

B 1 2306

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

535997

please type

70 140-95-2219 79 fill in this form completely

Date Received (APA)

10 07 11

OWNER INFORMATION 12022

Chapel Rise Ltd
11795 Bragdon Wood
Clarksville Md 21029

B 3

LOCATION OF WELL

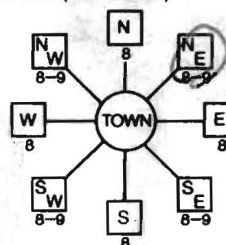
Howard
Chapel Rise
Clarksville
NEAREST TOWN

DRILLER INFORMATION

George F. Easterday
L. Franklin Easterday, Inc.
9265 Brown Church Rd., MT. Airy, Md. 21771

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Bragdon Wood
NEAR WHAT ROAD
ON WHICH SIDE OF ROAD
DISTANCE FROM ROAD
ENTER FT OR MI

B 2

WELL INFORMATION

APPROX. PUMPING RATE 5
AVERAGE DAILY QUANTITY NEEDED 500

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 A532542
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED
CO SIGNATURE EXP. DATE
NORTH GRID EAST GRID

APPROXIMATE DEPTH OF WELL 300 FEET
APPROXIMATE DIAMETER OF WELL 6 INCH

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)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL
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 DEEPEM AN EXISTING WELL

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

APPROX. PERMIT NUMBER G
PERMIT No. 140-95-2219

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
WRITE THE BOX NUMBER FROM THE MAP HERE
Sample collected @ field 12/6/11

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

N

SPECIAL CONDITIONS Radium Sample needed Clarksville

C1 6073

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)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY DATE Received MM 12 DD 20 YY 11

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL" H0-95-2219

OWNER CHAPEL Rise LTD STREET OR RFD BRADON WOOD TOWN CLARKSVILLE SUBDIVISION CHAPEL Rise SECTION LOT 4

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Top Soil, Brown shale, Brown mica, Gray mica opening, Gray mica, sand stone, Gray mica.

GROUTING RECORD form including: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM, BC), NO. OF BAGS (14), NO. OF POUNDS (1100), GALLONS OF WATER (87), DEPTH OF GROUT SEAL (38").

CASING RECORD form including: casing types insert appropriate code below (ST, CO, PL, OT), MAIN CASING TYPE (ST), Nominal diameter top (main) casing (6), Total depth of main casing (40).

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

SCREEN RECORD form including: screen type or open hole (ST, BR, HO, PL, OT), DEPTH (nearest ft.) (39, 400).

NUMBER OF UNSUCCESSFUL WELLS: 0, WELL HYDROFRACTURED (Y)

- 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.

DRILLERS LIC. NO. 1 M W D 040 DRILLERS SIGNATURE George F. Easterday

LIC. NO. 1 J S D 038 DRILLERS SIGNATURE Bruce Thompson

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

DEPTH (nearest ft.) table with rows 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

PUMPING TEST form including: HOURS PUMPED (3), PUMPING RATE (15), METHOD USED TO MEASURE PUMPING RATE (Bucket), WATER LEVEL (43, 128), TYPE OF PUMP USED (S).

PUMP INSTALLED form including: DRILLER INSTALLED PUMP (YES), 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 (31, 35), PUMP HORSE POWER (37, 41), PUMP COLUMN LENGTH (43, 47), CASING HEIGHT (49), LAND SURFACE (1), LOCATION OF WELL ON LOT.

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) 39.2329, 76.9211

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

ST/CO USE ONLY DATE Received MM 12 DD 20 YY 11  
DATE WELL COMPLETED MM 12 DD 11  
Depth of Well 22 400 26 (TO NEAREST FOOT) 1/25/12 04 KW  
PERMIT NO. FROM "PERMIT TO DRILL WELL" H.O.-95-2219

COUNTY NUMBER  
OWNER CHAPEL Rise LTD last name first name  
STREET OR RFD Bklogian WOOD TOWN CLARKSVILLE  
SUBDIVISION Chapel Rise SECTION LOT 4

**WELL LOG**  
Not required for driven wells

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

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Top Soil	0	2	
Brown S shale	2	10	
Brown Mica	10	28	
Gray Mica	28	130	✓
opening	130	131	✓
Gray Mica	131	150	
sand stone	150	220	
Gray Mica	220	400	

**GROUTING RECORD** yes  no   
WELL HAS BEEN GROUTED (Circle Appropriate Box) **Y** **N**  
TYPE OF GROUTING MATERIAL (Circle one)  
CEMENT **CM** BENTONITE CLAY **BC**  
NO. OF BAGS 45-46 14 NO. OF POUNDS 45-46 1400  
GALLONS OF WATER 84  
DEPTH OF GROUT SEAL (to nearest foot) 38"  
from 48 TOP 52 ft. to 54 BOTTOM 58 ft.  
(enter 0 if from surface)

**CASING RECORD**  
casing types insert appropriate code below  
**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)  
60 61 63 64 66 70  
6 40

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

**SCREEN RECORD**  
screen type or open hole insert appropriate code below  
**ST** STEEL **BR** BRASS **HO** OPEN HOLE  
**PL** PLASTIC **OT** OTHER

**C 3**  
**PUMPING TEST**  
HOURS PUMPED (nearest hour) 3  
PUMPING RATE (gal. per min.) 15  
METHOD USED TO MEASURE PUMPING RATE Bucket  
WATER LEVEL (distance from land surface) BEFORE PUMPING 43 ft. WHEN PUMPING 128 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

NUMBER OF UNSUCCESSFUL WELLS: 0  
WELL HYDROFRACTURED yes  no

**C 2**  
DEPTH (nearest ft.)  
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  
39 400  
DIA METER OF SCREEN (NEAREST INCH) 56 60  
from to

**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. 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 } LAND SURFACE **-** below } 1 (nearest foot)

CIRCLE APPROPRIATE LETTER  
**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, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 MW D 040  
DRILLERS SIGNATURE  
LIC. NO. 1 JS D 038  
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 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

**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)  
39.2329 ✓  
76.9211



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: EASTERDAY WELL & PUMP Telephone #: 301-831-5170  
 Address: 9265 BROWN CHURCH RD  
Mt AIRY, MD 21771  
301-831-5170

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

License # and name of individual responsible for the field installation:  
 Name (Print): Jerry A. Miller III License# WR0074

\*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: Micha Hart Telephone #: 410-935-8831  
 Subdivision: Chapel Rise Lot #: 4 Well Tag #: HO-95-2219  
 Site Address: 11560 Chapel Rise  
Clarksville, MD.

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Golds</u>	Make: <u>Martinson</u>	Two piece watertight cap: <input type="checkbox"/>
Model #: <u>106507</u>	Model#: <u>S-1DX</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>10</u> GPM	Depth: <u>3 1/2</u> (36" min)	Cap secured to casing: <u>Y</u>
Well Yield: <u>6</u> GPM	NSF/WSC approved: <input type="checkbox"/>	Conduit min 18" B.G.: <u>Y</u>

Depth of well encountered at time of pump installation: 400 (feet) Conduit secured to well cap: Y  
 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

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>PP</u>	PVC sleeve to undisturbed soil at wall penetration: <u>Yes</u>
PSI: <u>200</u> (160 psi min)	Length of sleeve (5' minimum from foundation): <u>5 FT.</u>
Depth of supply line: <u>3 1/2</u> (36" min)	Sleeve sealed properly: <u>Yes</u>

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.

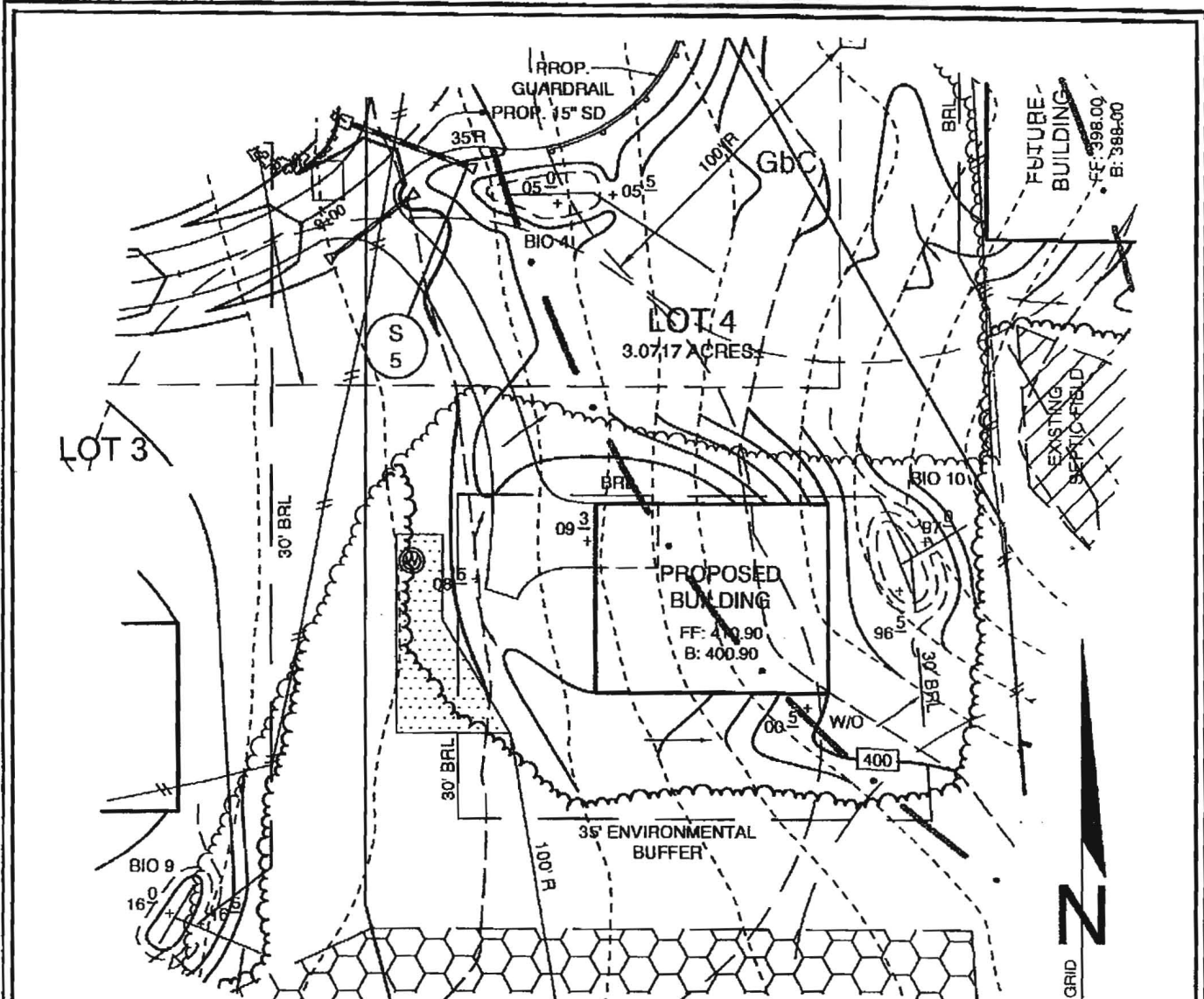
Signature of company representative responsible for installation: Jerry A. Miller III date: 8-8-14

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

Date Insp. Requested: 9/4/14 Date Insp. Approved: 9/4/14 Inspector: RR

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

\* Plan not to scale. \* See Signed P.C. will be OK



# Sill · Adcock & Associates · LLC

Engineers · Surveyors · Planners

3300 North Ridge Road, Suite 160  
 Ellicott City, Maryland 21043  
 Phone: 443.325.7682 Fax: 443.325.7685  
 Email: info@saaland.com

FOREST CONSERVATION EASEMENT 2

11/14/11  
 well box OK  
 staked by STA Adcock  
 (KA)



DESIGN BY:	PS
DRAWN BY:	PS
CHECKED BY:	PS
SCALE:	1"=50'
DATE:	OCT. 01, 2011
PROJECT #:	09-073
SHEET #:	1 OF 1

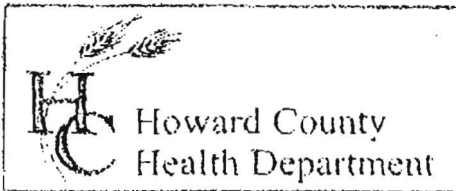
## WELL PERMIT PLAN

### CHAPEL RISE

LOT 4

TAX MAP 29 GRID 13  
 5TH ELECTION DISTRICT

PARCEL 26, 282 & 353  
 HOWARD COUNTY, MARYLAND



3525 H Ellicott Mills Drive, Ellicott City, MD 21043  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

Penny E. Borenstein, 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:

- The well site has been staked by Sill, Adcock & Assoc,  
(professional land surveyor or company employing professional land surveyors)  
on 9/30/11 (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 6/10/03

LOT 4 Chapel Rise  
Bragdon Wood



Howard County  
Health Department

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](http://www.hchealth.org)

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

February 14, 2014

Micah R. Hart  
2929 Chestnut Hill Drive  
Ellicott City, MD 21043

Owner/Applicant, 11560 Chapel Rise  
[micahrhart@yahoo.com](mailto:micahrhart@yahoo.com)

**RE: 11560 Chapel Rise; Chapel Rise subdivision, Lot 4  
Well tag: HO-95-2219**

Dear Mr. Hart,

A sample was collected during yield test on December 6, 2011 and submitted to the Department of Health and Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e., Radionuclides) that may exist in your area of development within the County. Your organization may have received a letter of notification (October 17, 2007) advising you of the following results at the subject property.

Results from the screening revealed a **Gross Alpha** of  $38.9 \pm 4.4$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $30.1 \pm 2.9$  pCi/L. The **Gross Alpha** result exceeded its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its target value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

As the **Gross Alpha** finding exceeded its **MCL**, additional testing for **Gross Alpha, Gross Beta (short-term and long-term), and Radium** will be necessary prior to issuance of an Interim Certificate of Potability (ICOP), in essence prior to Use and Occupancy. You may choose to test either (A) a raw water sample, or (B) a post-treatment sample. The analysis of each water sample may require up to a month.

Should you choose to install a treatment system, an agreement for installation and maintenance must be signed by you (as owner) and the Director, Bureau of Environmental Health, and then recorded at Howard County Land Records. The agreement is attached with this letter. This agreement must be recorded prior to issuance of the ICOP.

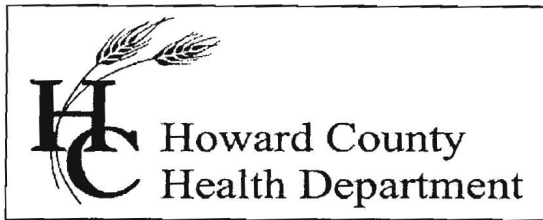
Please call this office at 410-313-1771 if you have any further questions.

Sincerely,

Robert Bricker, REHS/R.S., L.E.H.S.  
Environmental Sanitarian II  
Well and Septic Program  
410-313-2691

Enclosure: 1

Copy: Well and Septic property file



Bureau of Environmental Health

8930 Stanford Blvd., Columbia, MD 21046-2147

Main: 410-313-1774 | Fax: 410-313-2648

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

[www.hchealth.org](http://www.hchealth.org)

Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)

Twitter: HowardCoHealthDep

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

**INTERIM CERTIFICATE OF POTABILITY**

**Expiration Date – JULY 13, 2015**

January 13, 2015

Micah Hart  
11560 Chapel Rise  
Clarsville, MD 21029

**RE: Chapel Rise, Lot 4  
11560 Chapel Rise  
Building Permit: B13004386  
Well Permit: HO-95-2219**

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 **11/12/2014**. Final approval of the well line connection to the dwelling was granted on **9/4/2014**. The well construction was completed on **12/6/2011**. Water samples were collected on **9/23/2014 and 12/17/2014**.

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.

Gross Alpha and Beta samples were also collected on **12/6/2011**. Results showed a Gross Alpha level of **38.9 ± 4.4 pCi/L** and Gross Beta level of **30.1 ± 2.9 pCi/L**. **These exceed the maximum contaminant levels (MCL) of 15 pCi/L and/or 50 pCi/L, respectively.**

A radionuclide removal device (water softener) was installed, however, only a pre-treatment water sample was collected on **11/21/2014**. The analyses of the raw water sample collected at the outside hose bib on **11/21/2014** indicated the **sum of Radium 226 and Radium 228 as <1.1 pCi/L** which is below the maximum contaminant level (MCL) of **5 pCi/L**. At the time of testing and with respect to these parameters, the well water is safe for all uses.

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-2219. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

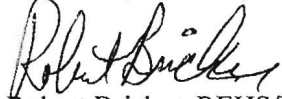
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of

Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability 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 final water sample appointment or contact a 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:

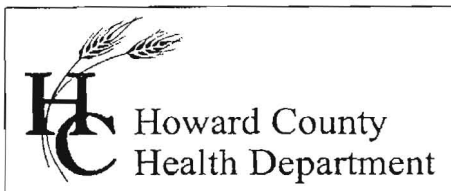
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,



Robert Bricker, REHS/R.S., L.E.H.S.  
Environmental Sanitarian  
Well & Septic Program

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



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

February 6, 2012

**Chapel Rise Ltd.**  
**11795 Bragdon Wood**  
**Clarksville, Maryland 21029**

**RE: Chapel Rise Lot 4**  
**Bragdon Wood Drive**  
**Well Tag: HO - 95 - 2219**

To Whom It May Concern:

A sample was collected during a yield test on December 6, 2011 and submitted to the Department of Health & Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of  $38.9 \pm 4.4$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $30.1 \pm 2.9$  pCi/L. The **Gross Alpha** result was above its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply **does not** meet EPA regulatory standards. Additional testing for **these parameters, plus Radium 226 and Radium 228** will be required to secure the future Use & Occupancy. Given the elevated finding for both **Gross Alpha** and somewhat higher than typical **Gross Beta**, the installation of a water softener system and / or a reverse osmosis system will likely be necessary. **Post short and long term Gross Alpha and Beta, plus a post Radium 226 / 228** will be needed to properly evaluate the effectiveness of the installed treatment. Given that it typically takes up to one month to perform and receive back the **Radium** analyses, plan accordingly. However, please note that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions.

Sincerely,



Bert Nixon, Director  
Bureau of Environmental Health

Enclosure

cc: Barry Glotfelty, MDE Water Mgmt.

✓ Well & Septic property file



**CATOCTIN LABS, INC.**  
 8609 APPLES CHURCH ROAD  
 THURMONT, MARYLAND 21788-1312  
 (301) 663-6323  
 FAX (301) 271-9060

**FIELD RECORD**

Customer: Micah Hart/Easterday Well and Pump  
 11560 Chapel Rise  
 Clarksville, MD 21029

Date: September 23, 2014  
 Time: 09:00  
 Type: 0

County: Howard  
 Source: Pump System

Residual Cl: 0.00 ✓

Iced: Yes ✓

Well No:

pH: 6.8 ✓

EPA acceptable range for pH is 6.5 - 8.5

Bottle No: 2MPN

Reason For Sample: N/A

Treatment: Raw

Collector: Jerry Miller

State Certification No: 9669JM

NOTE: Catoctin Labs, Inc. will not be responsible for any sample result if the sample was collected or transported by non-affiliated personnel.

**LABORATORY RECORD**

Received: 13:35 9/23/2014

Examined: 13:35 09/23, 09/24

PARAMETER	METHOD	U.S. EPA Drinking Water Recommendations	SAMPLE RESULTS
MPN Total Coliform	SM 9223 (E)	<1MPN/100ml	<1 MPN/100ml ✓
MPN E. coli	SM 9223 (E)	<1MPN/100ml	<1 MPN/100ml ✓
Nitrate	EPA 353.2	10.0 mg/L Maximum	<0.1 mg/L ✓

Bacteriological analysis of this sample, on this specified date, indicates the water is for human consumption, according to APHA/EPA Standards.

**SAFE**

Analyst [Signature]

Date: September 24, 2014

Maryland State Certification Number 135

EPA Primary Secondary Radon Listing 2070100  
 EPA Individual Radon Listing 156520T

'OK' ✓ 1/13/2015

Send Report To:

Bert Nixon

Howard County Health Department  
Bureau of Environmental Health  
7178 Columbia Gateway Drive  
Columbia, Maryland 21046

State of Maryland  
DHMH - Laboratories Administration  
Division of Environmental Chemistry  
**RADIATION LABORATORY**

201 W. Preston Street, Baltimore, Maryland 21201  
John M. DeBoy, Dr. P. H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HO 2219 No. B: — Field Blank Bottle No. 1: HOFB120611 No B: —

Plant/Site Name: Chapel Rise - Lot (4) County: Howard

Sample Source: Bragden Wood Dr. Location: HO-25-2219  
(well no, lab sink, sample tap, etc.)

County:  1  3 Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: K. Wolf

Telephone No.: 410-313-2645

Date Collected: 12/6/11

Time Collected: \_\_\_\_\_ a.m. 12:00 p.m.

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Submitters Code:

Federal Project:

Field Data: \_\_\_\_\_  
pH \_\_\_\_\_ Chlorine \_\_\_\_\_

Remarks: Sample pH preserved to <2.0 / collected during field

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000				
✓	Gross Beta	4100				
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: \_\_\_/\_\_\_/\_\_\_

Supervisor: \_\_\_\_\_

•Tel. No.: (410) 767 - 5537 •Fax No.: (410) 333- 5373

# FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

## REPORT OF ANALYSIS

Laboratory ID #: 98302 Account #: 20000  
Reference: Micah Hart Company: CASH ACCOUNT  
Location: 11560 Chapel Rise Requested By: Micah Hart  
Clarksville, MD 21029 Source: Well Water  
Date/ Time Collected: 12/17/2014 0930 Site: Pressure Tank  
Date/Time Rec'd: 12/17/2014 1200 Treatment: Softener\*\*  
Chlorine ppm: Free: ND Total: ND pH: 6.8  
Collected By: J. Yeager 6176JY Well #: HO-95-2219

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	1.33	NTU	<10	SM18 2130B	12/17/2014 / 1245 / CCH
Sand	NS	mg/L	5	Visual/Gravimetric	12/17/2014 / 1245 / CCH

OK  
reb 1/13/15

### NOTES

- 1 \*\* Sample collected prior to Softener
- 2 NS = None Seen (NS indicates less than 5 mg/L)
- 3 NTU = Nephelometric Turbidity Units
- 4 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 5 ND:None Detected
- 6 Visual well check: Sealed, vented cap
- 7 pH tested in lab, chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : B13004386

Date Reported: 12/17/2014

## REPORT OF ANALYSIS

Laboratory ID #: 97935	Account #: 20000
Reference: Micah Hart	Company: CASH ACCOUNT
Location: 11560 Chapel Rise Clarksville, MD 21029	Requested By: Micah Hart
Date/Time Collected: 11/21/2014 0940	Source: Well Water
Date/Time Rec'd: 11/21/2014 1350	Site: Outside Hose Bib - Front Left → Post or Pre?
Chlorine ppm: Free: ND Total: ND	Treatment: <u>Softener</u>
Collected By: B. Dutterer 4717BD	pH: 7.0
	Well #: HO-95-2219

Radium-226	0.3	pCi/L	****	903.1	12/4/2014 / 1305 / MJN
Radium-228	<0.8	pCi/L	****	Ra-05	12/3/2014 / 1344 / SN

<1.1 pCi/L  
 OK PCB, 1/13/15  
 Post short / Long term cross α, β  
 +  
 radium 226 - 228  
 - KMW

**NOTES**

- 1 \*\*\*\*Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 pCi/L = picocuries per liter
- 3 Radium 226 Detection Limit: 0.2 pCi/L; Radium 228 Detection Limit: 0.8 pCi/L
- 4 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 5 Sub-contracted to Reference Lab #278
- 6 ND:None Detected
- 7 Visual well check: Sealed, vented cap
- 8 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy  
 Building Permit # : B13004386

Date Reported: 12/5/2014