Groundwater & Wastewater Services
Well Project File & Data Review Worksheet

GWS File #: 2188 WASPS App #: 13970

ES assigned to project: Heather R.

Well Fee Paid: $550 (HR)

Project Type: New Well ☒ Well Abandonment ☐ Major Repair ☐

Septic System Status: Permit in progress ☑ System installation completed ☐ N/A-Sewer ☐

I. File Review:

Completed application	Yes ☑	No ☐				
ARGU review report	Yes ☐	No ☐	N/A ☑			
Signed permit	Yes ☑	No ☐				
Notification of disinfection	Yes ☑	No ☑	N/A ☐			
Sample Results	TC ☑	Nitrate/Nitrite ☑	Other ☑	N/A ☐		
GW-1 Form / GW-30 Form	Yes ☑	No ☐				
Other related documentation	Yes ☑	No ☐	N/A ☐			

Items requiring correction/modification: _____

Comments: Signatures Sent 7/13 Received 7/17

II. WASPS Review:

Completed application w/ valid address	Yes ☑	No ☐	
ARGU review completed	Yes ☐	No ☐	N/A ☑
Permit issued	Yes ☑	No ☐	
Activity checklist completed	Yes ☑	No ☐	
Appropriate comments included	Yes ☑	No ☐	
Site information record completed	Yes ☑	No ☐	
Well detail record completed	Yes ☑	No ☐	

Items requiring correction/modification: _____

Comments: Well Complete

Application received date: 7/6/23 ES assigned date: 7/6/23 Permit issued date: _____

Well approval date: _____ Number of days to complete project: _____

Review performed by: [signature] Date performed: 7/30/24

20188 / 13970

28 JUN '23 AM 11:31

MECKLENBURG COUNTY
HEALTH DEPARTMENT

APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

1. **SEPTIC / TYPE APPLICATION:** ◉ N/A ○ NEW SYSTEM ○ ALTERATION ○ REPAIR ○ MODIFIED PLOT PLAN

2. **WELL / TYPE APPLICATION:** ○ N/A ◉ NEW WELL ○ MAJOR REPAIR ○ ABANDONMENT

3. **JOB LOCATION INFORMATION:**

TAX PARCEL NUMBER: 01730141
STREET ADDRESS: 11927 Swansboro Ln
CITY: Huntersvillel
STATE: NC ZIP: 28078
SUBDIVISION NAME:
LOT #: 020 LOT SIZE (acres): 0.86

TOWNSHIP:
○ MECKLENBURG ○ CORNELIUS ◉ HUNTERSVILLE
○ DAVIDSON ○ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ○ MINT HILL

4. **BUILDING INFORMATION:**

BUILDING TYPE:
○ SINGLE MOBILE HOME ○ MODULAR HOME
○ DOUBLE WIDE ○ MULTIPLE FAMILY
◉ HOUSE ○ OTHER

HEATED SQUARE FOOTAGE: 2230
NUMBER OF BEDROOMS: 3
NUMBER OF OCCUPANTS: 4

FOUNDATION TYPE:
◉ CONCRETE SLAB ○ BASEMENT WITH PLUMBING
○ CRAWL SPACE ○ BASEMENT WITH NO PLUMBING

5. **IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM PLEASE COMPLETE THE FOLLOWING SECTION:** ☑ N/A

NUMBER OF BEDROOMS TO BE ADDED: _____ NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: _____

6. **WATER SUPPLY:** ○ MUNICIPAL ◉ PRIVATE WELL ○ PUBLIC WELL ○ SHARED WELL ○ OTHER _____

7. **PROPOSED USE OF WELL:** ○ N/A ○ IRRIGATION ◉ POTABLE (DRINKING WATER) ○ OTHER _____

8. **PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE** *(1-MOST DESIRED 5-LEAST DESIRED):*

☑ N/A ☐ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

8A. **RANK:** ____ ____ ____ ____ ____

9. **DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.**

BURIED CABLES, LANDFILLS, STUMPHOLES	○ YES ◉ NO	GRADING/SOIL REMOVAL PERFORMED	○ YES ◉ NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	◉ YES ○ NO	JURISDICTIONAL WETLANDS	○ YES ◉ NO
WELLS, SPRINGS, OR WATER LINES	◉ YES ○ NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	○ YES ◉ NO
EASEMENTS OR RIGHT-OF-WAYS	○ YES ◉ NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	○ YES ◉ NO
CHEMICAL/PETROLEUM STORAGE TANKS	○ YES ○ NO	KNOWN UNDERGROUND CONTAMINATION	○ YES ◉ NO
WASTE STORAGE	○ YES ◉ NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	○ YES ◉ NO

10. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** _____ ☑ UNKNOWN

11. **WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?** _____ ☑ N/A

12. **PROPERTY OWNER:**

NAME: Victor Juarez Lopez
ADDRESS: 9300 Hambright Rd
CITY: Huntersville
STATE: NC ZIP: 28078
WORK PHONE:
MOBILE PHONE: 704-763-2792
FAX:
E-MAIL: juarezlopezvictor24@gmail.com

13. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**

**Owner's Authorization form is required if legal representative is submitting application*

NAME:
ADDRESS:
CITY:
STATE: ZIP:
WORK PHONE:
MOBILE PHONE:
FAX:
E-MAIL:

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
3205 Freedom Drive, Suite 8000, Charlotte, NC 28208
OFFICE: 980-314-1680, FAX: 704-336-6894 Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

14. SEPTIC SYSTEM PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for either sixty (60) months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

_____ (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for a period of twelve (12) months from the date of issuance.

VJL (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below. A PROPOSED PLOT PLAN is required to be submitted with each application.

Victor Lopez

Property Owner's or Owner's Legal Representative Signature

06/28/2023

Date

OFFICE USE ONLY

○ SURVEY PLAT TO SCALE SUBMITTED ○ SCALED SITE PLAN SUBMITTED ○ UN-SCALED SITE PLAN SUBMITTED

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

WELL APPLICATION FEE RECEIVED: $ 550 DATE FEE RECEIVED: 7/6/23

APPLICATION PROCESSED BY: MP

GWS FILE NUMBER ASSIGNED: 20188

APPLICATION ID NUMBER ASSIGNED: 13970

COMMENTS:

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
3205 Freedom Drive, Suite 8000, Charlotte, NC 28208
OFFICE: 980-314-1680, FAX: 704-336-6894 Email: Wellreg@MecklenburgCountyNC.gov

File #: 20188

PROPOSED PLOT PLAN

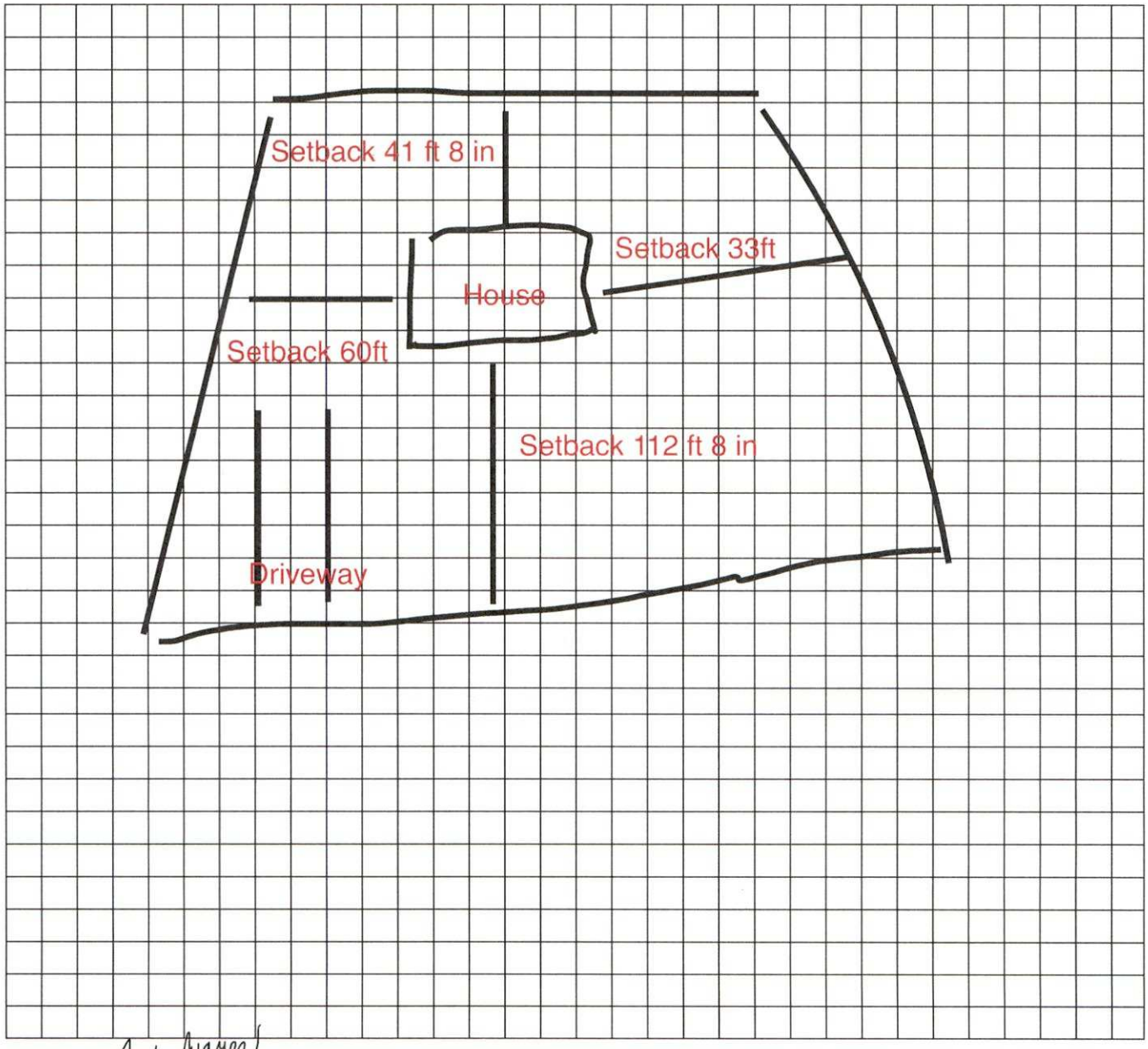
A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 11927 Swansboro Ln

Tax Parcel #: 01730141

Subdivision Name: _____

Lot #: 020



Victor Jaramillo

Property Owner's or Owner's Legal Representative Signature

06/28/2023

Date

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
3205 Freedom Drive, Suite 8000, Charlotte, NC 28208
OFFICE: 980-314-1680, FAX: 704-336-6894 Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 07/06/23
Receipt #: 143394
Check / Auth #: VISA 020446
Received By: ORTIZMP

Amount: 550.00
Tendered: 550.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: JUAREZ LOPEZ, VICTOR
Attn:
Address: 9300 HAMBRIGHT RD
Address:
City/State/Zip: HUNTERSVILLE, NC 28078

Item	Description	Permit#	Quantity	Unit Price	Total Price
0753	Private Well, New 11927 SWANSBORO LN		1	550.00	550.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
		555.00			

Mecklenburg County Health Department
Groundwater & Wastewater Services
3205 Freedom Dr., Suite 8000
Charlotte, NC 28202
Phone: (980) 314-1680
Fax: (704) 336-6894

PERMIT TO CONSTRUCT A WATER SUPPLY WELL

Permit #: 10013970 **File #:** 20188 **Tax Parcel #:** 017-301-41
Property Owner: VICTOR JUAREZ LOPEZ
Job Location Address: 11927 SWANSBORO LN
City/ETJ: HUNTERSVILLE **State:** NC **Zip Code:** 28078
Permit Issuance Date: 7/11/2023
Use of Well: Potable
Type of Facility Served by Well: House

Area of Regulated Groundwater Usage Review: NO

General Conditions of This Permit:

- Water Supply Well construction must meet all requirements set forth in the *Mecklenburg County Groundwater Well Regulations* and any other applicable rules and laws.
- A North Carolina Certified Well Contractor must perform the well construction activities.
- The permitted Water Supply Well shall be located in accordance with the attached SITE PLAN.
- Any alteration of the site (including location of structures and appurtenances) or modification in use of the well, may subject this Permit to revocation.
- The Department will collect an initial sample of water from the Water Supply Well and analyze the sample for total coliform bacteria, nitrate, and nitrite. A review of the analysis by the Department must find the sample to meet the groundwater quality standards specified in the Mecklenburg County Groundwater Well Regulations **BEFORE the Water Supply Well can be placed into service**.
- The Department will collect an initial sample of water from the Water Supply Well and analyze the sample for Arsenic, Barium, Cadmium, Chromium, Copper, Fluoride, Lead, Iron, Magnesium, Manganese, Mercury, Silver, Sodium, Zinc, and pH.
- This Permit shall be VALID for a period not to exceed 12 months from the date of issuance.

Specific Conditions of This Permit (Check all that apply):

☐ Grout must be placed the full extent of the casing. ☐ Casing to bedrock

☐ Initial water sample to be taken and analyzed for (check all that apply):

☐ Volatile Organic Compounds (VOC's) ☐ Semi-volatile Compounds ☐ Metals (Specify in Other Conditions)
☐ Pesticides ☐ Herbicides ☐ Other (See Below)

The analysis must be approved prior to the Water Supply well being placed in service.

Other Conditions of This Permit:

Heather Ray
Authorized Agent: Print Name

Signature:

Owner/Legal Agent: Print Name

Signature:

Mecklenburg County Health Department
Groundwater & Wastewater Services
3205 Freedom Dr., Suite 8000
Charlotte, NC 28202
Phone: (980) 314-1680
Fax: (704) 336-6894

PERMIT TO CONSTRUCT A WATER SUPPLY WELL

Permit #: 10013970 **File #:** 20188 **Tax Parcel #:** 017-301-41
Property Owner: VICTOR JUAREZ LOPEZ
Job Location Address: 11927 SWANSBORO LN
City/ETJ: HUNTERSVILLE **State:** NC **Zip Code:** 28078
Permit Issuance Date: 7/11/2023
Use of Well: Potable
Type of Facility Served by Well: House

Area of Regulated Groundwater Usage Review: NO

General Conditions of This Permit:

- Water Supply Well construction must meet all requirements set forth in the *Mecklenburg County Groundwater Well Regulations* and any other applicable rules and laws.
- A North Carolina Certified Well Contractor must perform the well construction activities.
- The permitted Water Supply Well shall be located in accordance with the attached SITE PLAN.
- Any alteration of the site (including location of structures and appurtenances) or modification in use of the well, may subject this Permit to revocation.
- The Department will collect an initial sample of water from the Water Supply Well and analyze the sample for total coliform bacteria, nitrate, and nitrite. A review of the analysis by the Department must find the sample to meet the groundwater quality standards specified in the Mecklenburg County Groundwater Well Regulations **BEFORE the Water Supply Well can be placed into service**.
- The Department will collect an initial sample of water from the Water Supply Well and analyze the sample for Arsenic, Barium, Cadmium, Chromium, Copper, Fluoride, Lead, Iron, Magnesium, Manganese, Mercury, Silver, Sodium, Zinc, and pH.
- This Permit shall be VALID for a period not to exceed 12 months from the date of issuance.

Specific Conditions of This Permit (Check all that apply):

☐ Grout must be placed the full extent of the casing. ☐ Casing to bedrock

☐ Initial water sample to be taken and analyzed for (check all that apply):

☐ Volatile Organic Compounds (VOC's) ☐ Semi-volatile Compounds ☐ Metals (Specify in Other Conditions)
☐ Pesticides ☐ Herbicides ☐ Other (See Below)

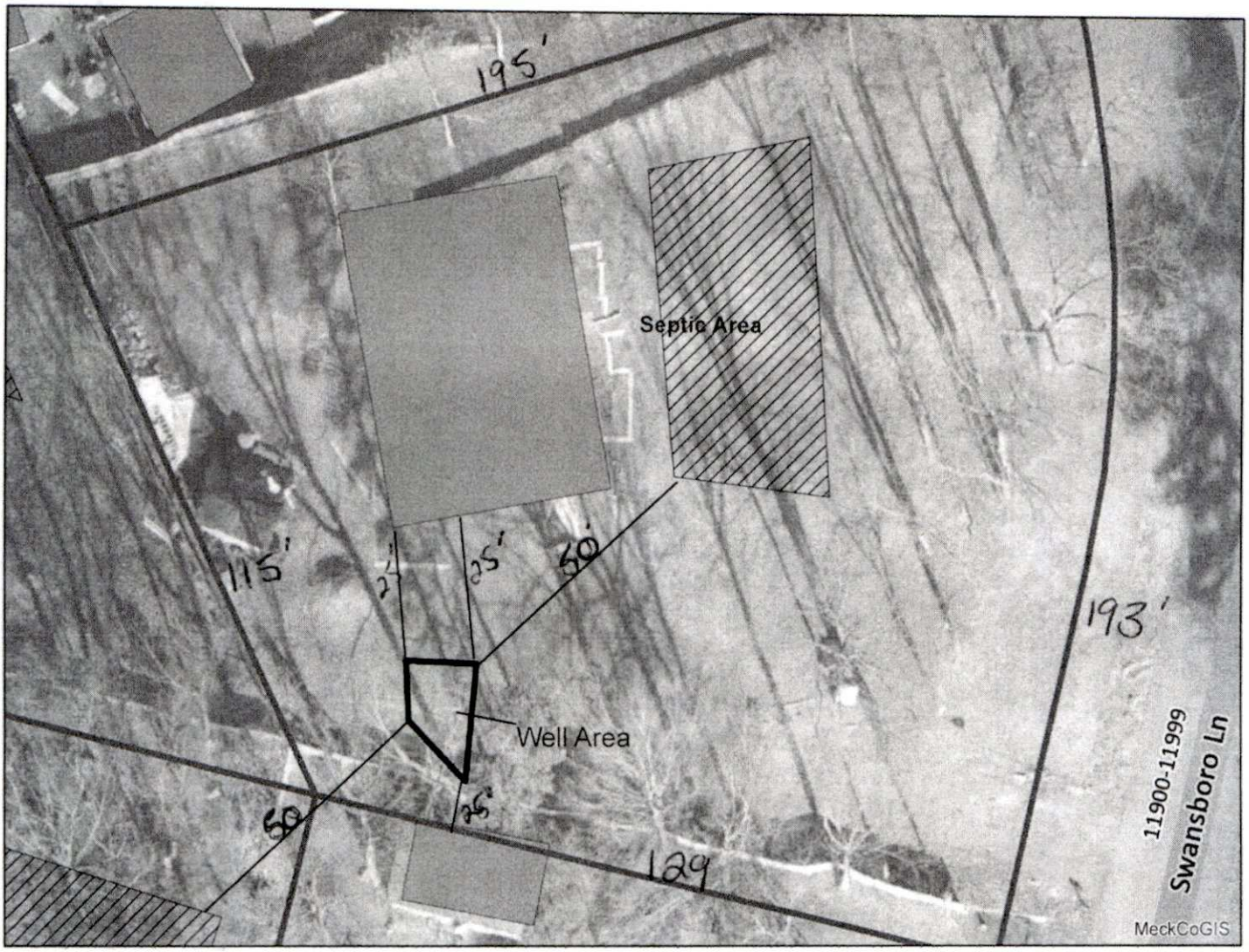
The analysis must be approved prior to the Water Supply well being placed in service.

Other Conditions of This Permit:

Heather Ray
Authorized Agent: Print Name
Signature:

Victor Juarez Lopez
Owner/Legal Agent: Print Name
Victor Juarez Lopez
Signature

Permitted Well Location Area(s) Diagram



Mecklenburg County Health Department
Environmental Health - Groundwater and Wastewater Services

Permit #: 10013970
PID #: 017-301-41
File #: 20188

Well shall be sited according to Mecklenburg County Groundwater Well Regulations including but not limited to:

- 10' from property boundaries (unless otherwise noted)
- 25' from building perimeters, including any attached sturctures
- 50' from other potential source of contamination
- 50' from private lateral sewer lines
- 50' from surface water bodies
- 100' from sanitary sewer lines, septic tanks, drainfields and repair and shall not be located in any easement or right-of-way (unless otherwise noted).

Authorized Agent: _____ Date: 07-11-23

Owner/ Legal Agent: Victor Granados Date: ~~07/14/2023~~

N

1 inch = 30 feet

Permitted Well Location Area(s) Diagram



Mecklenburg County Health Department
Environmental Health - Groundwater and Wastewater Services

Permit #: 10013970
PID #: 017-301-41
File #: 20188

Well shall be sited according to Mecklenburg County Groundwater Well Regulations including but not limited to:

- 10' from property boundaries (unless otherwise noted)
- 25' from building perimeters, including any attached sturctures
- 50' from other potential source of contamination
- 50' from private lateral sewer lines
- 50' from surface water bodies
- 100' from sanitary sewer lines, septic tanks, drainfields and repair and shall not be located in any easement or right-of-way (unless otherwise noted).

Authorized Agent: _____ Date: 07-11-23

Owner/ Legal Agent: _____ Date: _____

1 inch = 30 feet

Mecklenburg County
Groundwater & Wastewater Services
3205 Freedom Dr., Suite 8000
Charlotte, NC 28208
Phone: (980) 314-1680 FAX: (704) 336-6894

CERTIFICATE of COMPLETION for a WATER SUPPLY WELL

Permit #: 10013970 File #: 20188 Tax Parcel #: 01730141

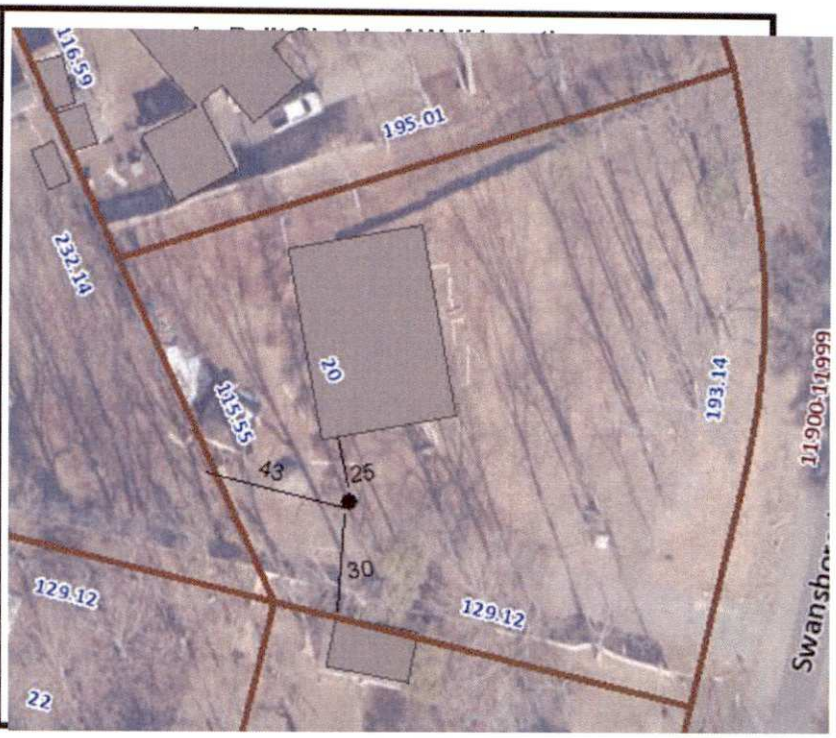
Well Location Address: 11927 SWANSBORO LN

City: HUNTERSVILLE State: NC Zip Code: 28078

Well Information
Well Type: Drinking Water
Well Status: Active
Install Date: 12/4/2023
Well Depth: 525 feet
Casing Depth: 43 feet
Diameter: 6 inches
Yield – GPM: 1
Static Water Level: 40 feet (below land surface)
Level Date: 12/4/2023
X-Coordinate: 1442039.00(NC Grid)
Y-Coordinate: 600273.00(NC Grid)

Well Contractor Information
Well Contractor: Advanced Well Drilling
Certification #: 4521a
Registration #:

Well Inspection Dates
Permit Issued: 7/11/2023
Grout Inspection: 2/28/2024
☐ Contractor certification for grouting not witnessed by GWS
Well Head Inspection: 2/28/2024



The undersigned has inspected the well described above and certifies that construction has been completed, a well construction form (GW-1a) has been received, and inspections have been completed in accordance with 15A NCAC 02C. This document is issued subject to those restrictions and conditions shown on the original permit and the provisions of 15A NCAC 02C .0300. This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would modify the required setbacks for the well.

☑ Required water samples have been collected. The lab results are included for your review.

☐ Required water samples have been collected however GWS has not received all lab results at this time. The lab results available are included for your review.

Registered Environmental Health Specialist: Heather Ray (Print)

(Sign)

Certificate of Completion Issuance Date: 4/24/2024

The State of North Carolina
DEPARTMENT OF HEALTH AND HUMAN SERVICES
Results from the NCDHHS Be Well Informed Guide
Created Apr 10, 2024

Information provided in this report is for informational purposes only and should not be substituted for direct consultation with a qualified water treatment professional. Other conditions or factors related to your well or home not considered by this online guide may determine the most appropriate water treatment option.

About the Results

Based on what you entered from your laboratory report, the Results Summary below indicates whether your water meets NC DPH drinking water goals. These drinking water goals are often referred to as "limits" on your laboratory report. If your water exceeds or is approaching these drinking water limits for the contaminant(s) entered, additional health information and treatment options will be shown. **Several contaminants, such as magnesium and potassium, do not have established drinking water goals.**

Results Summary

Key

✓ Meets the Drinking Water Limit
✗ Above the Drinking Water Limit
! Close to the Drinking Water Limit
● Consult NCDHHS Private Wells: Frequently Asked Questions about Testing

Result	Element	Your Entry	Limit	About Your Well Water
✓	Arsenic	0.001 mg/L	0.01 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Barium	0.1 mg/L	2 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Cadmium	0 mg/L	0.005 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Chloride	5 mg/L	250 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Chromium	0.02 mg/L	0.1 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Copper	0.01 mg/L	1.3 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Fluoride	0.1 mg/L	4 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Hardness	102 mg/L	-	There is no NC DPH drinking water goal for water hardness.
✓	Iron	0.11 mg/L	0.3 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Lead	0.003 mg/L	0.015 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Manganese	0.023 mg/L	0.05 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Mercury	0 mg/L	0.002 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Nickel	0.01 mg/L	0.1 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Nitrate-N	0.05 mg/L	10 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Nitrite-N	0.05 mg/L	1 mg/L	The value entered meets the NC DPH drinking water goal.
	pH	7.7 unit	6.5-8.5 standard units	See your results for lead and copper.
✓	Selenium	0.005 mg/L	0.05 mg/L	The value entered meets the NC DPH drinking water goal.
!	Silver	0.01 mg/L	0.02 mg/L	The value entered meets the NC DPH drinking water goal but is near the limit of 0.02 mg/L.

Result	Element	Your Entry	Limit	About Your Well Water
	Beryllium		0.004 mg/L	
	Boron		0.7 mg/L	
	Cobalt		1 µg/L	
✓	Cadmium	0 mg/L	0.005 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for cadmium. [https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic]? Your water meets the NC DPH drinking water goal for cadmium.

Health Concerns:

Can consuming water containing cadmium affect my health? Cadmium is not considered an essential element, meaning your body does not require it. Drinking high levels of cadmium over short periods can lead to: vomiting and diarrhea. Drinking cadmium over long periods may lead to fragile bones, kindey and lung damage.

✓	Chloride	5 mg/L	250 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Chromium	0.02 mg/L	0.1 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for chromium. [https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic]? Your water meets the NC DPH drinking water goal if it contains less than 0.1 mg/L of chromium.

Health Concerns:

Can consuming water containing chromium affect my health? Chromium (III) is an essential element, meaning your body requires it in small quantities. It helps the body use sugar, proteins, and fat but is poorly absorbed. Chromium toxicity is mainly attributed to another form of chromium, Chromium (VI), also known as hexavalent chromium.

✓	Copper	0.01 mg/L	1.3 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for copper [https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic]? Yes, your water meets the NC DPH drinking water goal as it contains less than 1.3 mg/L of copper.

Health Concerns:

Can consuming water containing copper affect my health? Consuming water containing less than 1.3 mg/L of copper is not harmful to most people. However, if you or someone in your household has Wilson's Disease, you should talk with your doctor about the level of copper in your water. The presence of copper in your water may also indicate that other pollutants, such as lead, may be present in your water.

Treatment Options:

What should I do? If you haven't already done so, you should also test your water for lead, which can cause serious health problems, especially for babies, children, and pregnant women.

✓	Fluoride	0.1 mg/L	4 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for fluoride [https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic]? Yes, your water meets the NC DPH drinking water goal as it contains less than 4.0 mg/L of fluoride.

Health Concerns:

Result	Element	Your Entry	Limit	About Your Well Water
✓	Sodium	13.9 mg/L	20 mg/L	The value entered meets the NC DPH drinking water goal if it is less than 20 mg/L
✓	Sulfate	43 mg/L	250 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Zinc	0.05 mg/L	1 mg/L	The value entered meets the NC DPH drinking water goal.
✓	E. coli	absent	0 CFU/100 mL or Absent	The value entered meets the NC DPH drinking water goal.
✓	Total Coliform	absent	0 CFU/100 mL or Absent	The value entered meets the NC DPH drinking water goal.
●	Gross Alpha		15 pCi/L	Test your water.
●	Radon		4000 pCi/L	Test both the air in your home and in your water for radon.
●	Uranium		0.03 mg/L	Test your water. Groundwater uranium is generally found in the geologic areas known as the Raleigh Belt, Carolina Slate Belt, and the Charlotte and Milton belts.

Water Treatment Systems That Remove Silver

The water treatment is based on the water quality information you entered. Details concerning water treatment are below.

Treatment Order

Print this report and make final water treatment decisions with a qualified water treatment professional.

More Information about selecting appropriate water treatment devices is availablefrom NSF.

More Information is available from NHDES and US EPA

Results Details

Key

✓ Meets the Drinking Water Limit

✗ Above the Drinking Water Limit

! Close to the Drinking Water Limit

● Consult NCDHHS Private Wells: Frequently Asked Questions about Testing

Result	Element	Your Entry	Limit	About Your Well Water
●	Aluminum		0.2 mg/L	
●	Antimony		0.006 mg/L	
✓	Arsenic	0.001 mg/L	0.01 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Barium	0.1 mg/L	2 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the drinking water goal for barium. [https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic]? Your water meets the NC DPH drinking water goal if it contains less than 2 mg/L of barium.

Health Concerns:

Can consuming water containing barium affect my health? Barium is not considered an essential element, meaning your body does not require it. Drinking high levels of bariumm over short periods can lead to: vomiting, stomach cramps, changes in blood pressure, and muscle weakness. Higher levels of barium can cause changes in heart rhythm or paralysis and death. Drinking barium over long perdiods may lead to kidney damage, weight loss and death.

Result	Element	Your Entry	Limit	About Your Well Water
	Can consuming water containing fluoride affect my health? Consuming water containing an optimal level of fluoride helps protect against tooth decay. The U.S. Department of Health and Human Services' recommended optimal range for fluoride in drinking water is 0.6 - 0.8 mg/L. Since your water contains less than the optimal level, you should talk with your dentist and doctor about the level of fluoride in your water and ask whether fluoride supplements or treatments are right for you or your family. Click here [http://www.cdc.gov/fluoridation/faqs/wellwater.htm] for more information from the U.S. Centers for Disease Control and Prevention about private well water and fluoride.			
✓	Hardness	102 mg/L	-	There is no NC DPH drinking water goal for water hardness.
○	Hexavalent Chromium		0.07 µg/L	
✓	Iron	0.11 mg/L	0.3 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Lead	0.003 mg/L	0.015 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Manganese	0.023 mg/L	0.05 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for manganese [https://www.epa.gov/sdwa/secondary-drinking-water-standards-guidance-nuisance-chemicals]? Yes, your water meets the NC DPH drinking water goal.

Health Concerns:

Can consuming water containing manganese affect my health? Consuming water containing less than 0.3 mg/L of manganese is not harmful to your health.

Elevated levels of manganese can cause a metallic taste, bad smell, rusty-colored water, mineral deposits or sedimentation, or brown or black staining on laundry or surfaces that come in contact with the water. None of these effects poses a health risk.

Elevated levels of iron or manganese (commonly found together in water wells) may also cause the growth of iron or manganese bacteria, which produce a slime that can clog filters and plumbing. Although these bacteria can make water unappealing and cause a bad taste or smell, there is no health risk associated with them.

✓	Mercury	0 mg/L	0.002 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for mercury. [https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic]? Your water meets the NC DPH drinking water goal if it contains less than 0.002 mg/L of mercury.

Health Concerns:

Can consuming water containing mercury affect my health? Mercury can negatively affect the kidneys and nervous system, causing kidney damage, tremors, impaired vision and impaired memory.

○	Molybdenum		0.018 mg/L	
✓	Nickel	0.01 mg/L	0.1 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for nickel [https://deq.nc.gov/media/28963/download?attachment]? Your water meets the NC DPH drinking water goal if it contains less than 0.1 mg/L of nickel.

Health Concerns:

Can consuming water containing nickel affect my health? Nickel is naturally abundant in the environment and can form many different compounds, many of which dissolve in water. However, it stronly binds to soil so large amounts are not expected to be found in groundwater. Eating or drinking large amounts have been shown to be associated with lung disease, as well as affect the stomach, blood, and immune system.

✓	Nitrate-N	0.05 mg/L	10 mg/L	The value entered meets the NC DPH drinking water goal.
✓	Nitrite-N	0.05 mg/L	1 mg/L	The value entered meets the NC DPH drinking water goal.

Result	Element	Your Entry	Limit	About Your Well Water
	pH	7.7 unit	6.5-8.5 standard units	See your results for lead and copper.
✓	Selenium	0.005 mg/L	0.05 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for selenium. [https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations#Inorganic]? Your water meets the NC DPH drinking water goal if it contains less than 0.05 mg/L of selenium.

Health Concerns:

Can consuming water containing selenium affect my health? Selenium is an essential element, meaning your body needs it in small quantities. However, drinking high levels of selenium may cause adverse health effects. Drinking high levels of short periods of time can lead to nausea, vomiting and diarrhea. Over long periods of time drinking high levels may lead to selenosis, a disease known for hair loss, brittle nails, and numbness of extremities.

!	Silver	0.01 mg/L	0.02 mg/L	The value entered meets the NC DPH drinking water goal but is near the limit of 0.02 mg/L.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for silver [https://deq.nc.gov/media/28963/download?attachment]? Your water meets the NC DPH drinking water goal if it contains less than 0.02 mg/L of silver.

Health Concerns:

Can consuming water containing silver affect my health? Silver is not an essential element, meaning your body does not need it. Drinking high levels of silver over long periods may lead to argyria, a condition known for blue-gray discoloration of skin, hair and internal organs.

Treatment Options:

How can I reduce the level of silver in my water? You can install a treatment system to reduce the levels of silver in your private well. Treatment systems that reduce the levels of silver in your well water include: anion exchange, distillation and reverse osmosis. You can also reduce your exposure by using bottled water or connecting to a public water supply, if possible. More information about treatment for silver can be found in How to select a well-water treatment system [https://epi.dph.ncdhhs.gov/oee/docs/HowtoSelectaWellWaterTreatmentSystemforYourHome.pdf].

✓	Sodium	13.9 mg/L	20 mg/L	The value entered meets the NC DPH drinking water goal if it is less than 20 mg/L

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for sodium [https://www.epa.gov/sites/default/files/2014-09/documents/support_cc1_sodium_dwreport.pdf]? Your water meets the NC DPH drinking water goal if it contains less than 20 mg/L of sodium.

Health Concerns:

Can consuming water containing sodium affect my health? Consuming water containing sodium is not harmful to your health. However, if your water contains more than 20 mg/L of sodium and you or someone in your household is on a low-salt diet, you should talk with your doctor about the level of sodium in your water. The U.S. Environmental Protection Agency's guidance level of 20 mg/L for sodium in drinking water was developed for people restricted to a total sodium intake of 500 mg/day.

	Strontium		2.1 mg/L	
✓	Sulfate	43 mg/L	250 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for sulfate. [https://www.epa.gov/sdwa/secondary-drinking-water-standards-guidance-nuisance-chemicals]? Your water meets the NC DPH drinking water goal if it contains less than 250 mg/L of sulfate.

Health Concerns:

Result	Element	Your Entry	Limit	About Your Well Water
	Can consuming water containing sulfate affect my health? Drinking high levels of sulfate is not harmful, but the consumer will taste that the water has a salty presence. High levels could also produce a laxative effect to the consumer.			
○	Thallium		0.2 µg/L	
○	Vanadium		0.3 µg/L	
✓	Zinc	0.05 mg/L	1 mg/L	The value entered meets the NC DPH drinking water goal.

Interpretation of Results:

Does my well water meet the NC DPH drinking water goal for zinc [https://deq.nc.gov/media/28963/download?attachment]? Your water meets the NC DPH drinking water goal if it contains less than 1 mg/L of zinc.

Health Concerns:

Can consuming water containing zinc affect my health? Zinc is considered an essential element, meaning your body does need it in small amounts. However, drinking high levels of zinc may cause adverse health effects like stomach cramps, nausea and vomiting. Drinking high levels over long periods can cause anemia and reduced copper absorption.

✓	E. coli	absent	0 CFU/100 mL or Absent	The value entered meets the NC DPH drinking water goal.
✓	Total Coliform	absent	0 CFU/100 mL or Absent	The value entered meets the NC DPH drinking water goal.
○	Gross Alpha		15 pCi/L	Test your water.
○	Radon		4000 pCi/L	Test both the air in your home and in your water for radon.
○	Uranium		0.03 mg/L	Test your water. Groundwater uranium is generally found in the geologic areas known as the Raleigh Belt, Carolina Slate Belt, and the Charlotte and Milton belts.
○	Acetone		6000 µg/L	
○	Acrylonitrile		0.5 µg/L	
○	Benzene		1 µg/L	
○	Bromobenzene		60 µg/L	
○	Bromochloromethane		7.7 µg/L	
○	Bromodichloromethane		0.6 µg/L	
○	Bromoform		4 µg/L	
○	Bromomethane		10 µg/L	
○	2-Butanone		4000 µg/L	
○	n-Butylbenzene		70 µg/L	
○	sec-Butylbenzene		70 µg/L	
○	tert-Butylbenzene		70 µg/L	
○	Carbon Disulfide		700 µg/L	
○	Carbon Tetrachloride		0.5 µg/L	
○	Chlorobenzene		100 µg/L	
○	Chloroethane		3000 µg/L	
○	Chloroform		70 µg/L	
○	Chloromethane		3 µg/L	
○	2-Chlorotoluene		100 µg/L	
○	4-Chlorotoluene		100 µg/L	

Result	Element	Your Entry	Limit	About Your Well Water
	Dibromochloromethane		0.5 µg/L	
	1,2-Dibromo-3-chloropropane		0.04 µg/L	
	Dibromoethane (1,2-)		0.02 µg/L	
	Dibromomethane		70 µg/L	
	1,2-Dichlorobenzene		600 µg/L	
	1,4-Dichlorobenzene		6 µg/L	
	1,1-Dichloroethane		6 µg/L	
	1,2-Dichloroethane		0.5 µg/L	
	1,1-Dichloroethene		7 µg/L	
	(cis 1,2)-Dichloroethene		6 µg/L	
	(trans 1,2)-Dichloroethene		100 µg/L	
	Dichlorofluoromethane		1000 µg/L	
	1,2-Dichloropropane		0.6 µg/L	
	(cis 1,3)-Dichloropropene		0.5 µg/L	
	(trans 1,3)-Dichloropropene		0.5 µg/L	
	Ethylbenzene		700 µg/L	
	2-Hexanone		40 µg/L	
	Isopropyl Ether		70 µg/L	
	Methylene Chloride		5 µg/L	
	4-Methyl-2-pentanone		100 µg/L	
	Methyl tert-butyl ether		20 µg/L	
	Naphthalene		100 µg/L	
	Styrene		100 µg/L	
	1,1,1,2-Tetrachloroethane		1 µg/L	
	1,1,2,2-Tetrachloroethane		0.5 µg/L	
	Tetrahydrofuran		6300 µg/L	
	Tetrachloroethene		µg/L	
	Toluene		600 µg/L	
	1,2,3-Trichlorobenzene		6 µg/L	
	1,2,4-Trichlorobenzene		70 µg/L	
	1,1,1-Trichloroethane		200 µg/L	
	1,1,2-Trichloroethane		0.6 µg/L	
	Trichloroethylene		1 µg/L	
	Trichlorofluoromethane		2000 µg/L	
	1,2,3-Trichloropropane		0.005 µg/L	

Result	Element	Your Entry	Limit	About Your Well Water
	Vinyl chloride		0.03 µg/L	
	Xylenes		1000 µg/L	

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: **Environmental Health**

MECKLENBURG CO ENVIRONMENTAL HEALTH
3205 Freedom Drive
CHARLOTTE, NC 28208

Name of System:

GWO 99685

EIN: 566000319EH **Delivery:** **NC Courier**

StarLiMS ID: **ES240305-0032**
Date Collected: 02/28/2024 Time Collected: 12:15 By: Heather Ray
Date Received: 03/05/2024 Time Received: 08:08

Sample Type: Raw
Sample Source: New Well
Sampling Point: Sample tap
Receipt Temp. :
Well Permit No.
GPS Number:

Profile: New Well - No Nitrate I

Analyte	Test Result	Allowable Limit	Unit	Qualifier(s)
Arsenic	0.001	0.010	mg/L	
Barium	<0.1	2.0	mg/L	
Cadmium	<0.0005	0.005	mg/L	
Calcium	35		mg/L	
Chloride	<5	250	mg/L	
Chromium	<0.02	0.10	mg/L	
Copper	<0.01	1.3	mg/L	
Fluoride	<0.1	4.00	mg/L	
Iron	0.110	0.300	mg/L	
Lead	<0.003	0.015	mg/L	
Magnesium	4		mg/L	
Manganese	0.023	0.05	mg/L	
Mercury	<0.0004	0.002	mg/L	
Nickel	<0.01	0.1	mg/L	
pH	7.7		N/A	
Selenium	<0.005	0.05	mg/L	
Silver	<0.01	0.10	mg/L	
Sodium	13.9		mg/L	
Sulfate	43.0	250	mg/L	
Total Alkalinity	82		mg/L	
Total Hardness	102		mg/L	
Zinc	<0.05	5.0	mg/L	

Report Date: 03/25/2024

Reported By:

Marc Komlos

CHARLOTTE WATER

Environmental Laboratory Services

Laboratory Analysis Report
Report Date: 03/04/2024 9:26

LOCATION: GWO-99685
LOC ID: G-NEW
SAMPLE DATE-TIME: 02/28/2024 12:15
SAMPLE DESCRIPTION: Grab

CHAIN OF CUSTODY #: 240228028

	Parameter	Result	Units	RL	Method	Start Date / Time		Analyst
Sample ID:	**AI92354**							
AI92354	E. Coli-PA (Colisure)	Absent	P/A		Colisure	02/28/2024	13:50	JPM
AI92354	Total Coliform- P/A (Colisure)	Absent	P/A		Colisure	02/28/2024	13:50	JPM
AI92354	Nitrate	<0.05	mg/L	0.05	EPA353.2-93	02/29/2024	14:48	ASH
AI92354	Nitrate/Nitrite	<0.05	mg/L	0.05	EPA353.2-93	02/29/2024	14:02	ASH
AI92354	Nitrite	<0.05	mg/L	0.05	EPA353.2-93	02/29/2024	14:48	ASH

Comment:

Eric W. Newell, Laboratory Supervisor: Eric W. Newell

The results contained in this report are specific to the samples listed above.

CHARLOTTE WATER-Environmental Laboratory Services
4222 Westmont Drive, Charlotte, North Carolina 28217
N.C. Certification 192, N.C.DHHS Certification 37417, EPA Cert 01215

CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT
ENVIRONMENTAL LABORATORY SERVICES

4222 Westmont Drive, Charlotte, NC 28217 (704) 336 - 2854 or (704) 622 - 7280
NC DENR Certification No. 192; NC DHHS Certification No. 37417; US EPA Certification No. 01215

CHARLOTTE.
CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT
CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT

CHAIN OF CUSTODY RECORD

COC #: 2402280028 PAGE OF

CLIENT: Mecklenburg County, LUESA - Groundwater & Wastewater Services	Send REPORT To: Heather Ray, 3205 Freedom Drive, Charlotte, NC 28202	Send INVOICE To: Jeremy Michael, 3205 Freedom Dr, Charlotte, NC 28202	Sampled By (Print Name): Heather ray
FACILITY: Groundwater (POTABLE WATER)			Witnessed By (Print & Sign Name - If Applicable):
ADDRESS: 11927 SWANSBORO LN HUNTERSVILLE			
LAB CODE: (circle one) REAL PRIV (NEW) TNC MPL PME AMB LM OTHER			

Sample ID	Sample Collector's Initials	Sample Collection: Begin Date / Time	Sample Collection: End Date / Time	Chlorinated System: (Y/N)	Sample Temperature: Collection Temp, °C	Sample Temperature: Receipt Temp, °C	Sample Type: Depth Composite	Sample Type: Auto Composite	Sample Type: Hand Composite	Sample Type: Grab	Sample Containers: Plastic	Sample Containers: Glass	Sample Containers: # of Containers	Chemical Preservative: None	HNO3	H2SO4	NaOH	HCl	Na2S2O3	Indicate pH of Preserved Sample	Analyses: Nitrate	Nitrite	Total Coliform - P/A	E. coli - P/A	Pesticides 8081	VOC EPA 524	LAB USE ONLY LABORATORY SAMPLE ID
GWO-99685	HR	2/28/2024 12:15 PM	N/A	N	15.5	7.0				X	250 ml		1			X				<2	X						AI 92354 A
			N/A	N		7.0				X	250 ml		1	X								X					B
			N/A	N		7.1				X	100 ml		1						X				X	X			C
			N/A																								
			N/A																								
			N/A																								
			N/A																								
			N/A																								

Instructions: Complete all yellow shaded areas. Blue areas are for LAB USE ONLY.
For each parameter requested, circle the "x" to verify your request.
Nutrients include: Nitrate/Nitrite, TKN, Total Phosphours, Ammonia
Itemize Metals Here:
For Composite samples, record the autosampler BEGIN and END date/time.
For Grab samples, record the collection time as the BEGIN date/time only.
Comments: ***3-DAY TAT REQUESTED***

Relinquished by: (Signature)	Received by: (Signature)	Date:	Military Time:
[signature]	[signature]	02-28-24	1324
Relinquished by: (Signature)	Received by: (Signature)	Date:	Military Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Military Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Military Time:

Form Revision 08; Effective April 1, 2012

Lab Codes: REAL = Real Estate; PRIV = Private Well; NEW = New Permitted Well; TNC = Transient Non-Community; AMB = Ambient; LM = Landfill

CHARLOTTE WATER - Environmental Laboratory Services

Sample Receipt Checklist

Completed by Initials: SG Date/Time: 02-28-24 / 1324 COC#: 240228028

Sample Matrix: ☐ Wastewater ☑ Drinking Water ☐ *Crypto/Giardia* (LT2) ☐ Other: _____
☐ Field Analysis/Information Only (No cooler)

Custody Seal(s) Intact?:	☐ Yes	☐ No	☑ N/A	Type of Ice Used:	☑ Wet	☐ Blue
Cooler Intact:	☑ Yes	☐ No	☐ N/A		☐ Dry Ice	☐ None
Shipping Container Intact:	☐ Yes	☐ No	☑ N/A			

Thermal Preservation: *Sample Temperature measured immediately after removal from cooler.
*Notify management immediately of any sample that did not meet temperature requirements or frozen.
***If multiple parameters, in additional to BacT are collected for a site, a receipt temperature for the BacT plus another bottle must be measured and recorded on the COC.**

Requirements: DW: ≤ 6°C WW: ≤ 6°C BacT: ≤ 10°C LT2 Crypto/Giardia: ≤ 20°C LT2 E. coli: ≤ 10°C

Do sample receipt temperatures meet requirements (including requirement by downward trend)? ☑ Yes ☐ No, explain below.
Downward trend required to meet requirement? ☑ Yes

* At time of receipt into the laboratory, the allowed downward trend may be applied to meet temperature requirement. Initial temperature from the sample collector becomes critical. If samples are received next day, receipt temperatures must meet requirements listed above.

Chemical Preservation: Note: ***If samples are not preserved correctly, notify Personnel. Do not check BacT, TOC, VOA, THM and HAA.**
All containers needing preservation are found to be in EPA compliance? ☑ Yes ☐ No ☐ N/A
If no, explain. _____

*If the pH of a metals (excluding Hg) is incorrect, these steps are followed:
1. On COC, document sample pH prior to adding additional preservative.
2. Document "pH NOT MET" on container.
Date/time of preservation will be captured on the lid, when additional HNO3 Acid is added to achieve pH < 2. No comment in LIMS required.

*If the pH of any other chemically preserved sample is incorrect (not including metals), follow these steps:
1. Notify immediately of sample incorrectly preserved. Qualify sample not properly preserved on the COC and in LIMS.

Option: Substitute a correctly preserved bottle. Document on COC & notify personnel. Write "DO NOT USE" on the incorrectly preserved bottle. No comment in LIMS requires when a sample with correct preservative is substituted.

COC Properly Filled Out? ☑ Yes ☐ No If no, explain. _____

COC Correction sent to Project Manager? ☐ Yes ☐ No ☑ N/A

Do sample labels agree with the COC? ☑ Yes ☐ No If no, explain. _____

All sample bottles accounted for? ☑ Yes ☐ No **Samples Arrived within Hold Time?** ☑ Yes ☐ No, & notify Project Mgr.

Correct Bottles Used? ☑ Yes ☐ No

VOA Vials have Zero Headspace (< 6 mm)? ☐ Yes ☐ No ☑ N/A *Bubbles should be no larger than: 
If no, notify Laboratory Section Supervisor.

Short Hold Analyses (< 48 hrs.)? ☑ Yes ☐ No **Rush Turn Around Time (TAT)?** ☐ Yes ☑ No
If yes, notify Laboratory Section(s). If yes, notify Project Manager

Addition Information/Comments: Samples were received in a ziploc bag. All wet ice was bagged in a seperate bag SG 02-28-24

Preliminary COC Review (Optional): Initials: _____ Date: _____