



**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: ANDREW CURRIN**

**Name of System:**

**HARNETT CO ENVIRONMENTAL HEALTH**  
**307 CORNELIUS HARNETT BLVD**  
**Lillington, NC 27546**

**Dennis & Jennifer Patten**  
**1290 Cokebury Rd.**  
**Fuquay Varina, NC 27526**

**EIN: 566000306EH**

**Delivery: NC Courier**

**Harnett County**

StarLiMS ID: **ES181010-0139**

Date Collected: 10/09/2018

Time Collected: 10:15 By: Andrew Currin

Date Received: 10/10/2018

Time Received: 08:59 By: Susan Beasley

Sample Source: New Well

Sampling Point: Well head

Sample Type:

GPS No.

Treatment:

Well Permit No. 17-5-41554

Comment:

**Colilert Profile**

**Method: SM 9223B**

Analyte	Test Result	Unit	Conclusion	Date Tested
Total Coliform	Absent			10/10/2018
E. coli	Absent			10/10/2018

**Report Date: 10/16/2018**

**Reported By: Susan Beasley**

**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.

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

Private well water information and recommendations

County: Harnett Name: Dennis Patten Sample ID Number: ES181010-0139  
Location: 1290 Cokesbury Road Reviewer Andrew Curran, NCHS  
Fogus - Varina, NC 27526  
Initial Sample \_\_\_\_\_ 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 the sample which indicates that harmful bacteria from human or animal waste could enter the well. Do not use the water for drinking or cooking unless it has been boiled for 3 minutes. You may use your water for all other purposes including washing dishes, bathing or showering.

\_\_\_\_\_ Your well water needs to 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  
4312 District Dr. – P. O. Box 28047, Raleigh, NC 27607  
Tel 919-733-7308 Fax 919-715-8611 MSC 1918

### Environmental Microbiology Private Well Water Sample

Complete all items – please write legibly.

Total Coliform  
Confirmation

<b>Well Identification:</b>		<b>Water Source:</b>	
Well Permit #: <u>17-5-41554</u>	Name: <u>Dennis &amp; Jennifer Patten</u>	<input type="checkbox"/> Existing Well <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Other: _____	
Physical Address: <u>1296 Collesbury Road</u>	City: <u>Foggy-Varina</u>	<b>Sample Collection:</b>	
Zip: <u>27526</u> County: <u>Harnett</u>	GPS Location: _____	*Date: <u>10/09/2018</u>	*Time: <u>10:15</u> (AM/PM)
		Sampling point: <u>Well Head</u>	Collected by: <u>[Signature]</u>
<b>*Report to EIN:</b>		Address: <u>307 W. Cornelius Harnett Blvd</u>	
EH Specialist: <u>Andrew Curran, MELS</u>	Health Department: <u>Harnett County</u>	City: <u>Lillington</u>	Zip: <u>27546</u> Phone: <u>910 893 7547</u>
<b>Analysis Request – Check requested analysis - one per kit</b>			
<input checked="" type="checkbox"/> Total Coliform/ <i>E. coli</i> , P/A	<input type="checkbox"/> Enterococcus, MPN	<input type="checkbox"/> Iron Bacteria/Microscopic Exam	
<input checked="" type="checkbox"/> Total Coliform/ <i>E. coli</i> , MPN	<input type="checkbox"/> Pseudomonas, MPN	<input type="checkbox"/> Sulfur/Sulfate-Reducing Bacteria, P/A	
<input checked="" type="checkbox"/> Fecal Coliform, MPN	<input type="checkbox"/> Heterotrophic Plate Count, cfu/mL	<input type="checkbox"/> New-Well repeat/follow-up	
<input type="checkbox"/> Grade A Milk Program Sample	<input type="checkbox"/> Other (contact laboratory prior to submittal):		
P/A = Presence/Absence		MPN = Most Probable Number (quantitative result)	
<b>Laboratory Use Only:</b>		<b>Sample Identification Numbers:</b>	
Date/Time: _____	AM/PM		
Received by: _____			
Delivered by: <u>US Mail</u>	<u>NC Courier</u>		
	<u>Commercial courier</u>		
Temperature upon receipt: _____	°C		



July 12, 2018

Harnett County Government Complex  
307 W. Cornelius Harnett Boulevard  
Lillington, NC 27546

Dennis & Jennifer Patten  
P O Box 1256  
Fuquay Varina, NC 27526

ph: 910-893-7547  
fax: 910-893-9371

**RE: Water samples collected at: 1290 Cokesbury Rd.  
New Well Application #17-5-41554**

Dear Mr. and Mrs. Patten,

The report of your water sample taken for bacteria, revealed the presence of Total Coli form. A copy of both water sample reports are enclosed.

The enclosed pamphlet provides specific directions about how to disinfect the well. If you have any questions regarding disinfection, contact the Fayetteville Regional Office at (910) 433-3300 or contact me at (910) 893-7547.

As soon as the well has been treated, contact the Harnett County Division of Environmental Health so another sample can be taken. No fee will be charged for a second sample if the request is made within thirty (30) days of this letter. After thirty (30) days, the fee for a second sample is \$25.00.

If you have any questions, please call me Monday through Friday between 8:00 and 9:00 a.m. at (910) 893-7547.

Sincerely,

Andrew Currin, R.E.H.S.  
Environmental Health Specialist  
Harnett County Department of Public Health

AC/sgs

Enclosures: *Water Sample Report*  
*Biological Analysis Report*  
*How to Disinfect Your Water Well*

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

Private well water information and recommendations

County: Harnett Name: Dennis & Jennifer Patten Sample ID Number: ES062718-0100001  
Location: 1290 Cokesbury Rd. Reviewer Andrew Curran, NCHS  
Highway - Virginia, NC 27526  
Initial Sample  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.

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

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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.



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Environmental Sciences  
Microbiology  
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Report To:  
HARNETT CO ENVIRONMENTAL HEALTH  
307 CORNELIUS HARNETT BLVD

LILLINGTON, NC 27546  
EIN:566000306EH

COURIER #: 14-73-01

Name of System:  
DENNIS & JENNIFER PATTEN

1290 COKESBURY ROAD  
FUQUAY VARINA, NC 27526

StarLiMS Sample ID: **ES062718-0100001**



Collected: 06/26/2018 12:00  
Received: 06/27/2018 08:40

Andrew Currin  
Susan Beasley

ES Microbiology ID:  
GPS Number:

Sample Source: **New Well**  
Sampling Point: **Well head**

Well Permit Number:  
**17-5-41554**

Sample Description:  
Comment:

Environmental Microbiology - Colilert Profile

Method: SM 9223B

Test Name: Colilert

Analyte	Test Result	Date
Total Coliform, Colilert	Present	06/28/2018
<i>E. coli</i> , Colilert	Absent	06/28/2018

Report Date: 07/02/2018

Reported By: Susan Beasley

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.



# Private Well Information and Use Recommendations

## For Inorganic Chemical Contaminants

County: Harnett

Name: Dennis & Jennifer Patten

Sample ID #: ES062718-002001

Reviewer: Andrew Curran, MCHS

### TEST RESULTS AND USE RECOMMENDATIONS

- 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.
- 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 circled 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	Lead	Iron	
Manganese	Mercury	Nitrate/Nitrite	Selenium	Silver	Magnesium	Zinc	pH	

3.  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. Levels over 30 mg/l may pose aesthetic problems such as bad taste, odor, staining of porcelain, etc.

4.  Re-sampling is recommended in \_\_\_\_\_ months.

5.  Re-sample for lead and /or copper. Take a first draw, 5 minute, and 15 minute sample inside the house (preferably the kitchen) and if possible a first draw, 5 minute and a 15 minute sample at the well head to determine the source of the lead and/or copper.

6.  The following substance(s) exceeded federal 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.

Barium	Cadmium	Chromium	Fluoride	Iron	Magnesium
Manganese	Selenium	Silver	pH	Zinc	

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

The Environmental Protection Agency (EPA) considers Manganese as a secondary contaminant which means it does NOT have a direct impact on health.



North Carolina State Laboratory of Public Health  
Environmental Sciences  
Inorganic Chemistry  
Certificate of Analysis

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Fax: 919-715-8611

Report To: **ANDREW CURRIN**

Name of System:

**HARNETT CO ENVIRONMENTAL HEALTH  
307 CORNELIUS HARNETT BLVD**

**DENNIS & JENNIFER PATTEN**

**LILLINGTON, NC 27546  
EIN: 566000306EH**

**Courier # 14-73-01**

**1290 COKESBURY ROAD  
FUQUAY VARINA, NC 27526**

StarLiMS ID: **ES062718-0021001**

Date Collected: 06/26/18

Time Collected: 12:00 PM

Date Received: 06/27/18

Collected By: Andrew Currin

Sample Type: Raw  
Sample Source: New Well

Sampling Point: Well head  
Temp. at Receipt: 4.6

Well Permit #: 17-5-41554  
GPS #:

Sample Description:  
Comment:

**New Well I (Profile)**

Analyte	Result	Allowable Limit	Unit	Qualifier(s)
Arsenic	< 0.005	0.010	mg/L	
Barium	0.250	2.00	mg/L	
Cadmium	< 0.001	0.005	mg/L	
Calcium	29		mg/L	
Chloride	< 5.00	250	mg/L	
Chromium	< 0.01	0.10	mg/L	
Copper	< 0.05	1.3	mg/L	
Fluoride	0.37	4.00	mg/L	
Iron	< 0.10	0.30	mg/L	
Lead	< 0.005	0.015	mg/L	
Magnesium	3		mg/L	
Manganese	0.052	0.05	mg/L	
Mercury	< 0.0005	0.002	mg/L	
Nitrate	< 1.00	10.00	mg/L	
Nitrite	< 0.1	1.00	mg/L	
pH	8.1		N/A	
Selenium	< 0.005	0.05	mg/L	
Silver	< 0.05	0.10	mg/L	
Sodium	16.00		mg/L	
Sulfate	< 5.00	250	mg/L	
Total Alkalinity	110		mg/L	
Total Hardness	84		mg/L	
Zinc	< 0.05	5.00	mg/L	

Report Date: 07/09/2018

Reported By: Kenneth Greene