

B 1 32969

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 551843-K please type

STATE PERMIT NUMBER

HO-17-0109 fill in this form completely

Date Received (APA) 11/16/16

OWNER INFORMATION

ELM STREET DEVELOPMENT 1355 BEVERLY RD, SUITE 240 McCLEAN VA 22101

B 3

LOCATION OF WELL

HOWARD MILL CREEK CLARKSVILLE

DRILLER INFORMATION

MICHAEL BARLOW MW D 355 BARLOW WELL DRILLING 522 UNDERWOOD LANE 2014

B 4

SOURCES OF DRILLING WATER

1. Well

HAVILAND MILL RD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST SOUTH EAST 1400 39 6 0001

B 2

WELL INFORMATION

APPROX. PUMPING RATE 5 AVERAGE DAILY QUANTITY NEEDED 750

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

HOWARD 546326-K 13 COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 3/24/17 CO SIGNATURE EXP. DATE 3/2/18

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 OPEN LOOP GEOTHERMAL CLOSED LOOP GEOTHERMAL

DON: 3/28/17 DOG: 4/4/17 DOY: 8/15/17

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

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) AIR-ROTary CABLE other JETTED AIR-PERCussion REVerse-ROTary Jetted & DRIVEN ROTARY (Hydraulic Rotary) DRive-POINT

3/20 - at 300', no water 3/29/17 - drilling completed well @ 300' with 1 gpm, has not been grouted yet 4/4 - grouting well, 25 bags cement so far

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

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

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

APPROX. PERMIT NUMBER HO 2016002 PERMIT No. HO-17-0109

SPECIAL CONDITIONS

SEE ATTACHED MEMO

C1 52476

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 WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM 11 DO 09 YR 17

09 12 17

22 600 26 (TO NEAREST FOOT)

OK (P) 11/27/17

Ho-17-0109

OWNER Elm Street Development
WELL SITE ADDRESS last name Haviland M. II R3 first name TOWN Clarksville
SUBDIVISION Mill Creek SECTION LOT 12

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows include SOIL, Brown shale, Tan Rock, med Gray Rock, Limestone, med Gray Rock.

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

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 25 NO. OF POUNDS 1875
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 30 ft.

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)
PL 6 30

OTHER CASING (if used) 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

NUMBER OF UNSUCCESSFUL WELLS: 0
WELL HYDROFRACTURED YES Y NO 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

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT...

DRILLERS LIC. NO. 1 M D 355
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. AW D 109

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

DEPTH (nearest ft.)
A C H S R E E N
1 Ho 50 600
2 8 9 11 15 17 21
3 23 24 26 30 32 36
4 38 39 41 45 47 51

SLOT SIZE 1 2 3
DIAMETER OF SCREEN (NEAREST INCH) 56 60
from to

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
TELESCOPE CASING LOG INDICATOR OTHER DATA 74 75 76

PUMPING TEST

HOURS PUMPED (nearest hour) 6
PUMPING RATE (gal. per min.) 1.0
METHOD USED TO MEASURE PUMPING RATE Submersible
WATER LEVEL (distance from land surface)
BEFORE PUMPING 49 ft.
WHEN PUMPING 144 ft.
TYPE OF PUMP USED (for test) 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 49
- below 1 (nearest foot)

LATITUDE 39.18409
LONGITUDE 77.00063
(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.

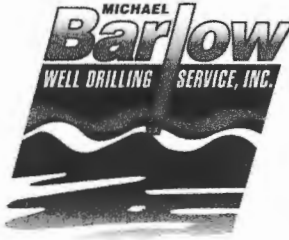


MICHAEL BARLOW WELL DRILLING & SERVICE, INC.
 522 Underwood Lane Bel Air, Maryland 21014
 (410) 838-6910 Fax (410) 838-3582

WELL YIELD REPORT

Date Test Completed:	August 15, 2017		
Well Depth:	600	feet	
Customer	Elm Street Development	Permit #	HO-17-0109
Road	Haviland Mill Road	Subdivision	Mill Creek
City	Clarksville	Section	
State	Maryland	Lot #	12

Time	Water Level feet	Time to Fill 1-gallon bucket seconds	G.P.M.
10:30 AM	49	4	15.00
10:45 AM	139	30	2.00
11:00 AM	148	58	1.03
11:15 AM	148	58	1.03
11:30 AM	148	58	1.03
11:45 AM	148	58	1.03
12:00 PM	148	58	1.03
12:15 PM	147	58	1.03
12:30 PM	147	58	1.03
12:45 PM	147	58	1.03
1:00 PM	147	58	1.03
1:15 PM	147	58	1.03
1:30 PM	147	58	1.03
1:45 PM	146	58	1.03
2:00 PM	146	58	1.03
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2:45 PM	146	58	1.03
3:00 PM	145	58	1.03
3:15 PM	145	58	1.03
3:30 PM	145	58	1.03
3:45 PM	145	58	1.03
4:00 PM	144	58	1.03
4:15 PM	144	58	1.03
4:30 PM	144	58	1.03
4:45 PM	144	58	1.03
5:00 PM	144	58	1.03
This yield test report is for informational purposes only. Please note the yield may increase or decrease over time and the GPM indicated above is not a guarantee.			



MICHAEL BARLOW WELL DRILLING & SERVICE, INC.

522 Underwood Lane
(410) 838-6910

Bel Air, Maryland 21014
Fax (410) 838-3582

WELL YIELD REPORT

Date Test Completed:	September 11, 2017		
Well Depth:	600	feet	
Customer	Elm Street Development	Permit #	HO-17-0109
Road	Haviland Mill Road	Subdivision	Mill Creek
City	Clarksville	Section	
State	Maryland	Lot #	12

Time	Water Level feet	Time to Fill 1-gallon bucket seconds	G.P.M.
11:00 AM	42	4	15.00
11:15 AM	150	60	1.00
11:30 AM	150	60	1.00
11:45 AM	150	60	1.00
12:00 PM	150	60	1.00
12:15 PM	150	60	1.00
12:30 PM	150	60	1.00
12:45 PM	150	60	1.00
1:00 PM	150	60	1.00
1:15 PM	150	60	1.00
1:30 PM	150	60	1.00
1:45 PM	150	60	1.00
2:00 PM	150	60	1.00
2:15 PM	150	60	1.00
2:30 PM	150	60	1.00
2:45 PM	149	60	1.00
3:00 PM	149	60	1.00
3:15 PM	149	60	1.00
3:30 PM	149	60	1.00
3:45 PM	149	60	1.00
4:00 PM	149	60	1.00
4:15 PM	149	60	1.00
4:30 PM	149	60	1.00
4:45 PM	149	60	1.00
5:00 PM	149	60	1.00
5:15 PM	149	60	1.00
This yield test report is for informational purposes only. Please note the yield may increase or decrease over time and the GPM indicated above is not a guarantee.			



HOWARD COUNTY HEALTH DEPARTMENT

mill creek lot 12

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: Foales Well Pumps & Water Treatment, LLC Telephone #: 410 795 5670
Address: 530 Brecht Rd
Clarksville, MD 21784

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

License # and name of individual responsible for the field installation:
Name (Print): David C Foale License# MSDZZ6

*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: NVR INC Telephone #: _____
Subdivision: Mill Creek Lot #: 12 Well Tag #: HO-17-0104
Site Address: 13570 Mill Creek Ct
Clarksville, MD 21029 ✓ 7/10/2019 (C)

Submersible Pump Data

Make: Grundfos
Model #: 74510422
Pump Capacity: 7
Well Yield: 1

Pitless Adapter

Make: Campbell
Model#: NA
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: 1000 (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 NA

Piping to house

Type: 1" poly pipe
PSI: 200 (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: 7/10/19

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

Date Insp. Requested: 7/10/2019 Date Insp. Approved: 7/10/2019 Inspector: [Signature]
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade ✓ 40" 7/10/2019 (C)
Two piece cap installed and attached to casing securely ✓
Elec. conduit extends at least 18" below grade/attached to cap properly ✓ 33" 7/10/2019 (C)
Safety rope not outside of well cap/casing ✓
Correct well tag attached properly and casing 8" above finished grade ✓ 19" 7/10/2019 (C)
Water supply line sleeved adequately at house connection ✓
Adequate grout observed below pitless adapter ✓ 13" 7/10/2019 (C)

Ex House
7/10/2019 (C)

(Revised form 10/24/2018)

Wolf, Kevin

From: Tinordi, Matthew <mtinordi@nvrinc.com>
Sent: Thursday, August 22, 2019 2:33 PM
To: Wolf, Kevin
Cc: Srour, Matthew
Subject: 13870 Mill Creek Court
Attachments: Failing well result 1.pdf; Failing well result 2.pdf; Passing Well Result.pdf

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

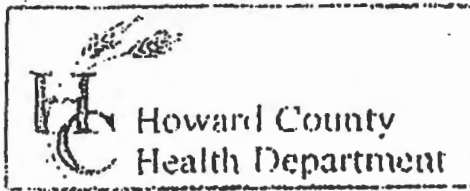
Hi Kevin,

Here are the passing and failing well tests for the address in the subject line. No septic pump or hoot for this house. Please issue icop letter.

Thanks,

Matt Tinord
NV Homes- Production Supervisor
240-278-8060
Mtinordi@nvrinc.com

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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:

INDIVIDUAL

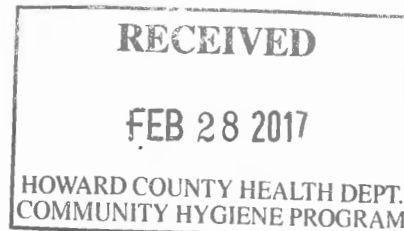
well sites have been staked for Mill Creek

The well site has been staked by Bohler Engineering,
(professional land surveyor or company employing professional land surveyors)
on 2/24/17 (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



INTERIM CERTIFICATE OF POTABILITY

Expiration Date – FEBRUARY 27, 2019

August 27, 2019

Homeowner
13870 Mill Creek Court
Clarksville, MD 21029

RE: Mill Creek, Lot 12
13870 Mill Creek Court
Building Permit: B19001063
Well Permit: HO-17-0109

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 **7/10/2019**. Final approval of the well line connection to the dwelling was granted on **7/10/2019**. The well construction was completed on **9/12/2017**. Water samples were collected on **7/30/2019, 8/8/2019, 8/20/2019**.

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. 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-17-0109. 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 Maryland certified water 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>

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

In closing, please refer to our "[Homeowner Fact Sheet](#)" which illustrates a better understanding for your Onsite Sewage Disposal System. You will also find a link to Maryland Department of the Environment's website which describes in further detail operation and maintenance of your septic system.

Approving Authority,



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

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

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 #: 132196 Account #: 1933
Reference: Mill Creek Lot 12 Company: Fogles Well Pump & Treatment
Location: 13870 Mill Creek Court Requested By: Dave Fogle
Clarksville, MD 21029 Source: Well Water
Date/ Time Collected: 8/20/2019 0730 Site: Kitchen Sink Tap
Date/Time Rec'd: 8/20/2019 1145 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 7.7
Collected By: J. Evans 7411JE Well #: HO-17-0109

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/21/2019 / 0800 / RER
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/21/2019 / 0800 / RER

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Visual well check: Sealed, vented cap
- 5 pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy

Building Permit # : 19001063

Date Reported: 8/21/2019

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 #: 131907 Account #: 1933
Reference: Mill Creek Lot 12 Company: Fogles Well Pump & Treatment
Location: 13870 Mill Creek Court Requested By: Dave Fogle
Clarksville, MD 21029 Source: Well Water
Date/ Time Collected: 8/8/2019 0745 Site: Pressure Tank
Date/Time Rec'd: 8/8/2019 1345 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 7.7
Collected By: J. Evans 7411JE Well #: HO-17-0109

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	4.2	MPN/ 100 ml	<1.0	SM20 9223B	8/9/2019 / 0800 / RER
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/9/2019 / 0800 / RER
Turbidity	7.50	NTU	<10	SM20 2130B	8/8/2019 / 1610 / RER

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 NTU = Nephelometric Turbidity Units
- 3 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 4 ND:None Detected
- 5 Visual well check: Sealed, vented cap
- 6 pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy
Building Permit # : 19001063

Date Reported: 8/9/2019

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 #: 131715 Account #: 1933
Reference: Mill Creek Lot 12 Company: Fogles Well Pump & Treatment
Location: 13870 Mill Creek Court Requested By: Dave Fogle
Clarksville, MD 21029 Source: Well Water
Date/ Time Collected: 7/30/2019 0745 Site: Pressure Tank
Date/Time Rec'd: 7/30/2019 1420 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 7.8
Collected By: J. Evans 7411JE Well #: HO-17-0109

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	13.7	MPN/ 100 ml	<1.0	SM20 9223B	7/31/2019 / 0830 / RER
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	7/31/2019 / 0830 / RER
Nitrate	<1.0	mg/L	10	601	7/30/2019 / 1640 / RER
Turbidity	15.1	NTU	<10	SM20 2130B	7/30/2019 / 1645 / RER
Sand	NS	mg/L	5	Visual/Gravimetric	7/30/2019 / 1645 / RER
Iron	0.10	mg/L	0.3*	FR, 45 (126)	7/31/2019 / 1145 / RER

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 NS = None Seen (NS indicates less than 5 mg/L)
- 5 NTU = Nephelometric Turbidity Units
- 6 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 7 Sample collected by client, analyzed as received
- 8 ND:None Detected
- 9 Visual well check: Sealed, vented cap
- 10 pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy

Building Permit # : 19001063

Date Reported: 7/31/2019

Collins, Sarah

From: Collins, Sarah
Sent: Tuesday, August 01, 2017 7:22 AM
To: 'Mike Isom'
Subject: RE: Mill Creek lot 11

Hi Mike,

It is okay to frack lots 11 and 12. We will need simultaneous yield tests, definitely lots 11 and 12. We may need additional simultaneous yields or at least monitoring of water levels while testing other lots. I'll take measurements of well distances around lots 11 and 12 today and let you know.

Thanks,
Sarah

From: Mike Isom [<mailto:misom@mbwd.us>]
Sent: Tuesday, August 01, 2017 6:48 AM
To: Collins, Sarah
Subject: Re: Mill Creek lot 11

No all 3. I didn't include 20 in the letter because the well is more than 100' from any other well.

Sincerely,

Michael Isom
Project Manager
Michael Barlow Well Drilling Service
Phone: (410) 838-6910
Fax: (410) 838-3582
522 Underwood Lane
Bel Air, MD 21014
www.michaelbarlowwelldrilling.com
www.thermalloopcorp.com
[Click HERE to like us on Facebook!](#)
On 7/31/2017 8:19 AM, Collins, Sarah wrote:

Hi Mike,

Just to check- a previous email said that you'd like to frack lots 11, 12, and 20, but the letter just says lots 11 and 12. Just lots 11 and 12?

Thanks,
Sarah

From: Mike Isom [<mailto:misom@mbwd.us>]
Sent: Friday, July 28, 2017 2:53 PM

**MICHAEL BARLOW WELL DRILLING
522 UNDERWOOD LANE
BEL AIR, MD 21014
410-838-6910**

Howard County Health Department
7178 Columbia Gateway Drive
Columbia, MD 21046
Attn: Sarah Collins

July 28, 2017

Re: Hydrofracture of Mill Creek lots 11 & 12

After multiple drilling attempts on lots 11 and 12 in the Mill Creek subdivision, the developer would like to hydrofracture both lots. While the wells are more than 50' from each other, they are less than 100' apart, which requires authorization from your office. Please advise our office as soon as possible if we can proceed.

Sincerely,



Michael Barlow



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

LOT 12

MEMORANDUM

TO: Barlow Well Drilling

FROM: Ryan Rappaport, L.E.H.S. 
Well and Septic Program

DATE: March 1, 2017

RE: **State Water Appropriation and Use Permit for Crawford Property/Mill Creek Subdivision #HO2016G002(01) & Special Conditions**

The State Water Appropriation and Use Permit for the Crawford Property/Mill Creek Subdivision has a requirement regarding well spacing and testing:

15. The Permittee shall conduct simultaneous yield tests of wells closer than 100 feet apart, if at least one of the wells is on a lot less than one acre in size. The yield testing shall be conducted to ensure that the minimum yield requirements of COMAR 26.04.04.26 are met. In the event that a well that has been tested simultaneously with other wells does not meet minimum yield standards, the Permittee may relocate a well so as to achieve the 100-foot separation distance, deepen or otherwise modify the well to improve its yield or drill a second well to be used in tandem to meet the minimum yield standards during simultaneous testing. All wells shall comply with well construction standards.

The lots of the Crawford Property/Mill Creek Subdivision that are less than an acre are lots 2, 3, 12, 13 and 18. If a well on one of these lots is within 100' of another well, a simultaneous yield test of both wells will be required.

SPECIAL CONDITIONS

- All drilling, grouting and yields must be called into the Health Department for inspection. Call 410-313-1771 for scheduling.
- Since all 23 lots have the well locations staked and not the lot's well boxes it is required that if during the drilling a dry hole is encountered, the Health Department must be notified immediately before any additional drilling is completed on that particular lot.
- The wells on lots 1, 7, 15 and 19 will require TDS, sodium and chloride water samples during the yield test.
- The wells on lots 20 and 21 must be drilled using steel casing that extends to at least 50 feet depth or 10 feet into competent bedrock, whichever is deeper.

Feel free to contact me with any questions at 410-313-1781 or RRappaport@howardcountymd.gov.

Cc: File