North Carolina State Laboratory of Public Health

Environmental Sciences

Inorganic Chemistry

4312 District Drive
MSC 1918
Raleigh, NC 27699-1918

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

Certificate of Analysis

FINAL REPORT

Report to: **ANDREW CURRIN**

HARNETT CO ENVIRONMENTAL HEALTH
307 CORNELIUS HARNETT BLVD
LILLINGTON, NC 27546

Name of System:

Luke Jackson
160 Smith Lucas Rd
Dunn, NC 28334

EIN: 566000306EH

Delivery: **NC Courier**

StarLiMS ID: **ES220310-0010**

Date Collected: 03/09/2022
Time Collected: 13:45
By: Andrew Currin
Date Received: 03/10/2022
Time Received: 07:29

Sample Type: Raw
Sample Source: New Well
Sampling Point: Well Head
Receipt Temp. : 2.5 °C
Well Permit No. SFD2104-0063
GPS Number:

Profile: New Well I

Analyte	Test Result	Allowable Limit	Unit	Qualifier(s)
Arsenic	<0.001	0.010	mg/L	
Barium	<0.1	2.0	mg/L	
Cadmium	<0.0001	0.005	mg/L	
Calcium	4		mg/L	
Chloride	16.0	250	mg/L	
Chromium	<0.02	0.10	mg/L	
Copper	0.33	1.3	mg/L	
Fluoride	<0.1	4.00	mg/L	
Iron	7.46	0.30	mg/L	
Lead	0.003	0.015	mg/L	
Magnesium	2		mg/L	
Manganese	0.10	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	5.7		N/A	
Selenium	<0.005	0.05	mg/L	
Silver	<0.01	0.10	mg/L	
Sodium	8.3		mg/L	
Sulfate	<5	250	mg/L	
Total Alkalinity	7		mg/L	
Total Hardness	18		mg/L	
Zinc	1.06	5.0	mg/L	

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FINAL REPORT

Report Date: 04/04/2022

Reported By: Marc Komlos

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: HARNETT

Name: ~~ANDREW~~ LUKE JACKSON

160 SMITH LUCAS RD. DUNN, NC 28334

Sample ID #: ES220310-0010

Reviewer: ANDREW CUNNING, REHS

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.

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

Private Well Data Review

For Inorganic Analysis Reports

A Guide for Local Health Departments

The purpose of this guide is to assist the local health departments with preparing private well information and use recommendation reports for inorganic chemical contaminants.

Inorganic Analysis Data Review Reports:

1. *Complete the county, resident name (or address), sample id# (StarLIMS ID), and reviewer information at the top of the inorganic analysis data review report.*

2. *Compare well water results to table 1.*

Table 1. EPA Maximum Contaminant Levels, EPA Health Advisories and Health Based NC 2L Standards

Inorganic Contaminant	Standard (mg/L)	Source of Standard
Arsenic	0.01	Primary Maximum Contaminant Level[1]
Barium	2	Primary Maximum Contaminant Level[1]
Cadmium	0.005	Primary Maximum Contaminant Level[1]
Chromium	0.1	Primary Maximum Contaminant Level[1]
Copper	1.3	Primary Maximum Contaminant Level[1]
Fluoride	4	Primary Maximum Contaminant Level[1]
Iron	2.5*	North Carolina 2L Groundwater Standard[2]
Lead	0.015	Primary Maximum Contaminant Level[1]
Manganese	0.3	USEPA Health Advisory[1]
Mercury	0.002	Primary Maximum Contaminant Level[1]
Nitrate/Nitrite	10/1	Primary Maximum Contaminant Level[1]
Selenium	0.05	Primary Maximum Contaminant Level[1]
Silver	0.02	North Carolina 2L Groundwater Standard[2]
Magnesium	No Standard	
Zinc	1	North Carolina 2L Groundwater Standard[2]
pH	No Standard	

[1] United States Environmental Protection Agency (USEPA) Drinking Water Standards and Health Advisories, 2012
[2] North Carolina Department of Environment and Quality (NCDEQ); *NCDEQ Calculated HRE value

   a. *If all inorganic chemicals are at or below Table 1 values, then Check box [1]*
   b. *If one or more of the inorganic chemicals is above Table 1 values, then Check box [2] and circle the appropriate contaminant(s) under box [2].*

3. *Compare sodium results to 20 mg/L US EPA Health Advisory.*
   a. *If at or below the 20 mg/L US EPA advisory, proceed to step 4.*
   b. *If above the 20 mg/L advisory, then Check box [3a].*
   c. *If above 30 mg/L, then check boxes [3b].*