



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2010 TO 12/31/2010
Occoquan Reservoir – Griffith Water Treatment Plant Source Water**

Parameter	Units ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Max	Min	Quant ² Limit	# of Tests
Aggressive Index Number	Units	10	11	10	10	10	10	10	11	11	11	10	11	10	11	10	-	12
Alkalinity, Bicarbonate	mg/L	26	39	30	40	50	49	54	64	67	54	55	60	49	67	26	-	12
Alkalinity, Carbonate	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Hydroxyl	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Phenolphthalein	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Total	mg/L	26	39	30	40	50	49	54	64	67	54	55	60	49	67	26	-	12
Bromide	mg/L	0.02	0.04	0.02	0.02	0.04	0.03	0.03	0.04	0.04	0.03	0.02	0.03	0.03	0.04	0.02	0.01	12
Carbon Dioxide	mg/L	5	3	5	4	8	10	8	8	7	7	17	8	8	17	3	-	12
Chloride	mg/L	31.3	45.1	28.6	30.8	36.2	32.1	32.3	39.3	38.2	29.0	26.6	28.5	33.2	45.1	26.6	5.0	12
Color	Units	92	88	117	44	25	34	38	30	32	53	33	28	51	117	25	0	12
Dissolved Oxygen	mg/L	12.6	13.0	10.1	9.1	3.3	3.9	2.9	3.3	5.0	3.7	2.9	8.0	6.5	13.0	2.9	0.0	12
Fluoride	mg/L	BQL	BQL	BQL	BQL	0.2	BQL	BQL	0.4	0.4	0.3	0.2	BQL	BQL	0.4	BQL	0.2	12
Hardness, Calcium	mg/L	30	53	32	46	54	56	57	70	69	55	55	63	53	70	30	-	12
Hardness, Total	mg/L	53	94	73	74	76	80	75	92	95	80	79	91	80	95	53	-	12
Methylene Blue Activated Substances	mg/L	--	--	--	--	--	--	0.054	--	--	--	--	--	0.054	0.054	0.054	0.050	1
N, Ammonia (Ammonia as N)	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.36	0.28	BQL	--	--	BQL	0.36	BQL	0.20	10
N, Nitrate (Nitrate as N)	mg/L	0.7	0.9	0.6	0.6	0.9	0.7	BQL	0.9	0.5	1.2	1.4	1.9	0.9	1.9	BQL	0.2	12
N, Nitrite (Nitrite as N)	mg/L	0.01	0.01	0.01	0.01	0.02	--	0.02	0.05	--	0.22	0.01	0.03	0.04	0.22	0.01	0.01	10
pH	Units	7.0	7.4	7.1	7.3	7.1	7.0	7.1	7.2	7.3	7.2	6.8	7.2	7.1	7.4	6.8	-	12
Phosphate as Phosphorous	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.10	12
Solids, Total	mg/L	138	183	137	131	166	161	159	216	203	200	191	182	172	216	131	1	12
Solids, Total Dissolved	mg/L	124	176	111	160	162	147	135	205	193	176	191	181	163	205	111	1	12
Solids, Total Suspended	mg/L	14	5	5	3	2	3	3	2	4	12	2	3	5	14	2	1	12
Specific Conductivity	µmhos/cm	184	286	192	235	269	258	249	363	355	278	285	302	271	363	184	0	12
Sulfate	mg/L	10.6	19.4	12.6	15.9	24.7	20.6	22.7	36.4	34.3	28.0	25.9	30.2	23.4	36.4	10.6	5.0	12
Temperature	°C	2.9	4.8	10.1	13.8	15.7	21.5	24.6	25.4	24.0	17.6	15.7	8.8	15.4	25.4	2.9	-	12
Threshold Odor Number	Units	4	6	8	6	6	1	7	13	39	29	31	4	13	39	1	0	12
Total Organic Carbon	mg/L	4.3	3.8	5.2	4.5	4.1	4.5	4.6	4.5	4.5	5.0	4.9	4.9	4.6	5.2	3.8	0.5	12
Turbidity	NTU	42	14	20	5.6	1.8	3.2	3.6	4.1	3.4	16	3.3	3.8	10	42	1.8	0.00	12

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

²Quant Limit = Quantitation Limit = Lowest level of measurement.



**WATER QUALITY LABORATORY
METAL ANALYSES
PERIOD OF 01/01/2010 TO 12/31/2010
Occoquan Reservoir – Griffith Water Treatment Plant Source Water**

Parameter	Units ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Max	Min	Quant ² Limit	# of Tests
Aluminum	µg/L	827	--	--	292	--	--	36.8	--	--	254	--	--	352	827	36.8	25.0	4
Antimony	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Arsenic	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Barium	µg/L	28.9	--	--	31.2	--	--	34.5	--	--	40.9	--	--	33.9	40.9	28.9	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	2.0	4
Calcium	mg/L	12.0	--	--	16.3	--	--	19.6	--	--	22.8	--	--	17.7	22.8	12.0	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	BQL	25.0	12
Iron	µg/L	1060	816	1150	396	106	138	132	254	332	448	155	239	436	1150	106	25.0	12
Lead	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium	mg/L	3.9	--	--	4.9	--	--	5.2	--	--	5.0	--	--	4.8	5.2	3.9	1.0	4
Manganese	µg/L	76.1	61.4	38.9	37.9	73.9	218	286	484	556	494	320	126	231	556	37.9	25.0	12
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	2.6	--	--	2.4	--	--	3.9	--	--	4.6	--	--	3.4	4.6	2.4	1.0	4
Selenium	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon	mg/L	5.3	--	--	3.8	--	--	3.2	--	--	3.2	--	--	3.9	5.3	3.2	1.0	4
Silver	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium	mg/L	18.8	26.9	17.9	19.5	21.4	19.7	21.4	28.2	27.9	20.1	20.1	22.2	22.0	28.2	17.9	1.0	12
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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