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

nc department of health and human services

# Private Well Information and Use Recommendations

## *For Inorganic Chemical Contaminants*

County: Iredell Name: Michael Nelson

Sample ID #: 202759 Reviewer: Justin Anderson

### 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 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.***

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

P.O. Box 28047
4312 District Drive
Raleigh, NC 27611-8047
http://slph.ncpublichealth.com
Phone: 919-733-7308
Fax: 919-715-8611

**Report To:** **JUSTIN HENDERSON**

**IREDELL CO ENVIRONMENTAL HEALTH DEPT - ST/**
**349 N. CENTER STREET**

**STATESVILLE, NC 28677**
**EIN: 566000309EH**

**Courier # 09-36-07**

**Name of System:**

**MICHAEL NEILSON**

**157 DRIFTWOOD COVE RD**
**TROUTMAN, NC 28166**

StarLiMS ID: **ES111815-0032001**

Date Collected: 11/17/15
Date Received: 11/18/15

Time Collected: 1:35 PM
Collected By: Justin Henderson

Sample Type: Raw
Sample Source: New Well

Sampling Point: Outside faucet
Temp. at Receipt: 1.0

Well Permit #: 202759
GPS #:

Sample Description:
Comment:

**New Well I (Profile)**

| Analyte | Result | Allowable Limit | Unit | Qualifier(s) |
|---|---|---|---|---|
| Arsenic | < 0.005 | 0.010 | mg/L | |
| Barium | < 0.1 | 2.00 | mg/L | |
| Cadmium | < 0.001 | 0.005 | mg/L | |
| Calcium | 13 | | mg/L | |
| Chloride | < 5.00 | 250 | mg/L | |
| Chromium | < 0.01 | 0.10 | mg/L | |
| Copper | < 0.05 | 1.3 | mg/L | |
| Fluoride | < 0.20 | 4.00 | mg/L | |
| Iron | < 0.10 | 0.30 | mg/L | |
| Lead | < 0.005 | 0.015 | mg/L | |
| Magnesium | 2 | | mg/L | |
| Manganese | < 0.03 | 0.05 | mg/L | |
| Mercury | < 0.0005 | 0.002 | mg/L | |
| Nitrate | < 1.00 | 10.00 | mg/L | |
| Nitrite | < 0.10 | 1.00 | mg/L | |
| pH | 7.9 | | N/A | |
| Selenium | < 0.005 | 0.05 | mg/L | |
| Silver | < 0.05 | 0.10 | mg/L | |
| Sodium | 6.60 | | mg/L | |
| Sulfate | < 5.00 | 250 | mg/L | |
| Total Alkalinity | 51 | | mg/L | |
| Total Hardness | 43 | | mg/L | |
| Zinc | < 0.05 | 5.00 | mg/L | |

**Report Date:** 11/24/2015

**Reported By:** *Arnold Hall*

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: Michael Neilson Sample ID Number: 207759
Location: 157 Driftwood Cove Rd. Reviewer Justin Rhodes

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 Public Health

*Environmental Sciences*

**Microbiology**

Certificate of Analysis

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**Report To:**
**IREDELL CO ENVIRONMENTAL HEALTH DEPT - STATE**
**349 N. CENTER STREET**

**STATESVILLE, NC 28677**
**EIN:566000309EH**

**COURIER #: 09-36-07**

**Name of System:**
**MICHAEL NEILSON**

**157 DRIFTWOOD COVE RD**
**TROUTMAN, NC 28166**

StarLiMS Sample ID: **ES111815-0087001**

Collected: 11/17/2015 13:35
Received: 11/18/2015 08:24

**Justin Henderson**
**Susan Beasley**

ES Microbiology ID:
GPS Number:

Sample Source: **New Well**
Sampling Point: **Outside faucet**

Well Permit Number: **202759**

Sample Description:
Comment:

**Environmental Microbiology - Colilert Profile**

**Method:** SM 9223B

**Test Name: Colilert**

| Analyte | Test Result | Analyst | Date |
|---|---|---|---|
| Total Coliform, Colilert | Present | Denise Richardson | 11/19/2015 |
| *E. coli*, Colilert | Absent | Denise Richardson | 11/19/2015 |

**Report Date:** 11/20/2015

**Reported By:** Susan Beasley

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.