



Water Quality Laboratory

Inorganics Analyses

Period of 01/01/2015 TO 12/31/2015

Griffith Treatment Plant Finished Water

Date Report Generated: 12/28/2015

Parameter	MCL ¹	Units ²	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Quant Limit ³
Aggressive Index Number		Units	11	11	11	11	11	11	11	11	11	11	11	-	N/A
Alkalinity, Bicarbonate		mg/L	51	40	42	42	46	59	51	66	75	54	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	51	40	42	42	46	59	51	66	75	54	65	-	0
Bromate ⁴	10 P	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	5
Bromide		mg/L	0.02	0.02	0.03	0.02	0.01	0.02	BQL	0.01	0.02	0.01	0.02	-	0.01
Carbon Dioxide		mg/L	3	3	2	3	5	4	3	3	9	5	3	-	N/A
Chloride	250 S	mg/L	63.5	67.0	151.3	86.6	58.9	67.0	42.7	44.6	51.5	39.9	46.0	-	5.0
Chlorine, Free ⁴		mg/L	0.1	0.1	0.2	3.1	2.9	2.9	0.3	0.3	0.3	0.2	0.2	-	0.0
Chlorine, Total ⁴		mg/L	3.4	3.7	3.3	3.4	3.1	3.1	3.6	3.4	3.2	3.4	3.2	-	0.0
Color	15 S	Units	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0
Cyanide	0.2 P	mg/L	-	-	-	BQL	-	-	-	-	-	-	-	-	0.025
Dissolved Oxygen		mg/L	19.4	18.2	16.4	17.0	15.4	13.6	17.7	15.1	13.1	15.6	12.9	-	0.0
Fluoride	4.0/2.0 P/S	mg/L	0.7	0.7	0.7	0.7	0.7	0.7	BQL	0.7	0.7	0.7	0.8	-	0.2
Hardness, Calcium		mg/L	66	50	73	59	57	63	44	51	70	54	71	-	10
Hardness, Total		mg/L	92	70	101	80	64	85	53	70	90	70	93	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	BQL	-	-	-	-	-	0.05
N, Ammonia (Ammonia as N) ⁴		mg/L	0.78	0.61	0.90	BQL	BQL	BQL	0.72	0.60	0.68	0.74	0.73	-	0.20
N, Nitrate (Nitrate as N)	10 P	mg/L	1.09	0.84	1.06	0.78	0.52	0.85	0.76	0.76	1.29	1.25	1.59	-	0.20
N, Nitrite (Nitrite as N)	1 P	mg/L	0.01	0.02	BQL	BQL	BQL	BQL	0.01	BQL	BQL	BQL	BQL	-	0.01
pH	6.5 - 8.5 S	Units	7.5	7.4	7.6	7.4	7.3	7.5	7.5	7.6	7.2	7.3	7.7	-	N/A
Phosphate as Phosphorous		mg/L	0.34	0.30	0.33	-	0.27	0.29	0.28	0.33	0.27	0.32	0.26	-	0.10
Orthophosphate as PO ₄		mg/L	1.04	0.91	1.00	-	0.83	0.89	0.85	0.99	0.81	0.97	0.78	-	0.31
Solids, Total		mg/L	235	190	351	257	189	-	160	186	233	179	223	-	1
Solids, Total Dissolved	500 S	mg/L	212	-	352	254	180	-	172	186	222	204	246	-	1
Solids, Total Suspended		mg/L	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	1
Specific Conductivity		µmhos/cm	399	349	664	435	208	406	280	335	431	324	392	-	0
Sulfate	250 S	mg/L	29.9	22.7	25.1	21.1	18.3	27.8	16.0	21.1	31.3	26.3	39.0	-	5.0
Taste		Units	2	2	2	2	2	3	2	2	2	2	2	-	1
Temperature		°C	12.3	13.1	13.4	16.6	18.3	21.1	22.9	23.6	24.7	19.1	18.0	-	N/A
Threshold Odor Number	3 S	Units	1	1	4	4	8	3	1	5	3	7	7	-	0
Total Organic Carbon		mg/L	1.9	1.9	-	1.8	2.2	2.0	2.2	2.4	2.1	2.0	2.4	-	0.5
Turbidity	≤ 5 P	NTU	0.10	0.05	0.05	0.05	0.05	0.10	0.05	0.05	0.05	0.05	0.05	-	0.05

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

¹Environmental Protection Agency/Virginia Department of Health established levels for drinking water at points of entry to the water distribution system

P = Primary - enforceable, S = Secondary - non-enforceable, AL = Action Level on specific taps, MCL = Maximum Contaminant Level

²mg/L = milligrams per liter, µg/L = micrograms per liter, µmhos/cm = micromhos per centimeter, NTU = Nephelometric Turbidity Units

³Quant Limit = Quantitation Limit : lowest level of measurement, N/A = not applicable

⁴Monthly result composed from an average of parameter results for finished water points of entry to distribution system

- Not sampled

* Analysis pending



Water Quality Laboratory

Metal Analyses

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Aluminum	50 - 200 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	25.0
Antimony	6 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Arsenic	10 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Barium	2000 P	µg/L	28.6	-	-	35.8	-	-	BQL	-	-	BQL	-	-	25.0
Beryllium	4 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Cadmium	5 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Calcium		mg/L	26.8	-	-	22.1	-	-	15.5	-	-	21.1	-	-	1.0
Chromium	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Copper	1300 AL	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Lead	15 AL	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Magnesium		mg/L	7.2	-	-	6.3	-	-	4.2	-	-	5.3	-	-	1.0
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Mercury	2 P	µg/L	BQL	-	-	-	-	-	BQL	-	-	-	-	-	0.50
Nickel	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Potassium		mg/L	3.7	-	-	2.8	-	-	3.4	-	-	4.6	-	-	1.0
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Silicon		mg/L	4.1	-	-	3.5	-	-	3.6	-	-	3.4	-	-	1.0
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Sodium		mg/L	38.5	37.8	83.8	47.8	37.4	40.7	29.2	33.6	37.2	29.7	32.2	-	1.0
Thallium	2 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Zinc	5000 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	25.0

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