Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2009 TO 12/31/2009
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	# of Tests
Aggressive Index Number		Units	11	--	11	11	--	11	11	11	11	11	12	11	11	12	11	-	10
Alkalinity, Bicarbonate		mg/L	66	49	56	60	--	47	56	69	75	76	77	58	63	77	47	-	11
Alkalinity, Carbonate		mg/L	0	0	0	0	--	0	0	0	0	0	0	0	0	0	0	-	11
Alkalinity, Hydroxyl		mg/L	0	0	0	0	--	0	0	0	0	0	0	0	0	0	0	-	11
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	--	0	0	0	0	0	0	0	0	0	0	-	11
Alkalinity, Total		mg/L	66	49	56	60	--	47	56	69	75	76	77	58	63	77	47	-	11
Bromate	10 P	µg/L	BQL*	--	--	BQL*	BQL*	BQL*	BQL*	5*	6*	8*	BQL*	BQL*	BQL	8	BQL	5	30
Bromide		mg/L	0.02	0.02	0.02	0.02	--	BQL	0.01	0.02	0.02	BQL	0.02	0.02	0.02	0.02	BQL	0.01	11
Carbon Dioxide		mg/L	3	2	3	4	--	4	1	4	5	3	2	4	3	5	1	-	11
Chloride	250.0 S	mg/L	37.2	38.8	60.3	82.4	--	27.9	29.1	39.9	45.9	53.6	51.8	36.7	46.6	82.4	27.9	5.0	11
Chlorine, Free		mg/L	0.3	0.2*	0.3*	3.4*	--	2.6*	0.3*	0.4*	0.2*	0.1*	0.2*	0.2*	0.8	3.5	0.1	0.0	31
Chlorine, Total		mg/L	3.6	3.7*	3.3*	3.6*	--	2.8*	3.3*	3.6*	3.6*	3.4*	3.4*	3.4*	3.4	3.9	2.8	0.0	31
Color	15 S	Units	2	0	0	1	--	1	1	1	0	0	1	2	1	2	0	0	11
Cyanide (as free cyanide)	0.2 P	mg/L	--	--	--	--	--	--	--	--	--	--	BQL	--	BQL	BQL	BQL	0.025	1
Dissolved Oxygen		mg/L	--	20.2	19.4	15.9	--	22.8	17.2	13.7	16.7	9.1	22.3	19.8	17.7	22.8	9.1	0.0	11
Fluoride	4.0/2.0 P/S	mg/L	1.0	1.0	0.9	0.8	--	0.9	0.9	1.0	1.0	1.1	1.0	1.0	1.0	1.1	0.8	0.2	11
Hardness, Calcium		mg/L	68	52	70	80	--	38	42	66	76	82	100	60	67	100	38	-	11
Hardness, Total		mg/L	105	89	106	127	--	58	65	91	113	110	131	80	97	131	58	-	11
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	0.84	0.76*	0.96*	BQL*	--	BQL*	0.87*	0.89*	1.03*	1.03*	1.14*	--	0.75	1.21	BQL	0.20	28
N, Nitrate (Nitrate as N)	10 P	mg/L	1.2	1.3	1.6	1.1	--	0.6	0.5	1.3	2.0	2.4	2.8	1.5	1.5	2.8	0.5	0.2	11
N, Nitrite (Nitrite as N)	1 P	mg/L	--	BQL	--	BQL	--	BQL	BQL	--	BQL	BQL	0.01	0.01	BQL	0.01	BQL	0.01	8
pH	6.5-8.5 S	Units	7.6	7.6	7.6	7.5	--	7.4	7.9	7.5	7.5	7.7	7.8	7.5	7.6	7.9	7.4	-	11
Phosphate as Phosphorous		mg/L	0.57	0.59	0.59	0.55	--	0.45	--	0.44	0.47	0.64	0.60	0.62	0.55	0.64	0.44	0.10	10
Solids, Total		mg/L	218	183	246	273	--	148	149	198	254	263	260	204	218	273	148	1	11
Solids, Total Dissolved	500 S	mg/L	208	180	241	251	--	120	146	204	241	271	271	185	211	271	120	1	11
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1	11
Specific Conductivity		µmhos/cm	350	303	398	476	--	210	248	336	406	457	445	308	359	476	210	0	11
Sulfate	250.0 S	mg/L	37.9	27.0	32.1	35.4	--	14.1	15.8	30.9	38.3	43.5	52.1	29.3	31.9	52.1	14.1	10.0	11
Taste		Units	3	2	2	3	--	2	2	2	3	4	1	2	2	4	1	1	11
Temperature		°C	16.6	15.4	15.0	16.8	--	21.4	23.0	24.4	22.5	19.5	18.0	16.5	19.3	24.4	15.0	-	11
Threshold Odor Number	3 S	Units	4	8	3	6	--	5	3	4	6	8	7	7	6	8	3	0	11
Total Organic Carbon		mg/L	2.6	3.0	2.4	2.4	--	2.9	2.7	2.5	2.3	2.7	2.4	2.6	2.6	3.0	2.3	0.5	11
Turbidity	≤ 5 P	NTU	0.10	0.10	0.15	0.10	--	0.15	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.15	0.10	0.00	11

* = 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
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

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Fairfax Water

WATER QUALITY LABORATORY
METAL ANALYSES
PERIOD OF 01/01/2009 TO 12/31/2009
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	# of Tests
Aluminum	50-200 S	µg/L	BQL	--	--	BQL	--	--	27.1	--	--	BQL	--	--	BQL	27.1	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	25.7	--	--	37.4	--	--	26.4	--	--	33.6	--	--	32.5	37.4	26.4	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	27.4	--	--	32.6	--	--	16.7	--	--	33.4	--	--	27.6	33.4	16.7	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	BQL	25.0	11
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	11
Lead	15 AL	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	6.7	--	--	8.1	--	--	4.9	--	--	6.9	--	--	6.6	8.1	4.9	1.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	11
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	5.6	--	--	4.7	--	--	3.8	--	--	6.4	--	--	5.0	6.4	3.8	1.0	4
Selenium	50 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon		mg/L	3.3	--	--	2.5	--	--	4.6	--	--	3.2	--	--	3.4	4.6	2.5	1.0	4
Silver	100 S	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium		mg/L	28.0	25.3	38.2	48.9	--	22.0	25.5	33.6	38.7	41.4	40.6	27.8	34.2	48.9	22.0	1.0	11
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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