NRO WATER PLANT

WATER QUALITY
&
CONTAMINANT ANALYSES

JULY 2019 REGIONAL WATER SYSTEM LEAD & COPPER TESTING

30 Samples

Lead: System 90th Percentile Level: < 3 ppb (15 ppb max level)

Copper: System 90th Percentile Level: 150 ppb (1300 ppb max level)

INORGANIC CHEMICAL ANALYSIS

June 2, 2020

Name	*Required Reporting Limit (RRL)*	*NOT Detected Above RRL*	*Quantified Results*	*Allowable Limits*
Arsenic, mg/l	0.005	X		0.010
Barium, mg/l	0.400	X		2.000
Cadmium, mg/l	0.001	X		0.005
Chromium, mg/l	0.020	X		0.100
Cyanide, mg/l	0.050	X		0.200
Fluoride, mg/l	0.100		0.800	4.000
Iron, mg/l	0.060	X		0.300
Manganese, mg/l	0.010	X		0.050
Mercury, mg/l	0.0004	X		0.002
Nickel, mg/l	0.100	X		N/A
Selenium, mg/l	0.010	X		0.050
Sodium, mg/l	1.000		70.7	N/A
Sulfate, mg/l	15.000	X		250.0
Antimony, mg/l	0.003	X		0.006
Beryllium, mg/l	0.002	X		0.004
Thallium, mg/l	0.001	X		0.002
pH, units	N/A		7.7	6.50-8.50

Analysis is run every three years

NITRATE ANALYSIS

January 2022

Name	Required Reporting Limit (R.R.L.)	NOT Detected Above the R. R. L.	Allowable Limits
Nitrate, mg/l	1.00 mg/l	**X**	10.00

Analysis is run every year.

RADIOLOGICAL ANALYSIS

June 2020

Name	Required Reporting Limit (RRL)	NOT Detected (i.e. < RRL) (X)	Quantified Results	Allowable Limit
Gross ALPHA (pCi/L)	3.00 pCi/L	X		15.00 pCi/L
Uranium	0.67 pCi/L	X		20.10 pCi/L
Radium 226	1.00 pCi/L	X		3.00 pCi/L
Radium 228	1.00 pCi/L	X		2.00 pCi/L
Gross BETA (pCi/L)	4.00 pCi/L	X		50.00 pCi/L

Analysis is run every nine years

PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS ANALYSIS

June 2, 2020

Contaminant	Required Reporting Limit (R.R.L.)	Not Detected (x) (i.e. < R.R.L.)	Quantified Results	Allowable Limits
Endrin, mg/l	0.00001	X		0.002
Liindane	0.00002	X		0.0002
Methoxychlor, mg/l	0.0001	X		0.04
Toxaphene, mg/l	0.001	X		0.003
Dalapon, mg/l	0.001	X		0.20
Di(2-ethylhexyl)adipate, mg/l	0.0006	X		0.40
Oxamyl (vydate), mg/l	0.002	X		0.20
Simazine, mg/l	0.00007	X		0.004
Di(2-ethylhexyl)phthalate	0.0006	X		0.500
Dicloram, mg/l				
Dinoseb, mg/l	0.0002	X		0.007
Hexachlorocyclopentadiene, mg/l	0.0001	X		0.050
Carbofuran, mg/l	0.0009	X		0.04
Atrazine, mg/l	0.0001	X		0.003
Alachlor, mg/l	0.0002	X		0.002
Heptachlor, mg/l	0.00004	X		0.0004
Heptachlor Epoxide, mg/l	0.00002	X		0.0002
2,4-D, mg/l	0.0001	X		0.07
2,4,5-TP (Silvex), mg/l	0.0002	X		0.05
Hexachlorobenzene, mg/l	0.0001	X		0.001
Benzo(a)pyrene, mg/l	0.00002	X		0.002
Pentachlorophenol, mg/l	0.00002	X		0.0002
PCB's, mg/l	0.00004	X		0.001
DBCP, mg/l	0.0001	X		0.0005
Ethylene Dibromide (EDB), mg/l	0.00002	X		0.0002
Chlordane, mg/l	0.00001	X		0.00005
	0.0002	X		0.002

Analysis is run every three years

VOLATILE ORGANIC CHEMICAL ANALYSIS

June 2020

Contaminant	Required Reporting Limit (RRL) (mg/L)	Not Detected Above RRL (x)	Quantified Results	Allowable Limits
1,2,4-Trichlorobenzene, mg/l	0.0005	X		0.07
Cis-1,2-Dichloroethylene, mg/l	0.0005	X		0.07
Xylenes (Total), mg/l	0.0005	X		10.00
Dichloromethane, mg/l	0.0005	X		0.005
o-Dichlorobenzene, mg/l	0.0005	X		0.600
p-Dichlorobenzene, mg/l	0.0005	X		0.075
Vinyl Chloride, mg/l	0.0005	X		0.002
1,1-Dichloroethylene, mg/l	0.0005	X		0.007
Trans-1,2-Dichlorethylene, mg/l	0.0005	X		0.100
1,2-Dichloroethane, mg/l	0.0005	X		0.005
1,1,1-Trichloroethane, mg/l	0.0005	X		0.200
Carbon Tetrachloride, mg/l	0.0005	X		0.005
1,2-Dichloropropane, mg/l	0.0005	X		0.005
Trichloroethylene, mg/l	0.0005	X		0.005
1,1,2-Trichloroethane, mg/l	0.0005	X		0.005
Tetrachloroethylene, mg/l	0.0005	X		0.005
Chlorobenzene, mg/l	0.0005	X		0.100
Benzene, mg/l	0.0005	X		0.005
Toluene, mg/l	0.0005	X		1.000
Ethylbenzene, mg/l	0.0005	X		0.700
Sytrene, mg/l	0.0005	X		0.100

Analysis is run every three years.

TOTAL TRIHALOMETHANES (TTHMs) & HALOACETIC ACID (HAA_5) ANALYSES

September 2022

TTHM

Allowable limit is 0.080 mg/l

Sample Sites	*mg/l*
NC Hwy 12, Duck	0.019
Kitty Hawk Rd., Kitty Hawk	0.008
Hwy 158, Nags Head	0.042
Driftwood Drive, Manteo	0.037

See next page for the Trihalomethane (THM) Fact Sheet (Questions and Answers)

HAA_5

Allowable limit is 0.060 mg/l

Sample Sites	*mg/l*
NC Hwy 12, Duck	0.002
Kitty Hawk Rd., Kitty Hawk	<0.002
Hwy 158, Nags Head	0.011
Driftwood Drive, Manteo	0.009

Analyses are run every year.

TRIHALOMETHANE (THM) FACT SHEET

(Prepared by the AWWA (American Water Works Association))

What are trihalomethanes (THMs)?

THMs and other disinfection by-products are formed when disinfectants such as chlorine - used to control disease-causing contaminants in drinking water - react with naturally occurring organic matter in the source water. The primary trihalomethanes of concern are:

Chloroform Dibromochloromethane
Bromodichloromethane Bromoform

What are THMs in the drinking water?

THMs are result of disinfecting water, which is essential for protecting consumers for life threatening diseases. The health risks from THMs are extremely small compared to risks associated with inadequate disinfection. It is important, therefore, that disinfection not be compromised in an attempt to decrease such by-products.

How do you know if there are THMs in drinking water?

THMs may be present in most drinking waters, including some bottled and home filtered water. To find out if THMs are in your tap water, call your local water utility. For bottled water and home filtered water, check on the label or call the manufacturers. Consumers can also test their own water for THMs by consulting a pre-approved, authorized laboratory in their state. For a listing of these laboratories, call the Environmental Protection Agency (EPA) Drinking Water Hotline (1-800-426-4791).

Are THMs monitored or regulated?

Yes. The EPA currently regulates trihalomethanes by imposing a maximum allowable level in drinking water of 100 parts per billion on the average. To reduce potential exposure, EPA has proposed to lower that level in the future to an average of 80 parts per billion.

What about pregnant women. Should they be concerned?

Women in the early stages of pregnancy may wish to consult their physicians for advice. However, health officials who reviewed the THM study agreed that in general they do NOT advise women in early pregnancy to stop drinking water from public supplies.

How can THM exposure be minimized?

THM levels in tap water can be minimized by boiling it for one full minute and letting it cool before drinking or by using a home treatment device that is officially certified by the NSF International as effective to remove THMs.

Where can you get more information?

If you have questions about disinfection by-products, trihalomethanes or any other drinking water subjects, please feel free to call the Dare County Water Department at (252) 475-5990 or (888) 998-9283 or e-mail water@darenc.com. The EPA Drinking Water Hotline (1-800-426-4791) is also available to answer questions on this subject and other water related subjects. This hotline operates from 9:00 am to 5:00 pm EST, Monday-Friday. Brochures and other materials can be requested through the hotline. Additionally the Office of Ground Water and Drinking Water at EPA maintains a website with much useful information on drinking water. The address is http://water.epa.gov/drink/index.cfm

Additional information can be obtained by accessing the American Water Works Association's web site at http://www.awwa.org.