



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2009 TO 12/31/2009
Occoquan Reservoir – Griffith Water Treatment Plant Source**

Parameter	Units ¹	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	--	10	11	11	11	11	11	11	11	11	10	-	10
Alkalinity, Bicarbonate	mg/L	65	47	56	60	--	42	51	65	71	72	74	58	60	74	42	-	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	65	47	56	60	--	42	51	65	71	72	74	58	60	74	42	-	11
Bromide	mg/L	0.03	0.02	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.05	0.04	0.02	0.03	0.05	0.02	0.01	12
Carbon Dioxide	mg/L	4	4	3	2	--	5	5	3	11	7	7	7	5	11	2	-	11
Chloride	mg/L	28.5	29.8	51.8	73.1	--	14.3	17.0	26.8	34.2	38.9	40.4	24.5	34.5	73.1	14.3	5.0	11
Color	Units	30	54	33	32	--	84	56	41	26	16	21	46	40	84	16	0	11
Dissolved Oxygen	mg/L	9.8	13.5	11.6	8.4	--	4.6	4.4	3.5	1.9	5.7	6.4	7.4	7.0	13.5	1.9	0.0	11
Fluoride	mg/L	0.3	BQL	0.2	BQL	--	BQL	BQL	0.2	BQL	0.4	0.4	BQL	BQL	0.4	BQL	0.2	11
Hardness, Calcium	mg/L	70	54	70	82	--	34	42	64	80	84	96	63	67	96	34	-	11
Hardness, Total	mg/L	106	86	109	120	--	56	73	94	110	120	133	83	99	133	56	-	11
Methylene Blue Activated Substances	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)	mg/L	BQL	BQL	BQL	BQL	--	BQL	BQL	0.30	BQL	BQL	BQL	--	BQL	0.30	BQL	0.20	10
N, Nitrate (Nitrate as N)	mg/L	1.1	1.3	1.6	1.1	--	--	0.2	0.8	1.8	--	2.6	1.4	1.3	2.6	0.2	0.2	9
N, Nitrite (Nitrite as N)	mg/L	BQL	BQL	--	0.02	--	0.02	0.02	0.03	0.10	0.01	0.09	0.02	0.03	0.10	BQL	0.01	10
pH	Units	7.5	7.4	7.6	7.8	--	7.2	7.3	7.6	7.1	7.3	7.3	7.2	7.4	7.8	7.1	-	11
Phosphate as Phosphorous	mg/L	--	BQL	BQL	--	--	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.10	8
Solids, Total	mg/L	200	180	228	264	--	133	138	171	234	241	246	189	202	264	133	1	11
Solids, Total Dissolved	mg/L	191	155	226	244	--	111	131	153	226	223	245	166	188	245	111	1	11
Solids, Total Suspended	mg/L	2	3	4	4	--	2	3	2	2	3	2	2	3	4	2	1	11
Specific Conductivity	µmhos/cm	308	262	361	447	--	156	189	272	349	389	395	258	308	447	156	0	11
Sulfate	mg/L	36.3	26.0	31.6	34.7	--	12.3	14.4	28.2	35.5	44.6	51.7	27.5	31.2	51.7	12.3	10.0	11
Temperature	°C	5.3	5.1	7.3	12.6	--	21.5	22.5	25.6	24.6	16.9	14.7	9.8	15.1	25.6	5.1	-	11
Threshold Odor Number	Units	10	11	13	5	--	11	4	7	7	6	7	7	8	13	4	0	11
Total Organic Carbon	mg/L	4.6	4.8	4.0	4.3	--	8.1	6.6	5.5	4.7	4.4	4.2	5.1	5.1	8.1	4.0	0.5	11
Turbidity	NTU	4.3	7.7	4.9	4.3	--	6.7	5.4	3.4	2.2	3.9	2.7	4.5	4.6	7.7	2.2	0.00	11

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

¹mg/L=milligrams per liter, µg/L=micrograms per liter



**WATER QUALITY LABORATORY
METAL ANALYSES
PERIOD OF 01/01/2009 TO 12/31/2009
Occoquan Reservoir – Griffith Water Treatment Plant Source**

Parameter	Units ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# of Tests
Aluminum	µg/L	164	--	--	96.3	--	--	84.5	--	--	95.2	--	--	110	164	84.5	25.0	4
Antimony	µg/L	BQL	--	--	3.3	--	--	BQL	--	--	BQL	--	--	BQL	3.3	BQL	2.0	4
Arsenic	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Barium	µg/L	33.0	--	--	40.3	--	--	31.4	--	--	45.7	--	--	37.6	45.7	31.4	25.0	4
Beryllium	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Cadmium	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	0.9	4
Calcium	mg/L	30.1	--	--	31.8	--	--	16.7	--	--	35.6	--	--	28.6	35.6	16.7	1.0	4
Chromium	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Copper	µg/L	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	11
Iron	µg/L	256	480	141	209	--	552	293	93.5	42.5	210	176	402	260	552	42.5	25.0	11
Lead	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium	mg/L	7.3	--	--	8.0	--	--	5.1	--	--	7.3	--	--	6.9	8.0	5.1	1.0	4
Manganese	µg/L	89.4	112	47.6	75.6	--	134	333	360	176	146	81.1	75.2	148	360	47.6	25.0	11
Mercury	µg/L	BQL	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.50	2
Nickel	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Potassium	mg/L	6.3	--	--	4.6	--	--	3.4	--	--	7.1	--	--	5.3	7.1	3.4	1.0	4
Selenium	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon	mg/L	3.9	--	--	2.9	--	--	4.9	--	--	2.7	--	--	3.6	4.9	2.7	1.0	4
Silver	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium	mg/L	21.2	18.3	31.7	41.3	--	10.7	12.8	22.1	27.2	30.0	31.7	18.3	24.1	41.3	10.7	1.0	11
Thallium	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Zinc	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	25.0	4

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