Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2014 TO 12/31/2014
Griffith Treatment Plant Finished Water

Parameter	MCL [1]	Units [2]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit [3]	# of Tests
Aggressive Index Number		Units	11	11	11	11	-	-	11	-	11	12	12	-	11	12	11	-	8
Alkalinity, Bicarbonate		mg/L	35	30	44	34	-	-	58	-	64	69	72	-	51	72	30	0	8
Alkalinity, Carbonate		mg/L	0	0	0	0	-	-	0	-	0	0	0	-	0	0	0	0	8
Alkalinity, Hydroxyl		mg/L	0	0	0	0	-	-	0	-	0	0	0	-	0	0	0	0	8
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	-	-	0	-	0	0	0	-	0	0	0	0	8
Alkalinity, Total		mg/L	35	30	44	34	-	-	58	-	64	69	72	-	51	72	30	0	8
Bromate	10 P	µg/L	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL	BQL	BQL	5	36
Bromide		mg/L	0.01	0.02	0.02	BQL	-	-	0.01	-	0.02	0.02	0.02	-	0.02	0.02	BQL	0.01	8
Carbon Dioxide		mg/L	2	2	2	3	-	-	6	-	4	2	1	-	3	6	1	-	8
Chloride	250.0 S	mg/L	53.4	90.9	90.3	44.6	-	-	33.7	-	39.0	46.6	47.3	-	55.7	90.9	33.7	5.0	8
Chlorine, Free		mg/L	0.0*	0.2*	0.1*	3.4*	-	-	0.2*	-	0.3*	0.1*	0.1*	-	0.5	3.4	0.0	0.0	24
Chlorine, Total		mg/L	2.7*	3.5*	3.0*	3.8*	-	-	3.1*	-	3.6*	3.8*	3.8*	-	3.4	3.9	2.6	0.0	24
Color	15 S	Units	1	2	0	1	-	-	0	-	0	0	0	-	1	2	0	0	8
Dissolved Oxygen		mg/L	21.5	24.1	20.9	15.7	-	-	16.2	-	12.8	14.4	15.1	-	17.6	24.1	12.8	0.0	8
Fluoride	4.0/2.0 P/S	mg/L	0.7	0.6	0.6	0.6	-	-	0.7	-	0.7	0.7	0.7	-	0.7	0.7	0.6	0.2	8
Hardness, Calcium		mg/L	34	44	61	37	-	-	46	-	58	74	76	-	54	76	34	10	8
Hardness, Total		mg/L	55	66	85	46	-	-	64	-	80	101	101	-	75	101	46	10	8
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	ND	-	-	-	-	-	ND	ND	ND	0.05	1
N, Ammonia (Ammonia as N)		mg/L	0.71*	0.85*	0.83*	BQL*	-	-	0.71*	-	0.98*	0.77*	0.89*	-	0.72	1.19	BQL	0.20	24
N, Nitrate (Nitrate as N)	10 P	mg/L	0.98	0.85	0.76	0.48	-	-	0.95	-	1.18	1.59	1.45	-	1.03	1.59	0.48	0.20	8
N, Nitrite (Nitrite as N)	1 P	mg/L	0.01	0.01	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	0.01	BQL	0.01	8
pH	6.5-8.5 S	Units	7.6	7.4	7.6	7.4	-	-	7.3	-	7.5	7.9	8.2	-	7.6	8.2	7.3	-	8
Phosphate as Phosphorous		mg/L	0.28	0.34	0.30	0.44	-	-	0.44	-	0.33	0.32	0.34	-	0.35	0.44	0.28	0.10	8
Orthophosphate as PO4		mg/L	0.87	1.02	0.93	1.33	-	-	1.34	-	1.00	0.99	1.05	-	1.07	1.34	0.87	0.31	8
Solids, Total		mg/L	178	235	266	149	-	-	164	-	205	230	235	-	208	266	149	1	8
Solids, Total Dissolved	500 S	mg/L	-	226	266	206	-	-	150	-	174	204	242	-	210	266	150	1	7
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	1	8
Specific Conductivity		µmhos/cm	297	422	463	249	-	-	270	-	326	396	407	-	354	463	249	0	8
Sulfate	250.0 S	mg/L	16.2	18.2	24.6	13.0	-	-	20.6	-	28.7	46.9	44.8	-	26.6	46.9	13.0	5.0	8
Taste		Units	3	1	2	1	-	-	2	-	2	1	2	-	2	3	1	1	8
Temperature		°C	10.7	11.9	12.6	17.4	-	-	23.5	-	22.2	19.7	17.8	-	17.0	23.5	10.7	-	8
Threshold Odor Number	3 S	Units	7	3	4	4	-	-	1	-	1	1	1	-	3	7	1	0	8
Total Organic Carbon		mg/L	1.8	1.5	1.7	2.3	-	-	1.9	-	2.0	2.1	2.1	-	1.9	2.3	1.5	0.5	8
Turbidity	≤ 5 P	NTU	0.10	0.05	0.05	0.05	-	-	0.10	-	0.15	0.05	0.15	-	0.09	0.15	0.05	0.05	8

* = Monthly result composed from an average of parameter results for Griffith Treatment Plant finished water points of entry to distribution system.

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

Report No: 010915143705

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METAL ANALYSES
PERIOD OF 01/01/2014 TO 12/31/2014
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Parameter	MCL [1]	Units [2]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit [3]	# of Tests
Aluminum	50-200 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	25.0	4
Antimony	6 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Arsenic	10 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Barium	2000 P	µg/L	BQL	-	-	25.3	-	-	31.4	-	-	34.4	-	-	BQL	34.4	BQL	25.0	4
Beryllium	4 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Cadmium	5 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Calcium		mg/L	14.1	-	-	13.0	-	-	18.6	-	-	31.0	-	-	19.2	31.0	13.0	1.0	4
Chromium	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Copper	1300 AL	µg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	25.0	8
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	25.0	8
Lead	15 AL	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	4.0	-	-	3.8	-	-	4.4	-	-	7.0	-	-	4.8	7.0	3.8	1.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	25.0	8
Mercury	2 P	µg/L	BQL	-	-	-	-	-	BQL	-	-	-	-	-	BQL	BQL	BQL	0.50	2
Nickel	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Potassium		mg/L	2.6	-	-	2.4	-	-	3.8	-	-	5.6	-	-	3.6	5.6	2.4	1.0	4
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Silicon		mg/L	4.3	-	-	3.0	-	-	3.5	-	-	3.3	-	-	3.5	4.3	3.0	1.0	4
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Sodium		mg/L	29.9	46.2	52.6	28.8	-	-	26.7	-	30.0	36.4	36.6	-	35.9	52.6	26.7	1.0	8
Thallium	2 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Zinc	5000 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	25.0	4

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