



**WATER QUALITY LABORATORY  
INORGANIC ANALYSES  
PERIOD OF 01/01/2004 TO 12/31/2004**

**Occoquan Reservoir-Lorton/Occoquan Water Treatment Plant Source**

Parameter	MCL <sup>1</sup>	Units <sup>2</sup>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# of Tests
Aggressive Index Number		Units	--	10	11	10	10	10	--	10	11	10	10	--	10	11	10	-	9
Alkalinity, Bicarbonate		mg/L	--	31	35	29	48	54	--	61	61	45	52	--	46	61	29	-	9
Alkalinity, Carbonate		mg/L	--	0	0	0	0	0	--	0	0	0	0	--	0	0	0	-	9
Alkalinity, Hydroxyl		mg/L	--	0	0	0	0	0	--	0	0	0	0	--	0	0	0	-	9
Alkalinity, Phenolphthalein		mg/L	--	0	0	0	0	0	--	0	0	0	0	--	0	0	0	-	9
Alkalinity, Total		mg/L	--	31	35	29	48	54	--	61	61	45	52	--	46	61	29	-	9
Bromate		µg/L	BQL *	--	--	BQL	--	--	--	--	--	--	--	--	BQL	BQL	BQL	5	3
Bromide		mg/L	0.02	0.04	0.03	0.02	0.03	0.04	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.04	0.02	0.01	12
Carbon Dioxide		mg/L	--	10	2	6	15	14	--	15	10	14	10	--	11	15	2	-	9
Chemical Oxygen Demand		mg/L	--	13.1	--	--	--	11.3	--	--	--	--	--	--	12.2	13.1	11.3	5.0	2
Chloride		mg/L	--	70.8	33.2	16.5	23.0	26.6	--	26.6	28.4	17.8	20.3	--	29.2	70.8	16.5	5.0	9
Color		Units	--	108	37	168	30	32	--	34	30	58	--	--	62	168	30	0	8
Dissolved Oxygen		mg/L	--	12.3	13.0	8.7	4.1	3.6	--	3.0	4.5	3.4	7.8	--	6.7	13.0	3.0	0.0	9
Fluoride		mg/L	--	BQL	BQL	BQL	BQL	0.2	--	0.2	0.3	BQL	0.2	--	BQL	0.3	BQL	0.2	9
Hardness, Calcium		mg/L	--	47	48	30	51	59	--	57	58	43	39	--	48	59	30	-	9
Hardness, Total		mg/L	--	58	60	46	67	74	--	81	87	62	--	--	67	87	46	-	8
Methylene Blue Activated Substances		mg/L	--	--	--	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	--	0.13	BQL	--	BQL	0.10	--	0.30	BQL	--	--	--	0.09	0.30	BQL	0.05	6
N, Nitrate (Nitrate as N)		mg/L	--	1.2	1.0	0.8	1.0	1.4	--	0.9	1.2	1.0	1.2	--	1.1	1.4	0.8	0.2	9
N, Nitrite (Nitrite as N)		mg/L	--	0.02	0.01	0.01	0.03	0.09	--	0.04	0.04	0.02	0.02	--	0.03	0.09	0.01	0.01	9
pH		Units	--	6.8	7.5	7.0	6.8	6.9	--	6.9	7.1	6.8	7.0	--	7.0	7.5	6.8	-	9
Phosphate as Phosphorous		mg/L	--	0.02	BQL	0.02	BQL	BQL	--	BQL	BQL	--	--	--	BQL	0.02	BQL	0.01	7
Solids, Fixed		mg/L	--	180	136	183	137	125	--	138	136	112	146	--	144	183	112	1	9
Solids, Total		mg/L	--	249	234	265	219	253	--	207	226	196	186	--	226	265	186	1	9
Solids, Total Dissolved		mg/L	--	180	129	79	120	162	--	145	165	104	114	--	133	180	79	1	9
Solids, Total Suspended		mg/L	--	26	6	125	4	2	--	6	4	5	11	--	21	125	2	1	9
Solids, Volatile		mg/L	--	69	98	82	82	128	--	69	90	84	--	--	88	128	69	1	8
Specific Conductivity		µmhos/cm	--	299	222	122	209	243	--	251	249	192	209	--	222	299	122	0	9
Sulfate		mg/L	--	13.5	16.8	12.3	16.4	19.4	--	20.0	22.3	16.5	20.3	--	17.5	22.3	12.3	5.0	9
Temperature		°C	--	8.0	13.5	13.6	19.8	21.7	--	24.6	20.9	16.7	12.4	--	16.8	24.6	8.0	-	9
Threshold Odor Number		Units	--	11	9	11	5	5	--	5	3	8	1	--	6	11	1	1	9
Total Organic Carbon		mg/L	--	4.6	3.1	5.9	4.4	3.9	--	4.0	4.0	5.0	5.0	--	4.4	5.9	3.1	0.5	9
Turbidity		NTU	--	37.00	6.30	160.00	3.70	3.60	--	8.00	4.40	7.50	17.00	--	27.50	160.00	3.60	0.00	9

\* = Monthly result composed from an average of parameter results.

BQL = The lowest quantitation limit of all analyses for the particular parameter, Below Quantitation Limit.

<sup>1</sup> 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.

<sup>2</sup> mg/L=milligrams per liter, µg/L=micrograms per liter



**WATER QUALITY LABORATORY  
METAL ANALYSES  
PERIOD OF 01/01/2004 TO 12/31/2004**

**Occoquan Reservoir-Lorton/Occoquan Water Treatment Plant Source**

Parameter	MCL <sup>1</sup>	Units <sup>2</sup>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# of Tests
Aluminum		µg/L	--	962	--	--	BQL	--	--	BQL	--	--	--	--	BQL	962	BQL	500	3
Antimony		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Arsenic		µg/L	--	--	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	2
Barium		µg/L	--	33	--	--	--	--	--	36	--	--	--	--	35	36	33	10	2
Beryllium		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Cadmium		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Calcium		mg/L	--	14.2	--	--	18.4	--	--	22.2	--	--	15.6	--	17.6	22.2	14.2	0.5	4
Chromium		µg/L	--	2	--	--	BQL	--	--	BQL	--	--	--	--	BQL	2	BQL	1	3
Copper		µg/L	--	68	BQL	46	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	68	BQL	40	9
Iron		µg/L	--	1,932	475	3,874	188	146	--	328	162	429	722	--	917	3874	146	60	9
Lead		µg/L	--	1.14	--	--	BQL	--	--	5.00	--	--	--	--	2.05	5.00	BQL	0.29	3
Magnesium		mg/L	--	5.6	--	--	5.4	--	--	5.8	--	--	--	--	5.6	5.8	5.4	0.5	3
Manganese		µg/L	--	147	58	212	195	175	298	493	155	346	112	--	219	493	58	25	10
Mercury		µg/L	--	BQL	--	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.5	2
Nickel		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	5	3
Potassium		mg/L	--	3.7	--	--	2.7	--	--	4.0	--	--	--	--	3.5	4.0	2.7	0.5	3
Selenium		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Silicon		mg/L	--	5	--	--	BQL	--	--	5	--	--	--	--	BQL	5	BQL	4	3
Silver		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.5	3
Sodium		mg/L	--	36.2	17.3	10.2	14.0	18.6	--	19.8	19.8	12.6	14.2	--	18.1	36.2	10.2	5.0	9
Thallium		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Zinc		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	25	3

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