



Water Quality Laboratory

Inorganics Analyses

Period of 01/01/2017 TO 12/31/2017

Occoquan Reservoir - Griffith Water Treatment Plant Source Water

Date Report Generated: 12/12/2017

Parameter	Units ¹	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Quant Limit ²
Aggressive Index Number	Units	11	11	11	11	10	-	11	10	10	11	11	-	N/A
Alkalinity, Bicarbonate	mg/L	74	59	58	44	54	-	56	54	53	72	69	-	0
Alkalinity, Carbonate	mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0
Alkalinity, Hydroxyl	mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0
Alkalinity, Phenolphthalein	mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0
Alkalinity, Total	mg/L	74	59	58	44	54	-	56	54	53	72	69	-	0
Bromate	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	5
Bromide	mg/L	0.04	0.03	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.03	0.04	0.04	0.01
Carbon Dioxide	mg/L	4	5	3	4	17	-	11	11	11	11	7	-	N/A
Chloride	mg/L	57.4	49.5	50.2	46.6	45.3	-	26.9	25.4	22.6	31.8	34.5	-	5.0
Color	Units	15	30	30	40	30	-	30	25	25	15	10	-	0
Dissolved Oxygen	mg/L	11.1	9.9	10.6	8.4	5.3	-	3.6	4.2	4.0	2.4	6.0	-	0.0
Fluoride	mg/L	0.4	0.2	0.2	BQL	BQL	-	BQL	0.2	BQL	0.3	0.4	-	0.2
Hardness, Calcium	mg/L	94	73	73	50	60	-	57	54	52	74	78	-	10
Hardness, Total	mg/L	121	98	98	72	85	-	79	75	72	101	106	-	10
Methylene Blue Activated Substances	mg/L	-	-	-	-	-	-	-	BQL	-	-	-	-	0.05
N, Ammonia (Ammonia as N)	mg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	0.26	BQL	-	0.20
N, Nitrate (Nitrate as N)	mg/L	1.50	1.08	1.14	0.75	0.73	-	1.04	0.66	1.01	1.35	1.55	-	0.20
N, Nitrite (Nitrite as N)	mg/L	BQL	BQL	BQL	BQL	0.04	-	0.04	0.02	0.02	0.06	0.03	-	0.01
pH	Units	7.6	7.4	7.6	7.3	6.8	-	7.0	7.0	7.0	7.1	7.3	-	N/A
Phosphate as Phosphorous	mg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	0.10
Orthophosphate as PO ₄	mg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	0.31
Solids, Total	mg/L	282	237	246	198	195	-	170	152	150	208	216	-	1
Solids, Total Dissolved	mg/L	-	231	249	146	165	-	178	177	156	182	198	-	1
Solids, Total Suspended	mg/L	4	2	4	4	2	-	2	3	2	2	3	-	1
Specific Conductivity	µmhos/cm	471	391	368	303	327	-	266	263	237	340	366	-	0
Sulfate	mg/L	56.5	38.7	36.0	22.3	27.5	-	23.9	22.9	20.3	33.9	40.7	-	5.0
Temperature	°C	7.6	8.5	10.4	14.7	20.2	-	25.2	23.7	22.6	21.6	17.2	-	N/A
Threshold Odor Number	Units	12	7	19	14	13	-	11	12	9	8	6	-	0
Total Organic Carbon	mg/L	3.8	4.8	4.7	6.4	5.4	-	5.5	5.2	5.0	4.0	3.7	-	0.5
Turbidity	NTU	6.1	7.1	6.2	11	3.2	-	2.7	3.7	2.9	2.9	4.6	-	0.05

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, µmhos/cm = micromhos per centimeter, NTU = Nephelometric Turbidity Units

²Quant Limit = Quantitation Limit : lowest level of measurement, N/A = not applicable

- Not sampled

* Analysis pending



Water Quality Laboratory

Metal Analyses

Period of 01/01/2017 TO 12/31/2017

Occoquan Reservoir - Griffith Water Treatment Plant Source Water

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Parameter	Units ¹	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Quant Limit ²
Aluminum	µg/L	413	-	-	479	-	-	57.2	-	-	BQL	-	-	25.0
Antimony	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Arsenic	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Barium	µg/L	38.8	-	-	33.3	-	-	26.9	-	-	54.4	-	-	25.0
Beryllium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Cadmium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Calcium	mg/L	38.4	-	-	20.6	-	-	23.2	-	-	29.7	-	-	1.0
Chromium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Copper	µg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	25.0
Iron	µg/L	320	470	346	560	181	-	186	185	146	145	244	-	25.0
Lead	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Magnesium	mg/L	9.0	-	-	5.8	-	-	5.8	-	-	6.7	-	-	1.0
Manganese	µg/L	65.6	82.7	65.8	58.8	73.6	-	97.9	301	385	610	279	-	25.0
Mercury	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	0.50
Nickel	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Potassium	mg/L	5.5	-	-	3.4	-	-	4.1	-	-	5.0	-	-	1.0
Selenium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Silicon	mg/L	3.8	-	-	3.9	-	-	3.9	-	-	3.8	-	-	1.0
Silver	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Sodium	mg/L	36.6	32.0	28.8	28.0	26.3	-	18.9	17.7	16.8	23.3	25.1	-	1.0
Thallium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Zinc	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	25.0

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

²Quant Limit = Quantitation Limit : lowest level of measurement

- Not sampled

* Analysis pending