

C165153

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.

1236
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY
DATE Received
MMDDYY
013120

DATE WELL COMPLETED
MMDDYY
1-22-20

Depth of Well
2220026
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
H0-18-0161

OWNER
Tall Brothers

WELL SITE ADDRESS
Pudding Lane

SUBDIVISION
Kings Forest

SECTION

LOT
133

TOWN
Ellicott City

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 | |
| Clay | 0 | 12 | |
| Soft brown | 12 | 42 | |
| Grey limestone | 42 | 80 | |
| Fracture | 80 | 81 | ✓ |
| Grey limestone | 81 | 132 | |
| Fracture | 132 | 133 | ✓ |
| Grey limestone | 133 | 200 | |

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT ☒ CM BENTONITE CLAY ☒ BC

NO. OF BAGS 45 46 9 NO. OF POUNDS 45 46 216

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

from 48 0 TOP 52 ft. to 54 60 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 ☒ ST

Nominal diameter
top (main) casing
(nearest inch)!

60 61 06 63 64 66 63 70

Total depth
of main casing
(nearest foot)

OTHER CASING (if used)

diameter
inch

depth (feet)
from to

SCREEN RECORD

screen type
or open hole

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

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED ☒ Y ☒ N

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

C2

DEPTH (nearest ft.)

1220026

63 200

8 9 11 15 17 21

23 24 26 30 32 36

38 39 41 45 47 51

SLOT SIZE 1 2 3

DIAMETER
OF SCREEN (NEAREST
INCH)

56 60

from to

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 5 D 224

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

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

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) 3

PUMPING RATE (gal. per min.) 12

METHOD USED TO
MEASURE PUMPING RATE 192

WATER LEVEL (distance from land surface)

BEFORE PUMPING 50 ft.

WHEN PUMPING 84 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) 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 36

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH
(nearest ft.) 43 47

CASING HEIGHT (circle appropriate box
and enter casing height)

+ above } LAND SURFACE 3 (nearest foot)
- below }

LATITUDE 39.255897

LONGITUDE 76.881256

(DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of
the Maryland Code personal info. requested on
this form is used in processing this form pursuant
to COMAR 26.04.04. Failure to provide the info.
may result in this form not being processed. You
have the right to inspect, amend, or correct this
form. The Maryland Department of the
Environment is subject to the Maryland Public
Information Act. This form may be made
available on the Internet via MDE's website and is
subject to inspection or copying, in whole or in
part, by the public and other governmental
agencies, if not protected by federal or state law.

FOGLE'S WELL DRILLING, LLC
P.O. Box 202
Woodbine, Md 21797
443-609-4195
FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO-18-0161

Location of Property: Pudding Lane Ellicott City, Md

Subdivision: Kings Forest **Lot#:** 33

Well Driller/Tech: Fogles Andrew Houseman MSD224 Owner/Buyer: Toll Brothers

Depth of Well: 200' Casing: 63' of 6" Steel Casing Pump Depth: 180'

Distance of measuring point (M.P.) above ground: 1'

Static water level (S.W.L.) below M.P.: 50'

High rate pumping –reservoir Drawdown

Time pump started: 8:45 **Pumping rate:** 15

Total time 60 Mins to reach pumping water level 84 ft. below M.P.

Recovery pump test data – observations to be recorded every 15 minutes

[illegible]



Bureau of Environmental Health
8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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

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: Fogle's Well Pump + Water Treatment, LLC Telephone #: 410-795-1535
Address: P.O. Box 63
Woodbine, Maryland 21797

Must circle one: Licensed Plumber / Licensed Well Driller / Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): Dave C. Fogle License# MSD226

***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: Toll Brothers Telephone #: _____
Subdivision: Kingsley Woods Lot #: 33 Well Tag #: HO - 18 - 0161
Site Address: 10503 Ravenna Lane
Ellicott City, MD 21042

Submersible Pump Data

Make: Gundfos
Model #: ISSA607-180
Pump Capacity: 15
Well Yield: 12

Pitless Adapter

Make: Campbell
Model#: N/A
GPM Depth: 36" (36" min)
GPM NSF/WSC approved: yes

Well Cap and Electric Conduit

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

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

Must circle one: Torque arrestors / Cable guards / Other acceptable method used

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

Piping to house

Type: 1" poly pipe
PSI: 200 psi (160 psi min)
Depth of supply line: 36" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: yes
Length of sleeve (5' minimum from foundation): 6'
Sleeve sealed properly: yes

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: [Signature]

Date: 12/8/2022

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

Date Insp. Requested: 12/7/22 Date Insp. Approved: 12/8/22 Inspector: SP
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 ✓

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – SEPTEMBER 27, 2023

March 27, 2023

Homeowner
10513 Pudding Lane
Ellicott City, MD 21042

**RE: Kingsley Woods, Lot 33
10513 Pudding Lane
Building Permit: B22000805
Well Permit: HO-18-0161**

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 **3/3/2023**. Final approval of the well line connection to the dwelling was granted on **12/8/2022**. The well construction was completed on **2/20/2020**. Water samples were collected on **2/27/2023**.

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 **1/22/2020**. Results showed a Gross Alpha level of **6.0 ± 1.8 pCi/L** and **Gross Beta** level of **8.1 ± 2.0 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). 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-18-0161. 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.**



Bureau of Environmental Health
8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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

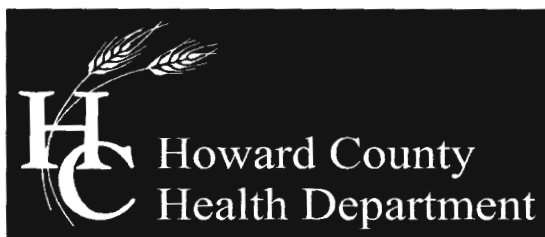
Please contact (410) 313-1773 to schedule a final water sample appointment or contact a certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website: <http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

In closing, please refer to our "Homeowner Fact Sheet" for understanding your onsite sewage disposal system. You will also find a link to Maryland Department of the Environment website which elaborates in further detail operation and maintenance of your Septic System.

Approving Authority,

Kevin M Wolf, L.E.H.S., REHS/R.S., Supervisor
Groundwater Management Section
Well & Septic Program

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



Bureau of Environmental Health

8930 Stanford Blvd, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org

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

Sodium, Chloride and Total Dissolved Solids water sampling results

February 17, 2021

Toll Brothers
7164 Columbia Gateway Dr, Suite 230
Columbia, MD 21046

Re: Kings Forest Lot 33
Pudding Ln
Well Permit: HO-18-0161

Dear Toll Brothers,

The Health Department received results from the testing for sodium, chloride, and total dissolved solids (TDS) from your well water. These samples were collected directly from the raw well water when your well was drilled.

Sodium from your well measured 6.45 mg/L. There is no maximum contaminant level for sodium, however elevated sodium levels in drinking water could affect individuals on low-salt diets. If anyone in your household is on a low-salt diet, you may want to discuss these results with your physician.

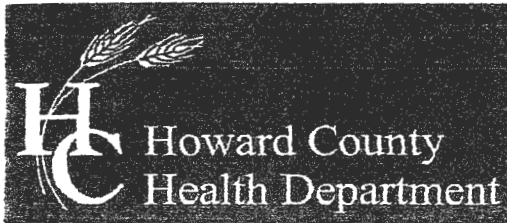
Chloride and TDS are both considered secondary contaminants, meaning high concentrations can affect taste, color, odor, or corrosive properties of water but present no risk to health. The secondary maximum contaminant level for chloride is 250 mg/L; **chloride from your well measured <10 mg/L.** The secondary maximum contaminant level for TDS is 500 mg/L; **TDS from your well measured 121 mg/L.**

Feel free to contact me at the number or email below with any questions regarding the results of water sampling.

Respectfully,

Susan Thomas
Environmental Health Specialist
Howard County Health Department
Well and Septic Program
410-313-6287
sathomas@howardcountymd.gov

✓Cc: File



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

Dr. Maura J. Rossman, M.D., 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:

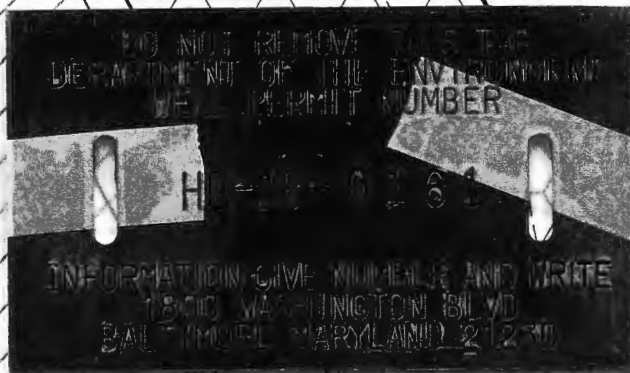
Kings Forest #18 thru 35 Pudding Lane
Subdivision/Property Name Lot # Road Name

☒ The well site has been staked by Benchmark
(professional land surveyor or company employing professional land surveyors)
on Oct 22, 2019 (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.

King's Forest
 Approved 1/14/20 (SY)
 Staked by Benchmark



BENCHMARK

ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE & SUITE 315 • ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-8105 (F) 410-465-8844

WWW.BEI-CIVILENGINEERING.COM

KINGS FOREST
WELL EXHIBIT

LOT 33

DATE: OCTOBER, 2019
 SCALE: 1" = 50'

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

March 23, 2020

Toll Brothers
7164 Columbia Gateway Drive
Columbia, Maryland 21045

RE: Kings Forest Lot 33
Pudding Lane
Well Tag: HO – 18 – 0161

To Who it May Concern:

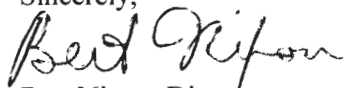
A sample was collected during a yield test on January 22, 2020 and submitted to the Maryland Department of Health Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle 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 6.0 ± 1.8 picocuries/liter (pCi/L), while the **Gross Beta** level was 8.1 ± 2.0 pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of **15 pCi/L**, while the **Gross Beta** level was below its targeted standard 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 well water supply is **within** EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. Please **note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be needed 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: Property file
Theresa Miller, Fogles

SEND REPORT TO: Bert Nixon

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Sciences
RADIATION LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

Lab No.

Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, Maryland 21045

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Kings Forest Lot 33

County: Howard

Sample Source: Kings Forest Lot 33

Location: 40-18-0161
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A 40S0161RA
Bottle B _____

Radon-222 Field Blank Bottle A _____
Bottle B _____

County 13

Plant No.

CHECK (one per Box)

Type
Drinking Water ☒
Landfill ☐
Stream ☐
Other ☐

Service
Community ☐
Non-Community ☐
Private ☒
Other ☐

Point of Collection
Source (Raw) ☒
Distribution (treated) ☐
MCL ☐

Testing
Emergency ☐
Routine ☒
Recheck ☐
Special ☐

Submitters Code: 4 F

Federal Project: ☐

Collector: Susan Thomas

Telephone No.: 410-313-6287

Date Collected: 1/22/20

Time Collected: _____ a.m. 12:10 p.m.

Field pH: 6.5

Field Chlorine: Negative

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☐ No ☒

Remarks: collected at yield of 40-18-0161

| <input checked="" type="checkbox"/> | TEST | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|-------------------------------------|----------------------|----------|---------|------------|-----------------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> | Gross Alpha | 4000 | 1544 | ED1000 | 6.0 ± 1.8 | 1/23/2020 | K11 | 1/27/2020 |
| <input checked="" type="checkbox"/> | Gross Beta | 4100 | 1544 | ED1000 | 8.1 ± 2.0 | 1/23/2020 | K11 | 1/27/2020 |
| <input type="checkbox"/> | Radium-226 | 4020 | | | | | | |
| <input type="checkbox"/> | Radium-228 | 4030 | | | | | | |
| <input type="checkbox"/> | Total Uranium | 4006 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle A) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle B) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank A | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank B | 4004 | | | | | | |
| <input type="checkbox"/> | Tritium | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |

Date Received: 1/23/2020

Received By: R. Holmes

Data Release Signature: [Signature]

Date: 1/30/20

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|--------------------------|--------------------------|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sample pH <2.0? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Received within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

SEND REPORT TO: Bert Niles

Howard County Health Department
Bureau of Environmental Health
 8930 Stanford Blvd.
 Columbia, Maryland 21045

State of Maryland
 DHMH - Laboratories Administration
 Division of Environmental Sciences
RADIATION LABORATORY
 1770 Ashland Avenue
 Baltimore, Maryland 21205

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: King's Forest Lot 23

County: Howard

Sample Source: King's Forest Lot 33

Location: Field Blank
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____
 Bottle B _____

Radon-222 Field Blank
 Bottle A H08TFB33
 Bottle B _____

County 113

Plant No.

CHECK (one per Box)

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

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

| Point of Collection | |
|------------------------|-------------------------------------|
| Source (Raw) | <input checked="" type="checkbox"/> |
| Distribution (treated) | <input type="checkbox"/> |
| MCL | <input type="checkbox"/> |

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

Submitters Code: 4 F

Federal Project: ☐

Collector: Susan Thomas

Telephone No.: 410-313-6287

Date Collected: 1/22/20

Time Collected: 9:38 a.m. _____ p.m.

Field pH: 5.5

Field Chlorine: negative

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☐ No ☒

Remarks: _____

| <input checked="" type="checkbox"/> | TEST | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|-------------------------------------|----------------------|----------|---------|------------|-----------------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> | Gross Alpha | 4000 | 154 | 4000 | 42.0 | 1/22/20 | KH | 1/27/2020 |
| <input checked="" type="checkbox"/> | Gross Beta | 4100 | 154 | 4100 | 44.0 | 1/22/20 | KH | 1/27/2020 |
| <input type="checkbox"/> | Radium-226 | 4020 | | | | | | |
| <input type="checkbox"/> | Radium-228 | 4030 | | | | | | |
| <input type="checkbox"/> | Total Uranium | 4006 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle A) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle B) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank A | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank B | 4004 | | | | | | |
| <input type="checkbox"/> | Tritium | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |

Date Received: 1/23/2020

Received By: R. Holmes

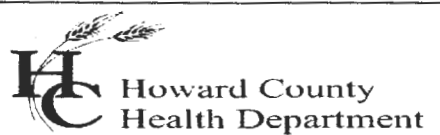
Data Release Signature: [Signature]

Date: 1/30/20

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|--------------------------|--------------------------|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sample pH <2.0? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Received within holding time? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

Invoice



Bureau of Environmental Health
Attn: Bert Nixon, Director

DATE: FEBRUARY 25, 2020
DATES OF SERVICE: JANUARY 21 AND 22, 2020
INVOICE #: 2020-003

8930 Stanford Boulevard, Columbia, MD 21045
Phone 410-313-2640 Fax 410-313-2648
www.hchealth.org

BILL TO Toll Brothers
7164 Columbia Gateway Drive
Columbia, Maryland 21046

COMMENTS Payment due upon receipt. Letter
and results will be released upon
receipt of payment.

| DATE | DESCRIPTION | BALANCE | AMOUNT |
|-----------|--|---------|------------|
| 1/22/2020 | Gross Alpha/Beta testing performed for Kings Forest Lot 33 HO - 18 - 0161 | | \$45.00 |
| 1/21/2020 | Gross Alpha/Beta testing performed for Kings Forest Lots 34 and 35 HO - 18 - 0162 and HO - 18 - 0147 | | \$90.00 |
| | | | AMOUNT DUE |
| | | | \$135.00 |

Please detach and return with payment.

| REMITTANCE | |
|------------------|------------------------------|
| Invoice # | 2020-003 |
| Site Information | Kings Forest Lot 33, 34 & 35 |
| Amount Due | \$135.00 |

RECEIVED 3/13/20
67345

Make Checks Payable to: **Director of Finance** Mail Payments to: **Bureau of Env. Health**

Send Report To: Bert Nixon

State of Maryland
DHMH - Laboratories Administration

Division of Environmental Sciences

TRACE METALS LABORATORY

1770 Ashland Avenue
Baltimore, Maryland 21205

Howard County Health Department
Bureau of Environmental Health
130 Stanford Blvd.
Columbia, Maryland 21045

Lab No. Date Received



E20002461001

Received: 01/23/2020

Metals

HOST016

LABORATORY ANALYSIS REQUEST

Do not write above this line

Please Print

Sample ID No: HOST0161NA Site Name: King's Forest, Lot 33 County: Howard

Sample Source: King's Forest, Lot 33, HO-18-0161 Collector: Susan Thomas
Street Town or City Name

Date Collected: 1/22/2020 Time Collected: 12:10 a.m. / (p.m.) Phone #: 410-313-6207
pH 2 15-01-23-20

Sample Preserved By: ☐ Field ☐ ESRL ☐ WMRL ☐ Central Lab

Preservative Used: ☒ HNO₃ 2 mL pH: 6.5

Sample Type: ☒ Drinking Water ☐ Landfill ☒ Source (Raw Water) ☐ Liquid
Data Category ☐ Community ☐ Stream ☐ Distribution (Treated) ☐ Solid
Code ☐ ☐ Non-Community ☐ Sediment ☐ Other _____
☒ Private

Specify Program: ☐ SDWA ☐ NPDES ☐ CWA ☐ RCRA ☐ Consumer Products ☐ Other _____

Type of Sample Preparation: ☒ Total Metals ☐ Total Metals TCLP ☐ Dissolved Metals
(field preparation required)

Remarks: collected at yield of HO-18-0161

| ✓ | Element | Lab Use | ✓ | Element | Lab Use | ✓ | Element | Lab Use |
|---|----------------|------------|---|-----------------|---------|---|--------------|---------|
| | Antimony (Sb) | | | Aluminum (Al) | | | Uranium (U) | |
| | Arsenic (As) | | | Calcium (Ca) | | | Vanadium (V) | |
| | Barium (Ba) | | | Cobalt (Co) | | | Zinc (Zn) | |
| | Beryllium (Be) | | | Copper (Cu) | | | | |
| | Cadmium (Cd) | | | Iron (Fe) | | | | |
| | Chromium (Cr) | | | Lead (Pb) | | | | |
| | Mercury (Hg) | | | Magnesium (Mg) | | | | |
| | Nickel (Ni) | | | Manganese (Mn) | | | | |
| | Selenium (Se) | | | Molybdenum (Mo) | | | | |
| ✓ | Sodium (Na) | <u>14u</u> | | Potassium (K) | | | | |
| | Thallium (Tl) | | | Silver (Ag) | | | | |

Lab Supervisor: _____

Date Reported: ____/____/____

•Phone: (443) 681 - 4596

•Fax: (443) 681 - 4507

DHMH 4432 (05/17)

SUBMITTER'S COPY



State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
TRACE METALS LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project No: E20002461 Date Coll.: 01/22/2020 Date Received: 01/23/2020 Submitted By: Susan Thomas

Field ID: HOST0161NA
Lab No.: E20002461001

| <u>Method</u> | <u>Element</u> | <u>Result</u> | <u>Units</u> | <u>Date Analyzed</u> |
|---------------|----------------|---------------|--------------|----------------------|
| EPA 200.7 | Sodium | 6.45 | ppm | 02/04/2020 |

Comments:

Approved by:

Wendy L. Thomas

Approval date: 02/10/2020

**The following methods are included in our A2LA Scope of Accreditation: EPA 200.7, EPA 200.8, EPA 245.1. Samples are tested as received.

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (410) 767-6944 and arrange for return or destruction.

Send Report To: Bert Nixon

**Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.**

State of Maryland
MDH-Laboratories Administration
Division of Environmental Sciences
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205
WATER ANALYSIS



F20002458001

Received: 01/23/2020

Inorganic

HOST0161CLT

Do not write above this line.

SAMPLE ID

Bottle Number H050161CLTDS Name King's Forest, Lot 33 County Howard County Code

| | |
|---|---|
| 1 | 3 |
|---|---|

Address Kina's Forest, Lot 33 Data Category 4F
Code

Collected: Date 1/22/20 Time 12:10 pm Collector & Phone Susan Thomas 410-313-6287 Submitter Code

| | |
|--|--|
| | |
|--|--|

CHECK (one per box)

| | |
|----------------|--|
| Drinking Water | |
| Landfill | |
| Stream | |
| Other | |

Community
Non-community
Private
Other

| | |
|------------------------|--------|
| Source (raw water) | 0.0000 |
| Distribution (treated) | 0.0000 |
| MCL | 0.0000 |

| | |
|-----------|--|
| Emergency | |
| Routine | |
| Recheck | |
| Special | |

Federal
Project

FIELD

| | | | | | | |
|-----------|--|------------------|--|--------------------|------|--------------|
| Plant No. | | Sampling Station | | Preservation: Iced | Acid | Type of Acid |
|-----------|--|------------------|--|--------------------|------|--------------|

pH

| | |
|---|---|
| 6 | 5 |
|---|---|

 Chlorine: Free

| | |
|---|---|
| 0 | 0 |
|---|---|

 Total

| | |
|---|---|
| 0 | 0 |
|---|---|

 Specific Conductance

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

Notes to Lab/Remarks: collected at field of HO-18-0161

| CHECK TESTS | TESTS | Error Code | RESULTS |
|----------------|--------------------------|---------------|---------|
| | Alkalinity (Total) | | |
| O | Ammonia - N | | |
| ✓ | Chloride | | |
| | Conductance*, Spec. | | |
| ✓ | Dissolved Solids (Total) | | |
| | Hardness | | |
| | Fluoride | | |
| | Nitrite, N | | |
| | Nitrate + Nitrite, N | | |
| | Sulfate | | |
| + | Total Solids | | |
| | Turbidity* | | |
| | Other: | | |
| | | | |
| | | | |
| | * NO ICE IN THE COOLER. | RH 1-27-20 | |
| | | | |
| | | | |
| | | | |
| | | | |

* Results reported in Units, all others in milligrams per liter (ppm)

| | | |
|---------------------------|--|--|
| Number of Tests Requested | | |
|---------------------------|--|--|

Section Chief

***Samples are tested as received.**

Date Reported _____

SUBMITTER'S COPY



State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project NoE20002458 Date Coll. 01/22/2020 Date Received: 01/23/2020 Submitted By: Thomas

Field ID: HOST0161CLTDS
Lab No.: E20002458001

| <u>Analyte</u> | <u>Method</u> | <u>Result</u> | <u>Units</u> | <u>Date Analyzed</u> |
|------------------------|---------------|---------------|--------------|----------------------|
| Chloride | SM 4500-Cl E | <10 | mg/L | 02/10/2020 |
| Total Dissolved Solids | SM 2540C | 121 | mg/L | 01/24/2020 |

Comments:

Approved by:

Approval date: 02/12/2020

*The following methods are included in our A2LA Scope of Accreditation: EPA150.1, EPA 353.2, EPA 375.2, SM4500F C, SM 4500-CN G & QCM-CN, QCM-CN. Samples are tested as received.

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FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157611 Account #: 1933
Reference: Kingsley Woods Lot 33 Client: Fogle's Well Pump & Treatment
Location: 10513 Pudding Lane Requested By: Dave Fogle
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 2/27/2023 0800 Site: Pressure Tank
Date/Time Rec'd: 2/27/2023 1218 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.8
Collected By: J. Evans 0309JE Well #: HO-18-0161

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|--------------------------------|---------|-------------|-----------|--------------------|------------------------|
| Bacteria, Coliform, Total, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223B | 2/28/2023 / 0830 / MEW |
| Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223B | 2/28/2023 / 0830 / MEW |
| Nitrate. | <0.40 | mg/L | 10 | EPA 300.0 | 2/27/2023 / 1340 / MEW |
| Turbidity | 1.57 | NTU | <10 | SM2130B | 2/28/2023 / 1220 / MEW |
| Iron | 0.12 | mg/L | 0.3* | Hach 8146 | 2/28/2023 / 1250 / MEW |
| Sand | ND | mg/L | 5 | Visual/Gravimetric | 2/27/2023 / 1535 / MEW |

NOTES:

- 1 *SMCL = Secondary Maximum Contaminant Level
- 2 mg/L = milligrams per liter (also, parts per million)
- 3 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 4 NTU = Nephelometric Turbidity Units
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 Sample collected by client, analyzed as received
- 7 ND:None Detected
- 8 Visual well check: Sealed, vented cap
- 9 pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy
Building Permit # : B22000805

Date Reported: 2/28/2023

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

MEMORANDUM

TO: Fogle's Well Drilling
580 Obrecht Road
Sykesville, MD 21784

FROM: Susan Thomas
Environmental Health Specialist *ST 12/27/19*
Howard County Health Department
Well & Septic Program

RE: Kings Forest Subdivision – Well Permits Lots 1-36 and Parcel D
Special Conditions for wells

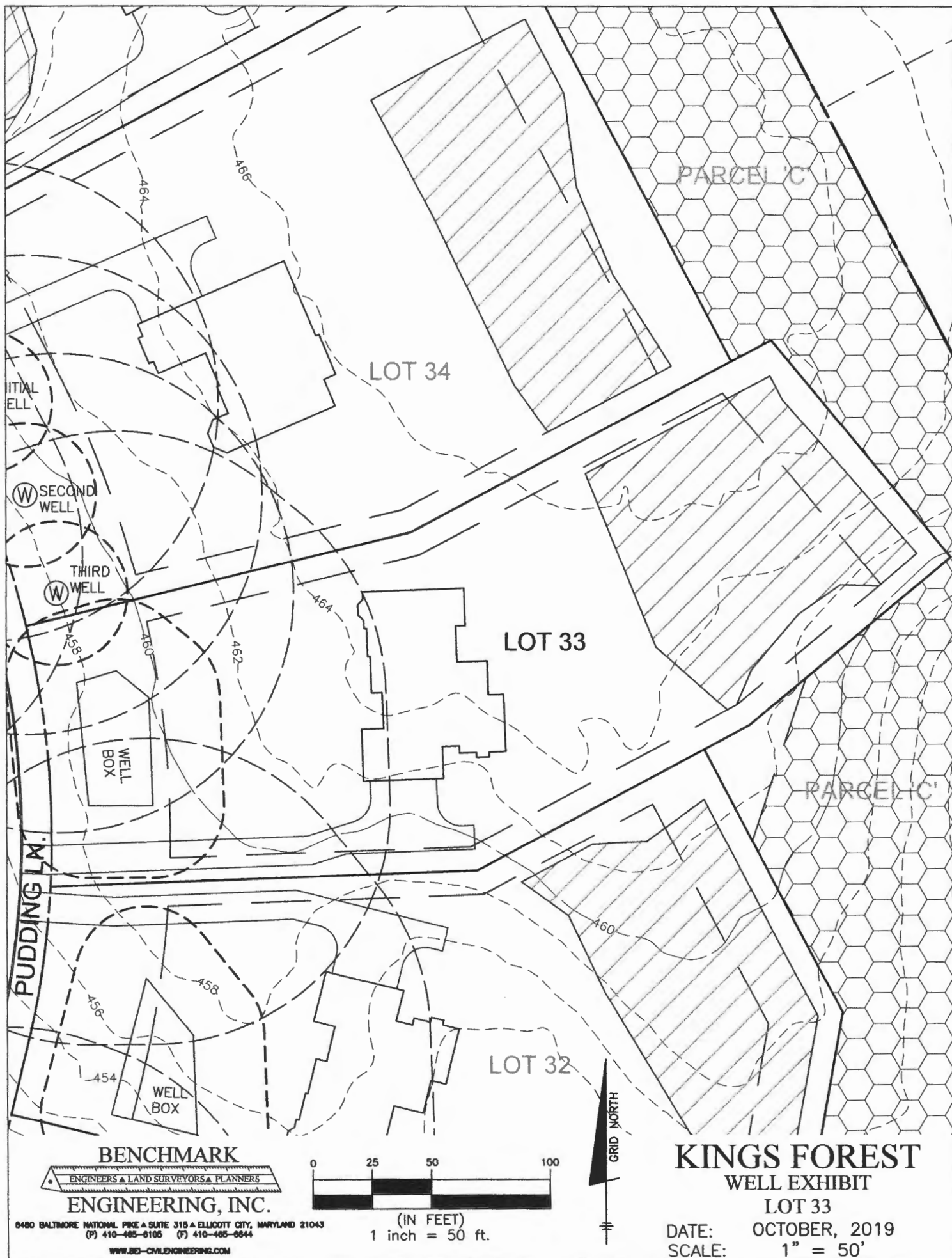
DATE: December 26th, 2019

The following comments apply to the above referenced Well Permit Applications. Please read through and complete as needed.

- A. Lots 17, 26, 27, and 33-35 will require 50' of Steel Casing or 10' into competent bedrock, whichever is deeper.**

10. A waiver for the location of the septic systems and wells, as shown on [Revised Percolation Certification Signed 11/12/2019] has been approved by MDE. As a condition of the approved [sic] of this waiver the initial and all replacement wells on lots 17, 26, 27, and 33 – 35 will require Steel Casings to be installed to 50' or 10' into competent bedrock, whichever is deeper.

- B. All lots in the Kings Forest Subdivision are within the Baltimore Gneiss Formation and will require Water Quality Tests for Radium to be collected at the time of the Yield Test.**
- C. If the wells on Lot 13 or Lot 28 are within 10' of the driveway the well must be surrounded by bollards.**
- D. Lots 2, 8, 9, 13, 18, 21, 24, 26, 27, 28, 33, 34 and 35 will require samples for Sodium, Chloride and TDS to be collected at the time of the Yield Test.**



BENCHMARK

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(P) 410-485-8105 (F) 410-485-8844

WWW.BE3-CIVILENGINEERING.COM

KINGS FOREST
WELL EXHIBIT

LOT 33

DATE: OCTOBER, 2019
SCALE: 1" = 50'