Fairfax Water

Water Quality Laboratory
Inorganics Analyses
Period of 01/01/2018 TO 12/31/2018
Griffith Treatment Plant Finished Water
Date Report Generated: 12/21/2018

Parameter	MCL[1]	Units[2]	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Quant Limit[3]
Aggressive Index Number		Units	12	11	11	11	11	11	11	10	11	10	11	-	N/A
Alkalinity, Bicarbonate		mg/L	77	72	53	55	44	52	60	40	55	47	64	-	0
Alkalinity, Carbonate		mg/L	0	0	0	0	0	0	0	0	0	0	0	-	0
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	0	0	0	0	0	0	-	0
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	0	0	0	0	0	0	-	0
Alkalinity, Total		mg/L	77	72	53	55	44	52	60	40	55	47	64	-	0
Bromate[4]	10 P	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	5
Bromide		mg/L	0.03	0.03	0.02	0.02	BQL	BQL	BQL	BQL	BQL	BQL	0.01	-	0.01
Carbon Dioxide		mg/L	4	5	2	3	4	4	2	6	3	5	4	-	N/A
Chloride	250 S	mg/L	57.1	63.4	69.9	74.2	48.3	29.1	30.6	23.3	26.5	24.3	36.0	-	5.0
Chlorine, Free[4]		mg/L	0.1	0.1	0.1	2.9	3.3	0.3	0.2	0.2	0.2	0.2	0.1	-	0.0
Chlorine, Total[4]		mg/L	3.4	3.2	3.2	3.4	3.6	3.4	3.3	3.6	3.6	3.4	3.3	-	0.0
Color	15 S	Units	0	0	0	0	0	0	0	0	0	0	0	-	0
Dissolved Oxygen		mg/L	23.8	17.6	15.3	17.7	19.4	17.0	15.3	17.1	16.5	13.9	17.5	-	0.0
Fluoride	4.0 P / 2.0 S	mg/L	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.6	0.7	0.6	0.7	-	0.2
Hardness, Calcium		mg/L	107	103	68	69	44	34	40	26	37	32	61	-	10
Hardness, Total		mg/L	142	137	91	96	60	46	53	33	49	42	83	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	BQL	-	-	-	-	-	0.05
N, Ammonia (Ammonia as N)[4]		mg/L	0.76	0.71	0.65	BQL	BQL	-	0.77	0.81	0.73	0.71	0.65	-	0.20
N, Nitrate (Nitrate as N)	10 P	mg/L	1.87	1.74	1.05	0.96	0.57	0.70	0.66	0.61	0.81	0.74	1.40	-	0.20
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	0.01	-	0.01
pH	6.5 - 8.5 S	Units	7.6	7.5	7.7	7.5	7.3	7.4	7.8	7.1	7.5	7.3	7.5	-	N/A
Phosphate as Phosphorous		mg/L	0.45	0.41	0.44	0.52	0.53	0.43	0.44	0.45	-	0.44	0.42	-	0.10
Orthophosphate as PO_4		mg/L	1.37	1.25	1.35	1.58	1.60	1.32	1.34	1.36	-	1.34	1.27	-	0.31
Solids, Total		mg/L	291	301	241	244	168	127	159	107	144	135	199	-	1
Solids, Total Dissolved	500 S	mg/L	292	334	204	232	168	134	160	66	114	162	202	-	1
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	1
Specific Conductivity		µmhos/cm	512	520	404	448	301	238	261	188	233	207	326	-	0
Sulfate	250 S	mg/L	63.9	59.8	26.5	30.3	16.8	10.8	12.4	7.9	13.4	10.0	29.4	-	5.0
Taste		Units	2	2	2	2	2	2	1	2	2	2	2	-	1
Temperature		°C	12.7	12.5	14.1	16.0	18.0	22.4	23.5	25.2	24.9	21.6	18.2	-	N/A
Threshold Odor Number	3 S	Units	7	8	4	7	4	7	3	3	6	7	4	-	0
Total Organic Carbon		mg/L	2.3	2.4	2.3	2.3	2.5	2.7	2.4	2.2	2.1	2.2	2.3	-	0.5
Turbidity	≤ 5 P	NTU	0.05	0.10	0.05	0.05	0.05	0.10	0.05	0.10	0.10	0.10	0.10	-	0.05

BQL = The lowest quantitation limit of all analyses for the particular parameter: Below Quantitation Limit

[1]Environmental Protection Agency/Virginia Department of Health established levels for drinking water at points of entry to the water distribution system

P = Primary - enforceable, S = Secondary - non-enforceable, AL = Action Level on specific taps, MCL = Maximum Contaminant Level

[2]mg/L = milligrams per liter, µg/L = micrograms per liter, µmhos/cm = micromhos per centimeter, NTU = Nephelometric Turbidity Units

[3]Quant Limit = Quantitation Limit : lowest level of measurement, N/A = not applicable

- Not sampled

* Analysis pending

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Metal Analyses

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Aluminum	50 - 200 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	25.0
Antimony	6 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Arsenic	10 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Barium	2000 P	µg/L	40.0	-	-	33.2	-	-	BQL	-	-	BQL	-	-	25.0
Beryllium	4 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Cadmium	5 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Calcium		mg/L	40.6	-	-	28.6	-	-	14.7	-	-	10.9	-	-	1.0
Chromium	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Copper	1300 AL	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Lead	15 AL	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Magnesium		mg/L	8.7	-	-	7.5	-	-	4.3	-	-	3.4	-	-	1.0
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Mercury	2 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	0.50
Nickel	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Potassium		mg/L	6.9	-	-	4.3	-	-	3.4	-	-	2.9	-	-	1.0
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Silicon		mg/L	1.8	-	-	1.8	-	-	4.2	-	-	5.1	-	-	1.0
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Sodium		mg/L	36.5	38.5	37.6	45.1	31.2	25.9	25.6	19.9	22.7	16.9	27.6	-	1.0
Thallium	2 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Zinc	5000 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	25.0

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