Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2013 TO 12/31/2013
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	10	11	10	-	11	11	11	11	11	-	11	11	10	-	10
Alkalinity, Bicarbonate		mg/L	44	36	32	50	43	-	54	43	60	68	55	-	49	68	32	-	10
Alkalinity, Carbonate		mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	-	10
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	-	10
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	-	10
Alkalinity, Total		mg/L	44	36	32	50	43	-	54	43	60	68	55	-	49	68	32	-	10
Bromate	10 P	µg/L	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	BQL	5	BQL	5	36
Bromide		mg/L	0.01	0.01	0.01	0.02	0.01	-	BQL	BQL	0.01	0.02	0.01	-	0.01	0.02	BQL	0.01	10
Carbon Dioxide		mg/L	4	1	3	5	5	-	3	3	4	4	2	-	3	5	1	-	10
Chloride	250.0 S	mg/L	40.6	37.7	43.8	53.0	36.4	-	33.7	24.6	32.6	43.6	30.0	-	37.6	53.0	24.6	5.0	10
Chlorine, Free		mg/L	0.1*	0.0*	0.1*	3.2*	3.1*	-	0.3*	0.2*	0.2*	0.1*	0.0*	-	0.8	3.2	0.0	0.0	30
Chlorine, Total		mg/L	3.4*	3.4*	3.4*	3.3*	3.5*	-	3.2*	3.3*	3.2*	3.9*	3.5*	-	3.4	4.0	2.5	0.0	30
Color	15 S	Units	1	0	0	1	0	-	0	0	1	1	2	<5	1	2	0	0/5(Dec)	11
Dissolved Oxygen		mg/L	17.2	19.3	15.7	14.9	13.5	-	12.9	14.0	12.1	15.9	15.3	-	15.1	19.3	12.1	0.0	10
Fluoride	4.0/2.0 P/S	mg/L	0.6	0.7	0.7	0.6	0.6	-	BQL	BQL	0.7	0.6	0.7	-	0.5	0.7	BQL	0.2	10
Hardness, Calcium		mg/L	46	35	33	56	40	-	45	30	55	84	55	-	48	84	30	-	10
Hardness, Total		mg/L	64	50	47	78	56	-	62	40	73	108	74	-	65	108	40	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	ND	-	-	-	-	-	ND	ND	ND	0.05	1
N, Ammonia (Ammonia as N)		mg/L	0.99*	0.82*	0.70*	BQL*	BQL*	-	0.68*	0.78*	0.65*	-	0.85*	-	0.61	1.01	BQL	0.20	27
N, Nitrate (Nitrate as N)	10 P	mg/L	0.8	0.8	0.6	0.6	0.8	-	1.1	0.6	0.9	1.9	1.1	-	0.9	1.9	0.6	0.2	10
N, Nitrite (Nitrite as N)	1 P	mg/L	-	BQL	0.01	BQL	BQL	-	0.01	BQL	BQL	BQL	0.01	-	BQL	0.01	BQL	0.01	9
pH	6.5-8.5 S	Units	7.4	7.8	7.3	7.3	7.2	-	7.5	7.4	7.5	7.5	7.7	-	7.5	7.8	7.2	-	10
Phosphate as Phosphorous		mg/L	0.36	0.37	0.39	0.38	0.35	-	0.35	0.33	0.41	0.32	0.32	-	0.36	0.41	0.32	0.10	10
Orthophosphate as PO4		mg/L	1.09	1.12	1.20	1.17	1.07	-	1.07	1.01	1.24	0.98	0.98	-	1.09	1.24	0.98	0.31	10
Solids, Total		mg/L	160	143	131	211	170	-	165	112	188	240	167	-	169	240	112	1	10
Solids, Total Dissolved	500 S	mg/L	-	150	90	200	-	-	186	162	178	184	164	-	164	200	90	1	8
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	1	10
Specific Conductivity		µmhos/cm	283	249	259	355	257	-	289	203	304	395	281	-	288	395	203	0	10
Sulfate	250.0 S	mg/L	24.9	17.3	14.8	29.7	17.9	-	21.5	12.7	28.4	50.0	29.4	-	24.7	50.0	12.7	5.0	10
Taste		Units	3	3	2	3	2	-	3	2	3	2	2	-	3	3	2	1	10
Temperature		°C	11.5	11.2	12.9	16.7	19.5	-	24.1	23.8	22.8	21.2	16.2	-	18.0	24.1	11.2	-	10
Threshold Odor Number	3 S	Units	1	1	1	1	7	-	1	1	3	1	4	-	2	7	1	0	10
Total Organic Carbon		mg/L	2.8	2.4	2.1	1.8	2.4	-	2.2	2.2	2.3	2.1	2.6	-	2.3	2.8	1.8	0.5	10
Turbidity	≤ 5 P	NTU	0.10	0.10	0.10	0.10	0.10	-	0.25	0.05	0.05	0.05	0.05	-	0.10	0.25	0.05	0.05	10

* = 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: 012314140212

Fairfax Water

WATER QUALITY LABORATORY
METAL ANALYSES
PERIOD OF 01/01/2013 TO 12/31/2013
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
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	-	-	32.0	-	-	29.4	-	-	39.9	-	-	25.3	39.9	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	19.4	-	-	21.7	-	-	18.5	-	-	31.0	-	-	22.6	31.0	18.5	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	BQL	BQL	25.0	10
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	25.0	10
Lead	15 AL	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	4.8	-	-	5.6	-	-	4.6	-	-	6.1	-	-	5.3	6.1	4.6	1.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	25.0	10
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	3.5	-	-	2.7	-	-	3.9	-	-	6.0	-	-	4.0	6.0	2.7	1.0	4
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Silicon		mg/L	3.1	-	-	2.5	-	-	3.6	-	-	2.9	-	-	3.0	3.6	2.5	1.0	4
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Sodium		mg/L	25.8	24.7	26.8	31.2	23.9	-	26.2	20.5	26.6	32.1	23.0	-	26.1	32.1	20.5	1.0	10
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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