Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2006 TO 12/31/2006
Occoquan Reservoir – Griffith / Lorton / Occoquan Water Treatment Plants Source

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	10	11	--	10	10	10	10	10	11	11	--	10	11	10	-	10
Alkalinity, Bicarbonate		mg/L	40	40	44	--	47	57	37	62	56	57	64	--	50	64	37	-	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	40	40	44	--	47	57	37	62	56	57	64	--	50	64	37	-	10
Bromate		µg/L	BQL	--	--	--	--	--	--	--	--	--	--	--	BQL	BQL	BQL	10	1
Bromide		mg/L	0.02	0.02	0.02	0.03	0.02	0.03	BQL	0.03	0.03	0.02	0.03	0.02	0.02	0.03	BQL	0.01	12
Carbon Dioxide		mg/L	3	6	4	--	15	23	23	25	18	7	13	--	14	25	3	-	10
Chloride		mg/L	35.6	23.4	42.7	--	27.3	29.0	BQL	21.1	22.8	19.2	22.4	--	24.4	42.7	BQL	5.0	10
Color		Units	42	61	34	--	35	22	83	46	32	96	49	--	50	96	22	0	10
Dissolved Oxygen		mg/L	11.5	10.5	13.0	--	4.4	3.1	2.1	3.2	2.6	7.1	7.7	--	6.5	13.0	2.1	0.0	10
Fluoride		mg/L	BQL	BQL	BQL	--	BQL	0.2	BQL	0.2	BQL	BQL	BQL	--	BQL	0.2	BQL	0.2	10
Hardness, Calcium		mg/L	51	44	62	--	59	66	31	53	56	56	78	--	56	78	31	-	10
Hardness, Total		mg/L	77	66	76	--	72	79	42	75	79	78	94	--	74	94	42	-	10
Methylene Blue Activated Substances		mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	BQL	0.05	BQL	--	BQL	0.13	--	--	--	0.19	0.10	--	0.07	0.19	BQL	0.05	7
N, Nitrate (Nitrate as N)		mg/L	2.0	1.6	1.8	--	1.1	1.1	0.5	0.3	1.2	1.4	2.3	--	1.3	2.3	0.3	0.2	10
N, Nitrite (Nitrite as N)		mg/L	0.01	0.01	0.01	--	0.09	--	0.04	0.09	--	0.03	0.03	--	0.04	0.09	0.01	0.01	8
pH		Units	7.4	7.1	7.3	--	6.8	6.7	6.5	6.7	6.8	7.2	7.0	--	7.0	7.4	6.5	-	10
Phosphate as Phosphorous		mg/L	BQL	BQL	BQL	--	BQL	--	0.02	--	0.01	0.03	0.01	--	BQL	0.03	BQL	0.01	8
Solids, Fixed		mg/L	108	119	129	--	128	137	68	126	132	--	165	--	124	165	68	1	9
Solids, Total		mg/L	228	150	215	--	217	189	138	192	185	--	226	--	193	228	138	1	9
Solids, Total Dissolved		mg/L	160	129	176	--	140	158	111	144	160	131	176	--	149	176	111	1	10
Solids, Total Suspended		mg/L	2	9	4	--	3	4	9	8	5	4	16	--	6	16	2	1	10
Solids, Volatile		mg/L	120	31	86	--	89	52	70	66	53	--	61	--	70	120	31	1	9
Specific Conductivity		µmhos/cm	260	201	256	--	236	237	--	232	246	240	256	--	240	260	201	0	9
Sulfate		mg/L	20.1	19.2	21.6	--	21.4	24.6	BQL	22.3	28.7	25.6	28.0	--	21.2	28.7	BQL	5.0	10
Temperature		°C	4.8	6.0	5.9	--	16.9	21.3	24.0	26.7	22.0	18.8	11.7	--	15.8	26.7	4.8	-	10
Threshold Odor Number		Units	5	6	6	--	6	7	1	6	9	6	5	--	6	9	1	1	10
Total Organic Carbon		mg/L	2.2	4.5	3.8	--	5.2	4.8	8.9	6.0	5.4	5.9	5.6	--	5.2	8.9	2.2	0.5	10
Turbidity		NTU	9.00	21.00	9.40	--	3.10	3.70	12.00	6.50	4.60	7.30	16.00	--	9.26	21.00	3.10	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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METAL ANALYSES
PERIOD OF 01/01/2006 TO 12/31/2006
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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		µg/L	--	694.0	--	--	46.6	47.0	--	228.0	--	157.0	--	--	234.5	694.0	46.6	25.0	5
Antimony		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Arsenic		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Barium		µg/L	--	30.3	--	--	28.7	32.9	--	51.5	--	29.9	--	--	34.7	51.5	28.7	25.0	5
Beryllium		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Cadmium		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Calcium		mg/L	--	15.5	--	--	20.3	23.0	--	21.9	23.0	21.7	--	--	20.9	23.0	15.5	0.5	6
Chromium		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Copper		µg/L	BQL	BQL	BQL	--	BQL	34	BQL	88	BQL	BQL	BQL	--	BQL	88	BQL	25.0	10
Iron		µg/L	541	897	426	--	134	114	512	229	124	456	173	--	361	897	114	60	10
Lead		µg/L	--	BQL	--	--	BQL	2.8	--	17.4	--	BQL	--	--	4.0	17.4	BQL	2.0	5
Magnesium		mg/L	--	4.9	--	--	5.2	5.5	--	5.1	5.3	5.5	--	--	5.3	5.5	4.9	0.5	6
Manganese		µg/L	95	75	68	--	58	271	236	761	90	80	58	--	179	761	58	25.0	10
Mercury		µg/L	--	BQL	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.5	2
Nickel		µg/L	--	BQL	--	--	BQL	BQL	--	11.3	--	BQL	--	--	BQL	11.3	BQL	5.0	5
Potassium		mg/L	--	3.0	--	--	3.2	3.6	--	4.4	--	4.2	--	--	3.7	4.4	3.0	0.5	5
Selenium		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Silicon		mg/L	--	6	--	--	BQL	4	--	5	--	4	--	--	BQL	6	BQL	4	5
Silver		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Sodium		mg/L	21.1	14.7	25.1	--	17.7	18.8	7.5	15.8	17.5	13.7	12.7	--	16.5	25.1	7.5	5.0	10
Thallium		µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Zinc		µg/L	--	BQL	--	--	BQL	31	--	141	--	BQL	--	--	34	141	BQL	25	5

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