NEW CASTLE/STANWOOD CONSOLIDATED WATER SYSTEM

2013 WATER ANALYSIS

TABLE OF *DETECTED* CONTAMINANTS

Contaminants (units)	Violation Yes or No	Date of Sample	MCL	New Castle Result 2013	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	0.048 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	0.87 mg/L	n/a	Erosion of natural deposits; Water additive which promotes good teeth; Discharge from fertilizer and aluminum factories
Nitrate (mg/L)	No	10/7/2013	10	0.13 mg/L	10	Runoff from fertilizer use. Leaching from septic tanks; Erosion of natural deposits
Barium (ug/L)	No	10/7/2013	2000 ug/L	7.6 ug/L	2000	Erosion of natural deposits.
Chloride (mg/L)	No	10/7/2013	250 mg/L	9.76 mg/L	n/a	Erosion of natural deposits; Road salt
Sodium (mg/L)	No	10/7/2013	N/A Levels are within HD Guidelines.	8.77 mg/L	n/a	Road Salt. Water containing more than 20 mg/L of sodium should not be used for drinking by people who are on severely restricted diets. L/T 270 mg/L for moderate diets.
Sulfate (mg/L)	No	10/7/2013	250 mg/L	3.73 mg/L	n/a	Erosion of natural deposits
Zinc (ug/L)	No	10/7/2013	5000 ug/L	9.9 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) (Maximum) (Range)	No	Quarterly	80 ug/L	26.50 ug/L 1.69 - 26.50	n/a	By-product of drinking water chlorination.
Haloacetic acids (ppb) (Maximum) (Range)	No	Quarterly	60 ug/L	21.3 ug/L 3.6 - 21.3	n/a	By-product of drinking water chlorination.
Chlorine Residual (entry Point)	No	Every 4 hours	4 mg/L	1.11 mg/L	n/a	By-product of drinking water chlorination.
Chlorine Residual (distribution system)	No	3 x per Day	4 mg/L	0.88 mg/L	n/a	By-product of drinking water chlorination.
Unregulated Contaminants						
Chromium (mg/L) Annual Average	No	Quarterly	n/a	0.22 ug/L	n/a	Erosion of natural deposits
Strontium (mg/L) Annual Average	No	Quarterly	n/a	17 ug/L	n/a	Erosion of natural deposits
Hexavalent Chromium (mg/L) Annual Average	No	Quarterly	n/a	0.05 ug/L	n/a	Erosion of natural deposits
Miscellaneous Analytes						
Hardness (mg/L)	No	10/7/2013	n/a	15.0 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	10/7/2013	n/a	16.1 mg/L	n/a	A measure of the alkaline constituents of water, mostly bicarbonates.
Calcium	No	10/7/2013	n/a	6.03 mg/L	n/a	A measure of the alkaline constituents of water
pH (units)	No	10/7/2013	n/a	7.26 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	10/7/2013	n/a	42.0 mg/L	n/a	A measure of dissolved solids in water.

Contaminant	Violation Yes or No	Date of Sample	Level Detected (Maximum) (Range)	Unit Measure-ment	Action Level	Likely Sources of Contamination
Lead	No	Jun-13	< LOQ < LOQ - 5.6	ug/L	15.0 ug/L	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	No	Jun-13	91.6 5.0 - 146	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 for lead and 91.6 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 2013.

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.