

NEW CASTLE/STANWOOD CONSOLIDATED WATER SYSTEM

2016 WATER ANALYSIS

TABLE OF DETECTED CONTAMINANTS						
Contaminants (units)	Violation Yes or No	Date of Sample	MCL	New Castle Result 2016	MCLG	Major Sources in Drinking Water
Turbidity (at treatment plant)	No	Every 4 hours	0.3 NTU	0.034 NTU	n/a	Soil runoff, Turbidity is a measurement of the cloudiness of the water.
Turbidity (in distribution system)	No	1 per Day	5.0 NTU	0.050 NTU	n/a	Soil runoff, Turbidity is a measurement of the cloudiness of the water.
Inorganic Contaminants						
Fluoride (mg/L)	No	Every 4 hours	2.2	0.70 mg/L	n/a	Water additive which promotes strong teeth; erosion of natural deposits
Nitrate (mg/L)	No	10/31/2016	10	0.073 mg/L	10	Runoff from fertilizer use. Leaching from septic tanks; Erosion of natural deposits
Barium (ug/L)	No	10/31/2016	2000 ug/L	7.9 ug/L	2000	Erosion of natural deposits.
Chloride (mg/L)	No	10/31/2016	250 mg/L	10.4 mg/L	n/a	Erosion of natural deposits; Road salt
Cyanide (mg/L)	No	10/31/2016	0.2 mg/L	0.002 mg/L	n/a	Runoff from fertilizer use
Sodium (mg/L)	No	10/31/2016	N/A Levels are within HD Guidelines.	8.54 mg/L	n/a	Naturally occurring; road salt; water softeners; animal waste
Manganese (ug/L)	No	10/31/2016	300 ug/L	2.1 ug/L	n/a	Naturally occurring
Sulfate (mg/L)	No	10/31/2016	250 mg/L	4.22 mg/L	n/a	Erosion of natural deposits
Zinc (ug/L)	No	10/31/2016	5000 ug/L	<LOQ ug/L	n/a	Erosion of natural deposits
Gross Alpha (pCi/L)	No	10/15/2013	15	0.43 pCi/L	0	Decay of natural deposits, or man-made emissions.
Gross Beta (pCi/L)	No	10/15/2013	50	0.16 pCi/L	0	Decay of natural deposits, or man-made emissions.
Disinfection Byproducts						
TTHMs [Total - Trihalomethanes] (ppb) Highest Locational Running Annual Average and Range	No	Quarterly 2016	80 ug/L	16.2 3.90 - 23 ug/L	n/a	By-product of drinking water chlorination.
Haloacetic acids (ppb) Highest Locational Running Annual Average and Range	No	Quarterly 2016	60 ug/L	7.98 2.90 - 9.30 ug/L	n/a	By-product of drinking water chlorination.
Chlorine Residual (entry Point)	No	Every 4 hours	4 mg/L	1.15 mg/L	n/a	By-product of drinking water chlorination.
Chlorine Residual (distribution system)	No	1 x per Day	4 mg/L	0.82 mg/L	n/a	By-product of drinking water chlorination.
Miscellaneous Analytes						
Hardness (mg/L)	No	10/31/2016	n/a	24.0 mg/L	n/a	A combination of mineral constituents such as calcium and magnesium salts. 0-45 = soft water, 46-90 = soft to moderately hard, 91-130 = moderately hard to hard.
Alkalinity (mg/L)	No	10/31/2016	n/a	15.70 mg/L	n/a	A measure of the alkaline constituents of water, mostly bicarbonates.
Calcium	No	10/31/2016	n/a	7.47 mg/L	n/a	A measure of the alkaline constituents of water
pH (units)	No	10/31/2016	n/a	7.22 units	n/a	A measure of the intensity of the basic or acidic condition of a liquid. Neutral water is a pH of 7.
Total Dissolved Solids	No	10/31/2016	n/a	37.2 mg/L	n/a	A measure of dissolved solids in water.
Contaminant	Violation Yes or No	Date of Sample	Level Detected (Maximum) (Range)	Unit Measurement	Action Level	Likely Sources of Contamination
Lead	No	6/20/2016	<LOQ < LOQ - 10.6	ug/L	15.0 ug/L	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	No	6/22/2016	101 8.5 - 218	ug/L	1300 ug/L	Corrosion of household plumbing systems; Erosion of natural deposits.

1&2- Levels presented represent the 90th percentile of the 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of the distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead or copper values detected in our water system. In this case, 30 samples were collected in our water system and the 90th percentile value was the fourth highest value (<LOQ ug/L for lead and 101 ug/L for copper). The action level for lead (15 ug/L) was not exceeded and the action level (1300 ug/L) for copper was not exceeded in 2016.

LOQ = Limits Of Quantitation **pCi/L** = picocuries per liter (a measure of radioactivity) **NTU** = nephelometric turbidity units
MCLG = maximum contaminant goal **PPM** = parts per million or milligrams per liter (mg/L) **AL** = action level
PPB = parts per billion or micrograms per liter (ug/L) **L/T** = Less Than **MCL** = maximum contaminant level **TT** = treatment techniques

MCL= The highest level of a contaminant that is allowed in drinking water, and are set as close to the MCLGs as feasible.
MCLG= The level of a contaminant in drinking water below which there is no known or expected risk to health.