ICHD – Environmental Health Division

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PRIVATE DRINKING WATER WELL PERMIT PIN # 4646054900 Type of Permit (circle one): **New** Repair Abandonment PERMIT # 317388

APPLICANT/OWNER NAME: 4G Design Build ADDRESS: 488 Pineville Rd Statesville, NC PHONE: 704 634-3447

DIRECTIONS TO SITE: Brawley School Rd TL Canvasback TL 2nd L Wood Duck Lp on right 28677

SITE ADDRESS: 303 Wood Duck Lp Mooresville, NC SUBDIVISION: Crystal Bay SECTION/LOT: 6

Initial Site Sketch

Scale 1:60



GROUTING RESULTS

Total Depth still drilling

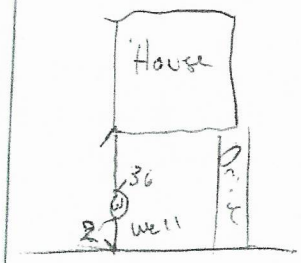
Depth of Casing 85ft

Yield Still drilling

Notes:

24ft grout

19 bags



Well GPS Latitude: _____

Longitude: _____

PERMIT CONDITIONS/COMMENTS: Keep Septic & Well a minimum of 50ft apart & 25ft from House. Follow all NC Well Construction rules.

WELL PERMIT ISSUED BY: Maria Dotson DATE: 6/7/21 (Permit is valid for 5 years from date issued. This permit may be revoked if it is determined there has been a material change in any fact or circumstance upon which the permit is issued. Actions of the employees of the Iredell County Health Department shall in no way be taken as a guarantee that this well will produce water of any particular quantity or quality or for any amount of time. Employees of the Iredell County Health Department assume no liability for any damages, either direct or consequential which may be caused by this well.)

Well Contractor: B & R Well drilling CONTRACTOR CERT #: 2670A GROUT INSPECTION BY: Matt Wentz DATE: 6/10/22

OR CERTIFICATION OF GROUT NOT WITNESSED BY DEPT: _____ DATE: _____ WELL HEAD INSPECTION BY: _____ DATE: Done

WELL HEAD INSPECTION (check when completed): GROUT TO GROUND SURFACE ☐ WELL CONTRACTOR ID PLATE ☐ PUMP INSTALLER ID PLATE ☐ SAMPLE PORT ☐

ACCESS PORT / VENT ☐ WELL SEAL ☐ WELL HEAD 12 INCHES / PITLESS ADAPTOR 8 INCHES ABOVE GRADE ☐

CERTIFICATE OF COMPLETION BY: _____ DATE: _____ WATER SAMPLES BY: Jeanne Kobuck DATE: 1/10/23

Attachments: Form GW-1a (required except for abandonment) ☒ Form GW-30 ☐ Water Sample Results ☐ Plat ☐

North Carolina Division of Public Health
Occupational and Environmental Epidemiology Branch, Epidemiology Section
BIOLOGICAL ANALYSIS REPORT

Private well water information and recommendations

County: Iredell Name: 4G Design Build LLC Sample ID Number: ES230111-0099
Location: 303 Wood Duck Loop Mooresville Reviewer Teanna Kobuck

Initial Sample X Confirmation Sample _____

BIOLOGICAL ANALYSIS RESULTS AND RECOMMENDATIONS FOR USES OF YOUR PRIVATE WELL WATER (These recommendations are based on biological analysis only.)

✔ No coliform bacteria were found in your well water. Your water can be used for all purposes including drinking, cooking, washing dishes, bathing and showering.

_____ Total coliform bacteria were detected in your water sample. Total Coliform are a group of related bacteria that are (with few exceptions) not harmful to humans. A variety of bacteria, parasites, and viruses, known as pathogens, can potentially cause health problems if humans ingest them. EPA considers total coliforms a useful indicator of other pathogens for drinking water. Total coliforms are used to determine the adequacy of water treatment and the integrity of the distribution system

_____ It is recommended that your well water be re-tested to verify that the result is accurate.

_____ Fecal coliform bacteria were detected in the sample. **Do not use the water for drinking, cooking, washing dishes, bathing or showering**.

If the re-test shows contamination by bacteria contact your local health department for assistance. There may be a problem with the construction of the well, the groundwater source, or operation of the well. The well needs to be inspected by the local health department or a local well contractor to determine the problem with the well and to give guidance on how to correct the problem.

Your well water was tested for biological contaminants (total coliform and fecal coliform bacteria). The results were evaluated using the federal drinking water standards.

Drinking water may contain substances that can occur naturally in water or can be introduced into water from man-made sources. Total coliform bacteria are found in soil and fecal coliform bacteria are found in animal and human waste. Total coliform or fecal coliform bacteria in well water indicate that the well may have structural problems or that the well was not properly disinfected.

If you have been drinking the well water and are pregnant, nursing, have a child in the household under 5 years of age, or immunocompromised (such as an individual with AIDS, cancer, hepatitis, dialysis or surgical procedures) inform your physician of these results at your next visit.

If the contamination continues, you should investigate the possibility of drilling a new well or installing a point-of-entry disinfection unit which can use chlorine, ultraviolet light, or ozone.

For further information please contact your county health department or the Occupational and Environmental Epidemiology Branch at 919-707-5900.

North Carolina State Laboratory of Public Health

Environmental Sciences

Microbiology

Certificate of Analysis

4312 District Drive
MSC 1918
Raleigh, NC 27699-1918

http://slph.ncpublichealth.com
Phone: 919-733-7308
Fax: 919-715-8611

FINAL REPORT

Report to: Teanna Kobuck

IREDELL CO. ENVIRONMENTAL HEALTH DEPT - MOORESVILLE
610 EAST CENTER AVENUE
Mooresville, NC 28115

Name of System:

4G Design Build LLC
303 Wood Duck Loop
Mooresville, NC 28117

EIN: 566000309E **Delivery:** NC Courier **Iredell County**

StarLiMS ID: ES230111-0099

Date Collected: 01/10/2023 Time Collected: 09:05 By: Teanna Kobuck
Date Received: 01/11/2023 Time Received: 08:45 By: Angela Heybroek

Sample Source: New Well
Sample Type: Raw
Treatment:

Sampling Point: Well head
GPS No.
Well Permit No. AP-317388

Comment:

Colilert Profile **Method: SM 9223B**

Analyte	Test Result	Unit	Conclusion	Date Tested
Total Coliform	Absent			01/11/2023
E. coli	Absent			01/11/2023

Report Date: 01/13/2023 **Reported By:** CGOFORTH

Explanations of Coliform Analysis:

If coliform bacteria are **Absent**, the water is considered safe for drinking purpose. If coliform bacteria are **Present**, the water is considered unsafe for drinking purpose. Presence of *E. coli* (bacteria) generally indicates that the water has been contaminated with fecal material. It must be remembered that a water analysis refers only to the sample received and should not be regarded as a complete report on the water supply.

N O R T H C A R O L I N A

NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES
Division of Public Health

Private Well Information and Use Recommendations

For Inorganic Chemical Contaminants

County: Iredell

Sample Name: 303 Wood Duck Loop Mooresville

Sample ID #: ES230111-0022

Reviewer: Teanna Kobuck

TEST RESULTS AND USE RECOMMENDATIONS

1. ☑ Your well water meets federal drinking water standards ***for inorganic chemicals***. Your water can be used for drinking, cooking, washing, cleaning, bathing, and showering based on the ***inorganic chemical results only***. You may have other water sampling results that are not taken into account in this report.

2. ☐ The following substance(s) exceeded federal drinking water standards or the North Carolina 2L calculated health levels. The North Carolina Division of Public Health recommends that your well water not be used for drinking and cooking unless you install a water treatment system to remove the checked substance(s). However, it may be used for washing, cleaning, bathing, and showering based on the ***inorganic chemical results only***.

☐Arsenic ☐Barium ☐Cadmium ☐Chromium ☐Copper ☐Fluoride ☐Iron
☐Lead ☐Manganese ☐Mercury ☐Nickel ☐Nitrate/Nitrite ☐Selenium ☐Silver
☐Zinc

3. ☐ While your lead levels do not exceed federal or state standards, the North Carolina Division of Public Health has concerns with any detection of lead. Should you have any questions please contact the NC Private Well and Health Program at (919) 707 - 5900.

4. ☐ Re-sample for lead and /or copper. Take a first draw and 30-second flush sample inside the house (preferably the kitchen sink) and a first draw and 4 minutes flush sample at the wellhead to determine the source of the lead and/ or copper.

5. ☐ The following substance(s) exceeded aesthetic drinking water standards. Your water can be used for drinking, cooking, washing, cleaning, bathing, and showering based on the ***inorganic chemical results only***, but aesthetic problems such as bad taste, odor, staining of porcelain, etc. may occur. You may want to install a household water treatment system to address aesthetic problems.

☐Chloride ☐Copper ☐Flouride ☐Iron ☐Manganese
☐pH ☐Silver ☐Sulfate ☐Zinc

6. ☐ a. Sodium levels exceed the U.S. Environmental Protection Agency's (USEPA) Health Advisory level for sodium of 20 mg/l. The North Carolina Division of Public Health recommends that only individuals on no or low sodium-restricted diets not use this water for drinking or cooking. It may be used for washing, cleaning, bathing, and showering based on the ***inorganic chemical results only***.

☐b. Your sodium level exceeds 30 mg/L and may pose aesthetic issues such as bad taste, odor, staining of porcelain, etc.

7. ☐ Re-sampling is recommended in _____ months, to reinvestigate _____.

For more information regarding your well water results, please call the North Carolina Division of Public Health at 919-707-5900.

North Carolina State Laboratory of Public Health
Environmental Sciences
Inorganic Chemistry

4312 District Drive
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Certificate of Analysis

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IREDELL CO. ENVIRONMENTAL HEALTH DEPT - MOORESVILLE
610 EAST CENTER AVENUE
MOORESVILLE, NC 28115

Name of System:

4 G Design Build LLC
303 Wood Duck Loop
Mooresville, NC 28117

EIN: 566000309E

Delivery: NC Courier

StarLiMS ID: ES230111-0022

Date Collected: 01/10/2023
Time Collected: 09:05
By: Teanna Kobuck
Date Received: 01/11/2023
Time Received: 07:45

Sample Type: Raw
Sample Source: New Well
Sampling Point: Well head
Receipt Temp. : 0.5 °C
Well Permit No. AP-317388
GPS Number:

Profile: New Well I

Analyte	Test Result	Allowable Limit	Unit	Qualifier(s)
Arsenic	0.003	0.010	mg/L	
Barium	<0.1	2.0	mg/L	
Cadmium	<0.0001	0.005	mg/L	
Calcium	46		mg/L	
Chloride	10.6	250	mg/L	
Chromium	<0.02	0.10	mg/L	
Copper	<0.01	1.3	mg/L	
Fluoride	0.667	4.00	mg/L	
Iron	<0.06	0.30	mg/L	
Lead	<0.003	0.015	mg/L	
Magnesium	3		mg/L	
Manganese	<0.005	0.05	mg/L	
Mercury	<0.0004	0.002	mg/L	
Nickel	<0.01	0.1	mg/L	
Nitrate	<1	10.0	mg/L	
Nitrite	<0.1	1.00	mg/L	
pH	8.1		N/A	
Selenium	<0.005	0.05	mg/L	
Silver	<0.01	0.10	mg/L	
Sodium	19.0		mg/L	
Sulfate	100.7	250	mg/L	
Total Alkalinity	51		mg/L	
Total Hardness	125		mg/L	
Zinc	<0.05	5.0	mg/L	