Water Quality Laboratory

Inorganics Analyses

Period of 01/01/2020 TO 12/31/2020

Griffith Treatment Plant Finished Water

Date Report Generated: 12/10/2020

Parameter	MCL[1]	Units[2]	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Quant Limit[3]
Aggressive Index Number		Units	11	10	11	11	11	11	11	11	11	11	11	-	N/A
Alkalinity, Bicarbonate		mg/L	55	41	50	58	43	58	60	57	54	65	46	-	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	55	41	50	58	43	58	60	57	54	65	46	-	0
Bromate[4]	10 P	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	*	5
Bromide		mg/L	0.02	0.01	0.02	0.02	BQL	BQL	BQL	0.01	BQL	0.01	BQL	-	0.01
Carbon Dioxide		mg/L	4	5	3	4	4	5	8	5	3	3	3	-	N/A
Chloride	250 S	mg/L	44.2	36.8	39.4	44.8	28.5	30.5	32.1	34.1	27.1	32.1	27.1	-	5.0
Chlorine, Free[4]		mg/L	0.1	0.2	3.5	3.1	3.3	2.9	0.2	0.3	0.3	0.3	1.3	-	0.0
Chlorine, Total[4]		mg/L	3.4	3.4	3.8	3.3	3.6	3.1	3.7	3.6	3.7	4.0	3.7	-	0.0
Color	15 S	Units	0	0	0	0	0	0	0	0	0	0	0	-	0
Dissolved Oxygen		mg/L	19.4	17.3	17.5	15.1	18.6	13.5	20.0	11.3	14.6	15.1	15.4	-	0.0
Fluoride	4.0 P / 2.0 S	mg/L	0.7	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.8	BQL**	-	0.2
Hardness, Calcium		mg/L	63	40	54	67	37	51	54	57	36	53	35	-	10
Hardness, Total		mg/L	89	57	75	92	54	71	74	74	50	71	48	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	BQL	-	-	-	-	-	0.05
N, Ammonia (Ammonia as N)[4]		mg/L	0.75	0.71	BQL	BQL	BQL	BQL	0.79	0.65	0.88	0.95	0.56	-	0.20
N, Nitrate (Nitrate as N)	10 P	mg/L	1.27	0.84	0.86	0.93	0.78	1.10	0.93	0.84	0.80	1.31	0.57	-	0.20
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	0.01
pH	6.5 - 8.5 S	Units	7.4	7.2	7.5	7.5	7.3	7.4	7.2	7.4	7.5	7.6	7.5	-	N/A
Phosphate as Phosphorous		mg/L	0.40	0.45	0.48	0.45	0.47	0.43	0.46	0.45	0.49	0.48	0.50	-	0.10
Orthophosphate as PO_4		mg/L	1.22	1.38	1.46	1.37	1.43	1.32	1.40	1.38	1.48	1.45	1.52	-	0.31
Solids, Total		mg/L	205	144	172	208	138	147	156	166	137	178	116	-	1
Solids, Total Dissolved	500 S	mg/L	208	154	182	172	128	150	134	198	128	194	176	-	1
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	1
Specific Conductivity		µmhos/cm	334	247	292	345	223	280	290	299	229	297	216	-	0
Sulfate	250 S	mg/L	30.1	17.1	25.3	34.4	14.2	22.3	21.4	26.0	13.2	22.7	13.0	-	5.0
Taste		Units	2	2	2	2	2	2	2	2	2	1	2	-	1
Temperature		°C	12.6	12.9	15.2	17.0	18.1	21.4	23.5	24.0	23.7	21.3	17.3	-	N/A
Threshold Odor Number	3 S	Units	4	5	8	1	8	8	6	6	6	8	8	-	0
Total Organic Carbon		mg/L	2.0	1.9	1.6	1.5	1.9	1.9	1.8	1.8	2.1	2.2	2.6	-	0.5
Turbidity	≤ 5 P	NTU	0.05	0.05	0.10	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10	-	0.05

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

[1]Environmental 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

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

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

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

* Analysis pending

** Out of service for maintenance

Report No: IMAR12102020073738

Water Quality Laboratory

Metal Analyses

Period of 01/01/2020 TO 12/31/2020

Griffith Treatment Plant Finished Water

Date Report Generated: 12/10/2020

Parameter	MCL[1]	Units[2]	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Quant Limit[3]
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	25.5	-	-	32.3	-	-	30.5	-	-	30.1	-	-	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	23.8	-	-	26.9	-	-	20.7	-	-	20.9	-	-	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	6.5	-	-	6.9	-	-	5.4	-	-	5.6	-	-	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	-	-	BQL	-	-	BQL	-	-	0.50
Nickel	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Potassium		mg/L	3.3	-	-	3.2	-	-	3.4	-	-	4.2	-	-	1.0
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Silicon		mg/L	3.6	-	-	2.2	-	-	3.2	-	-	5.2	-	-	1.0
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Sodium		mg/L	27.1	23.1	25.0	27.8	20.3	22.6	24.1	27.6	25.0	27.0	19.0	-	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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[2]mg/L = milligrams per liter, µg/L = micrograms per liter

[3]Quant Limit = Quantitation Limit : lowest level of measurement

- Not sampled

* Analysis pending