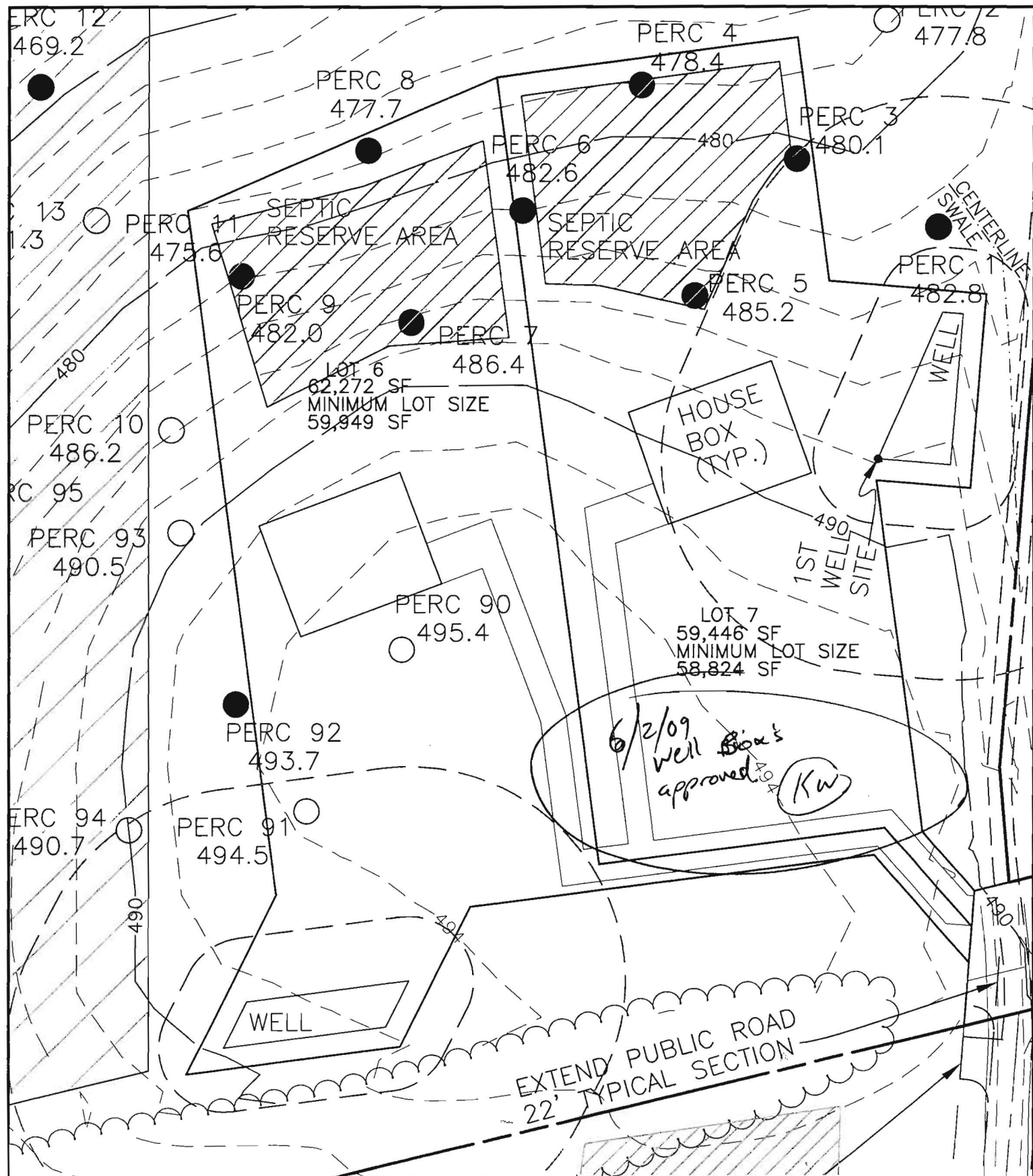
wo, \ICLIN\TRAL\kyocera C3-3030 ICL, 1.1

**WELL EXHIBIT
CARROLL-ZIEGLER PROPERTY**

LOT 7

THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 11/03/2008



BENCHMARK

ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043

PHONE: 410-465-6105

FAX: 410-465-6644

P:\1708\dwg\7000 lot 6 and 7.dwg, EXHIBIT LOT7, 6/1/2009 3:02:18 PM,

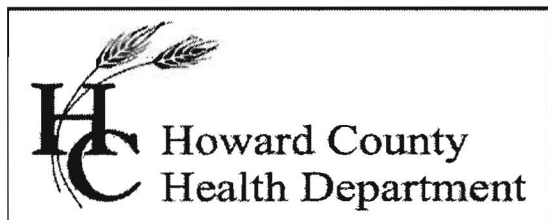
**WELL EXHIBIT
CARROLL-ZIEGLER PROPERTY**

LOTS 6 AND 7 REVISED

THIRD ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SCALE: 1" = 60' DATE: 6/01/2009



Bureau of Environmental Health

8930 Stanford Blvd, Columbia, MD 21045
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org

Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

TEMPORARY INTERIM CERTIFICATE OF POTABILITY
TEMPORARY DEVIATION FOR NITRATES

Expiration Date – April 30, 2014

April 15, 2014

Homeowner
11120 Dorsch Farm Road
Ellicott City, MD 21042

**RE: Carroll-Ziegler Lot 7
11120 Dorsch Farm Road
Building Permit: B13002945
Well Permit: HO-95-1738**

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **4/2/2014**. Final approval of the well line connection to the dwelling was granted on **3/4/2014**. The well construction was completed on **7/15/2009**. Water samples were collected on **4/8/2014**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

The untreated water sample collected on **4/8/2014** indicated a nitrate level of **12.0 mg/L**. **This exceeds the maximum contaminant limit of 10 mg/L set forth in COMAR 26.04.04.09.**

This is a **temporary deviation** to allow additional time for installation of a nitrate removal system and submission of water sample results indicating that the treated water meets COMAR requirements.

This Department will grant a **temporary deviation** to the Interim Certificate of Potability on condition that a nitrate removal system is installed and a water sample result for post-treatment nitrate level at the primary drinking tap is submitted to this Department **within 15 days**. Those results must indicate that the nitrate removal system is effectively maintaining a nitrate level of less than **10 mg/L**.

Furthermore, it will be necessary for you to comply with the following conditions:

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.

2. It is recommended that a Maryland certified water laboratory certified for nitrates analysis perform a yearly nitrate analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of the above condition. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.12F Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

This Temporary Interim Certificate of Potability will expire **15 days** from the date of issuance. **Failure to submit the required nitrate sample results and obtain an Interim Certificate of Potability before the expiration date will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a water sample appointment or contact a Maryland certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,



Jeff Williams
Program Manager
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File



TRACE LABORATORIES, INC
 5 North Park Drive
 Hunt Valley, MD 21030 USA
 Telephone: 410/584-9099 / Fax: 410/584-9117
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Carrigan Homes
 Attn: Owen Kelly
 9812 Caitlins Court
 Ellicott City, Maryland 21042

S/O Number: 92710

Report Date: April 11, 2014

Potability Testing

Property Sampled: 11120 Dorsch Farm Road, 21042
Sample Location: Garage Utility Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: 13002945
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** N/A **Lot#:** N/A

Date/Time Collected in Field: April 8, 2014 1:46 pm
Date/Time Received in Lab: April 8, 2014 3:41 pm

Well Tag #: Tag Not Visible
Well Condition: 2-Piece Cap, Satisfactory

*Nitrates
 not ok
 DB
 4-15-14*

Water Treatment/Conditioning: None

PARAMETER	METHOD	MCL/*SMCL	RESULT	COMMENT
Total Coliform	SM 9223B	Absent	Absent	Pass
<i>E. coli</i>	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500-NO3D	10 mg/L as N	12.0 mg/L as N	FAIL
Turbidity	EPA 180.1	10 NTU	1.6 NTU	Pass
pH (Field)	SM 4500-H ⁺ B	*6.5-8.5 Units	5.7 Units	***
Sand		Absent	Absent	Pass

The results in this report relate only to those items tested. If any additional information or clarification of this report is required, please contact us. This test report shall not be reproduced except in full without the written approval of Trace Laboratories Inc.

Katherine C. Higgs
 Manager – Drinking Water Testing

MCL: Maximum Contamination Level, an enforceable level established by the EPA
 *SMCL: Secondary Maximum Contamination Level, a level recommended by the EPA
 ***A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.



TRACE LABORATORIES, INC
 5 North Park Drive
 Hunt Valley, MD 21030 USA
 Telephone: 410/584-9099 / Fax: 410/584-9117
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

S/O Number: 92710

Carrigan Homes
 Attn: Owen Kelly
 9812 Caitlins Court
 Ellicott City, Maryland 21042

Report Date: April 11, 2014

Short-Term GAGB

Property Sampled: 11120 Dorsch Farm Road, 21042
Sample Location: Garage Utility Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: 13002945
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard

Subdivision: N/A

Lot#: N/A

Date/Time Collected in Field: April 8, 2014 1:46 pm

Date/Time Received in Lab: April 8, 2014 3:41 pm

Well Tag #:

Tag Not Visible

Well Condition:

2-Piece Cap, Satisfactory

*OK
DB
4-14-14*

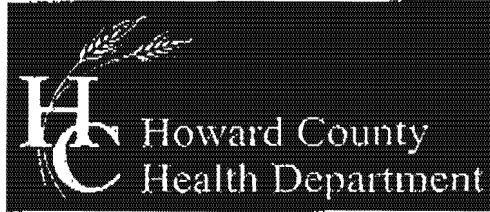
Water Treatment/Conditioning: None

PARAMETER	METHOD	MCL	RESULT	COMMENT
Gross Alpha (Short-Term)	EPA 900.0	15 pCi/L	3.5 ± 1.4 pCi/L	Pass [+]
Gross Beta (Short-Term)	EPA 900.0	50 pCi/L	3.9 ± 1.6 pCi/L	Pass [+]

[+] NOTE: The primary sources of gross alpha activity in water are Radium-224, Radium-226, and/or Uranium. Gross alpha levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department. Gross beta activity in water is primarily from Radium-228.

The results in this report relate only to those items tested. If any additional information or clarification of this report is required, please contact us. This test report shall not be reproduced except in full without the written approval of Trace Laboratories Inc.

Katherine C. Higgs
 Katherine C. Higgs
 Manager - Drinking Water Testing



Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

**REQUEST FOR TEMPORARY DEVIATION TO
NITRATE STANDARDS FOR CERTIFICATE OF POTABILITY**

DATE: 4/15/14 WELL PERMIT #: HO - _____ - _____

PROPERTY OWNER: EVA + STEPHEN D. COLLO

SUBDIVISION & LOT #: _____

PROPERTY ADDRESS: 1120 DORSCH FARM RD
ELLCOTT CITY, MD 21042

TESTIMONIAL: (Steps to be taken by the well owner or agent to bring the well into compliance with COMAR 26.04.04.09 (B) within fifteen (15) days)

installing reverse osmosis filter ASAP
test water for nitrate after
will not drink water till cleared

CONDITIONS:

- 1) Within fifteen (15) days, the well installed under permit # HO - _____ - _____ will be documented to have a nitrate level of 10 ppm or less at the primary drinking tap as a result of installation of a nitrate filtration system.
- 2) If the nitrate condition cannot be remediated to a level of 10 ppm or less via installation of a filtration system, then drilling a replacement well would likely be necessary. Issuance of a Final Certificate of Potability will be delayed until the issue is resolved.

I hereby request that a Fifteen-Day Temporary Deviation to COMAR 26.04.04.09 be granted for the well installed under permit # HO - _____ - _____. I am fully aware of the conditions under which this deviation will be granted, and of my responsibilities as the well owner which include advising any future buyer/tenant of the installation, condition and maintenance responsibilities of the nitrate removal device.

Prospective Owner's Original Signature(s) (Person(s) that intend to live in the dwelling)

[Signature] [Signature]

Prospective Owner's Day Time Phone Number(s)

443 812 2439