



Water Quality Laboratory

Inorganics Analyses

Period of 01/01/2019 TO 12/31/2019

Occoquan Reservoir - Griffith Water Treatment Plant Source Water

Date Report Generated: 1/06/2020

Parameter	Units ¹	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Limit ²
Aggressive Index Number	Units	10	10	11	10	10	10	10	11	10	11	11	-	N/A
Alkalinity, Bicarbonate	mg/L	35	33	41	35	32	46	55	60	67	70	65	-	0
Alkalinity, Carbonate	mg/L	0	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	-	0
Alkalinity, Phenolphthalein	mg/L	0	0	0	0	0	0	0	0	0	0	0	-	0
Alkalinity, Total	mg/L	35	33	41	35	32	46	55	60	67	70	65	-	0
Bromate	µg/L	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	5
Bromide	mg/L	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.01
Carbon Dioxide	mg/L	11	10	3	5	8	15	22	12	21	18	16	-	N/A
Chloride	mg/L	12.4	36.0	44.9	24.4	15.2	18.9	25.0	28.1	33.2	37.5	35.7	-	5.0
Color	Units	40	30	20	25	60	35	25	20	15	15	15	-	0
Dissolved Oxygen	mg/L	11.0	11.4	12.1	10.1	5.6	4.4	3.0	4.4	3.1	2.6	6.8	-	0.0
Fluoride	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.2	0.3	0.3	-	0.2
Hardness, Calcium	mg/L	29	36	45	34	28	41	52	59	70	82	79	-	10
Hardness, Total	mg/L	41	53	66	50	41	60	76	81	95	110	110	-	10
Methylene Blue Activated Substances	mg/L	-	-	-	-	-	-	BQL	-	-	-	-	-	0.05
N, Ammonia (Ammonia as N)	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.28	0.26	BQL	BQL	-	0.20
N, Nitrate (Nitrate as N)	mg/L	0.61	0.85	0.83	0.68	0.51	0.67	0.81	0.30	0.69	1.06	1.21	-	0.20
N, Nitrite (Nitrite as N)	mg/L	BQL	BQL	BQL	BQL	0.02	0.02	0.03	0.02	0.1	0.3	0.04	-	0.01
pH	Units	6.8	6.8	7.4	7.1	6.9	6.8	6.7	7.0	6.8	6.9	6.9	-	N/A
Phosphate as Phosphorous	mg/L	BQL	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	BQL	-	0.31
Solids, Total	mg/L	131	146	176	106	95	116	150	155	184	196	199	-	1
Solids, Total Dissolved	mg/L	134	180	132	122	134	110	132	164	152	286	244	-	1
Solids, Total Suspended	mg/L	4	3	2	5	2	2	3	2	1	1	4	-	1
Specific Conductivity	µmhos/cm	141	229	282	187	141	192	246	269	319	364	354	-	0
Sulfate	mg/L	12.0	13.4	16.8	12.3	8.6	14.4	18.6	22.0	31.0	40.1	43.4	-	5.0
Temperature	°C	7.6	5.9	8.7	12.5	18.6	24.2	22.5	26.0	24.2	24.7	12.8	-	N/A
Threshold Odor Number	Units	-	11	10	9	9	8	14	12	25	34	12	-	0
Total Organic Carbon	mg/L	4.8	4.3	3.0	3.8	7.1	5.5	4.6	4.4	4.1	3.6	3.9	-	0.5
Turbidity	NTU	23	17	7.3	10	14	3.4	4.2	3.2	2.3	1.4	5.1	-	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 01/01/2019 TO 12/31/2019

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Parameter	Units ¹	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Limit ²
Aluminum	µg/L	926	-	-	431	-	-	70.1	-	-	BQL	-	-	25.0
Antimony	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Arsenic	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Barium	µg/L	28.7	-	-	28.2	-	-	38.0	-	-	43.4	-	-	25.0
Beryllium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Cadmium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Calcium	mg/L	12.0	-	-	13.6	-	-	21.6	-	-	31.1	-	-	1.0
Chromium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Copper	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Iron	µg/L	1130	879	452	578	859	322	357	237	99.9	42.2	264	-	25.0
Lead	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Magnesium	mg/L	4.0	-	-	4.1	-	-	5.6	-	-	6.9	-	-	1.0
Manganese	µg/L	48.8	57.7	68.1	54.5	37.3	129	586	589	609	168	107	-	25.0
Mercury	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	0.50
Nickel	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Potassium	mg/L	2.4	-	-	2.2	-	-	3.4	-	-	5.3	-	-	1.0
Selenium	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Silicon	mg/L	5.8	-	-	4.1	-	-	4.1	-	-	4.0	-	-	1.0
Silver	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Sodium	mg/L	8.4	21.4	27.7	14.9	10.5	13.2	17.0	19.9	23.9	25.5	25.9	-	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