Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2006 TO 12/31/2006
Occoquan 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	10	11	11	11	11	11	--	11	11	10	-	10
Alkalinity, Bicarbonate		mg/L	45	43	46	--	53	55	48	62	66	60	65	--	54	66	43	-	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	45	43	46	--	53	55	48	62	66	60	65	--	54	66	43	-	10
Bromate	10 P	µg/L	BQL	--	--	BQL	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	10	3
Bromide		mg/L	BQL	BQL	BQL	--	BQL	BQL	BQL	0.01	BQL	0.01	0.02	--	BQL	0.02	BQL	0.01	10
Carbon Dioxide		mg/L	4	2	4	--	8	22	6	20	3	10	13	--	9	22	2	-	10
Chloride	250.0 S	mg/L	40.9	28.5	46.0	--	34.2	37.9	21.0	31.1	31.3	27.6	29.1	--	32.8	46.0	21.0	5.0	10
Chlorine, Free		mg/L	0.1	0.1	0.0	--	4.5	3.8	3.7	0.4	0.1	0.1	0.0	--	1.3	4.5	0.0	0.0	10
Chlorine, Total		mg/L	3.4	3.5	3.5	--	4.5	4.1	4.1	3.3	3.6	3.1	4.0	--	3.7	4.5	3.1	0.0	10
Color	15 S	Units	6	2	2	--	4	3	12	4	6	7	2	--	5	12	2	0	10
Dissolved Oxygen		mg/L	12.4	11.2	12.6	--	6.0	3.7	2.8	2.8	2.7	5.2	7.6	--	6.7	12.6	2.7	0.0	10
Fluoride	4.0/2.0 P/S	mg/L	0.9	0.8	0.9	--	0.9	0.9	0.9	0.9	1.0	1.1	0.9	--	0.9	1.1	0.8	0.2	10
Hardness, Calcium		mg/L	90	75	79	--	85	89	100	102	114	101	110	--	95	114	75	-	10
Hardness, Total		mg/L	108	98	103	--	105	115	112	124	132	127	137	--	116	137	98	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	1.04	1.20	0.98	--	BQL	0.06	--	0.92	--	1.47	1.08	--	0.84	1.47	BQL	0.05	8
N, Nitrate (Nitrate as N)	10 P	mg/L	2.0	1.5	1.8	--	1.3	1.2	0.5	0.3	1.2	1.5	2.4	--	1.4	2.4	0.3	0.2	10
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	--	BQL	--	BQL	BQL	BQL	0.01	8
pH	6.5-8.5 S	Units	7.4	7.6	7.4	--	7.1	6.7	7.2	6.8	7.6	7.1	7.0	--	7.2	7.6	6.7	-	10
Phosphate as Phosphorous		mg/L	0.60	0.27	0.32	--	0.35	0.42	0.33	0.30	0.49	0.73	0.42	--	0.42	0.73	0.27	0.20	10
Solids, Fixed		mg/L	134	105	178	--	149	192	149	174	191	--	164	--	160	192	105	1	9
Solids, Total		mg/L	247	175	220	--	237	277	210	306	296	--	311	--	253	311	175	1	9
Solids, Total Dissolved	500 S	mg/L	206	162	217	--	185	200	193	206	244	201	233	--	205	244	162	1	10
Solids, Total Suspended		mg/L	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	1	10
Solids, Volatile		mg/L	113	70	42	--	88	85	61	132	105	--	147	--	94	147	42	1	9
Specific Conductivity		µmhos/cm	334	269	314	--	308	303	--	334	363	361	343	--	325	363	269	0	9
Sulfate	250.0 S	mg/L	41.9	39.1	41.5	--	41.1	49.5	52.0	53.5	62.7	64.4	57.6	--	50.3	64.4	39.1	5.0	10
Taste		Units	2	2	3	--	4	4	4	3	2	1	2	--	3	4	1	1	10
Temperature		°C	8.5	9.9	9.4	--	17.0	22.9	25.5	27.7	26.2	19.0	16.7	--	18.3	27.7	8.5	-	10
Threshold Odor Number	3 S	Units	1	7	1	--	11	5	9	5	3	1	2	--	5	11	1	1	10
Total Organic Carbon		mg/L	2.2	1.9	1.9	--	2.8	2.8	3.7	3.0	2.9	2.8	3.0	--	2.7	3.7	1.9	0.5	10
Turbidity	≤5 P	NTU	0.45	0.55	0.35	--	0.60	0.50	0.60	0.75	0.90	0.60	0.55	--	0.59	0.90	0.35	0.00	10

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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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	--	56.7	--	--	79.5	40.4	--	65.1	--	34.4	--	--	55.2	79.5	34.4	25.0	5
Antimony	6 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Arsenic	10 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Barium	2000 P	µg/L	--	32.6	--	--	29.8	31.7	--	41.2	--	29.7	--	--	33.0	41.2	29.7	25.0	5
Beryllium	4 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Cadmium	5 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Calcium		mg/L	--	29.5	--	--	34.9	38.2	--	43.2	46.2	42.8	--	--	39.1	46.2	29.5	0.5	6
Chromium	100 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
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	60	10
Lead	15 AL	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Magnesium		mg/L	--	5.2	--	--	5.5	5.5	--	5.2	5.3	5.6	--	--	5.4	5.6	5.2	0.5	6
Manganese	50 S	µg/L	BQL	BQL	BQL	--	BQL	BQL	29	BQL	BQL	BQL	BQL	--	BQL	29	BQL	25.0	10
Mercury	2 P	µg/L	--	BQL	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.5	2
Nickel	100 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Potassium		mg/L	--	2.8	--	--	3.2	3.8	--	4.6	--	4.3	--	--	3.7	4.6	2.8	0.5	5
Selenium	50 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Silicon		mg/L	--	4	--	--	BQL	BQL	--	4	--	4	--	--	BQL	4	BQL	4	5
Silver	100 S	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Sodium		mg/L	21.1	14.9	24.8	--	18.3	18.7	7.8	15.8	17.4	15.3	14.6	--	16.9	24.8	7.8	5.0	10
Thallium	2 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Zinc	5000 S	µg/L	--	84	--	--	100	130	--	105	--	234	--	--	131	234	84	25	5

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