



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2014 TO 12/31/2014
Distribution Site Representing Griffith Treatment Plant**

Parameter	MCL ¹	Units ²	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit ³	# of Tests
Aggressive Index Number		Units	11	11	12	11	-	-	11	-	12	12	12	-	12	12	11	-	8
Alkalinity, Bicarbonate		mg/L	34	32	44	36	-	-	62	-	65	70	73	-	52	73	32	0	8
Alkalinity, Carbonate		mg/L	0	0	0	0	-	-	0	-	0	0	0	-	0	0	0	0	8
Alkalinity, Hydroxyl		mg/L	0	0	0	0	-	-	0	-	0	0	0	-	0	0	0	0	8
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	-	-	0	-	0	0	0	-	0	0	0	0	8
Alkalinity, Total		mg/L	34	32	44	36	-	-	62	-	65	70	73	-	52	73	32	0	8
Bromide		mg/L	0.02	0.02	0.03	BQL	-	-	0.01	-	0.02	0.03	0.02	-	0.02	0.03	BQL	0.01	8
Carbon Dioxide		mg/L	1	1	1	1	-	-	5	-	1	1	1	-	2	5	1	-	8
Chloride	250.0 S	mg/L	53.8	96.7	90.3	45.2	-	-	33.7	-	38.7	46.8	47.9	-	56.6	96.7	33.7	5.0	8
Chlorine, Free		mg/L	0.0	0.2	0.2	2.8	-	-	0.2	-	0.2	0.2	0.1	-	0.5	2.8	0.0	0.0	8
Chlorine, Total		mg/L	2.9	3.2	2.9	3.3	-	-	3.0	-	3.3	3.7	3.7	-	3.3	3.7	2.9	0.0	8
Color	15 S	Units	0	2	0	2	-	-	1	-	0	0	0	-	1	2	0	0	8
Dissolved Oxygen		mg/L	17.3	21.6	21.6	20.2	-	-	10.9	-	12.4	13.5	19.2	-	17.1	21.6	10.9	0.0	8
Fluoride	4.0/2.0 P/S	mg/L	0.7	0.6	0.6	0.6	0.6	-	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.6	0.2	11
Hardness, Calcium		mg/L	34	46	62	35	-	-	51	-	60	76	79	-	55	79	34	10	8
Hardness, Total		mg/L	55	69	85	46	-	-	68	-	81	102	102	-	76	102	46	10	8
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	ND	-	-	-	-	-	ND	ND	ND	0.05	1
N, Ammonia (Ammonia as N)		mg/L	0.74	0.86	0.89	BQL	-	-	0.71	-	0.88	0.81	0.75	-	0.70	0.89	BQL	0.20	8
N, Nitrate (Nitrate as N)	10 P	mg/L	0.96	0.88	0.76	0.50	-	-	0.95	-	1.12	1.61	1.48	-	1.03	1.61	0.50	0.20	8
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	0.01	8
pH	6.5-8.5 S	Units	7.9	8.1	8.1	7.9	-	-	7.4	-	8.1	8.3	8.3	-	8.0	8.3	7.4	-	8
Phosphate as Phosphorous		mg/L	0.28	0.33	0.29	0.43	-	-	0.44	-	0.32	0.31	0.34	-	0.34	0.44	0.28	0.10	8
Orthophosphate as PO4		mg/L	0.86	1.02	0.89	1.33	-	-	1.35	-	0.98	0.94	1.04	-	1.05	1.35	0.86	0.31	8
Solids, Total		mg/L	167	243	267	158	-	-	167	-	188	226	238	-	207	267	158	1	8
Solids, Total Dissolved	500 S	mg/L	-	218	264	180	-	-	178	-	162	244	240	-	212	264	162	1	7
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	1	8
Specific Conductivity		µmhos/cm	297	447	466	249	-	-	278	-	326	400	408	-	359	466	249	0	8
Sulfate	250.0 S	mg/L	15.8	19.1	24.5	12.8	-	-	20.6	-	28.2	47.2	45.1	-	26.7	47.2	12.8	5.0	8
Taste		Units	2	2	2	1	-	-	2	-	2	2	2	-	2	2	1	1	8
Temperature		°C	12.7	14.6	13.7	17.2	-	-	25.5	-	23.1	21.2	19.9	-	18.5	25.5	12.7	-	8
Threshold Odor Number	3 S	Units	6	5	8	8	-	-	4	-	3	1	1	-	5	8	1	0	8
Total Organic Carbon		mg/L	1.9	1.5	1.7	2.4	-	-	2.2	-	2.0	2.0	2.1	-	2.0	2.4	1.5	0.5	8
Turbidity	≤ 5 P	NTU	0.10	0.10	0.05	0.10	-	-	0.10	-	0.15	0.10	0.10	-	0.10	0.15	0.05	0.05	8

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



**WATER QUALITY LABORATORY
METAL ANALYSES
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Parameter	MCL ¹	Units ²	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit ³	# of Tests
Aluminum	50-200 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	25.0	4
Antimony	6 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Arsenic	10 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Barium	2000 P	µg/L	BQL	-	-	BQL	-	-	32.5	-	-	34.2	-	-	BQL	34.2	BQL	25.0	4
Beryllium	4 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Cadmium	5 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Calcium		mg/L	14.1	-	-	13.7	-	-	20.2	-	-	31.8	-	-	20.0	31.8	13.7	1.0	4
Chromium	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Copper	1300 AL	µg/L	BQL	BQL	BQL	BQL	-	-	31.7	-	27.3	BQL	BQL	-	BQL	31.7	BQL	25.0	8
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	25.0	8
Lead	15 AL	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	3.9	-	-	3.7	-	-	4.2	-	-	6.9	-	-	4.7	6.9	3.7	1.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	-	-	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	25.0	8
Mercury	2 P	µg/L	BQL	-	-	-	-	-	BQL	-	-	-	-	-	BQL	BQL	BQL	0.50	2
Nickel	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Potassium		mg/L	2.6	-	-	2.4	-	-	3.8	-	-	5.6	-	-	3.6	5.6	2.4	1.0	4
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Silicon		mg/L	4.2	-	-	3.1	-	-	3.5	-	-	3.3	-	-	3.5	4.2	3.1	1.0	4
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	5.0	4
Sodium		mg/L	29.4	49.4	53.2	29.4	-	-	26.9	-	29.9	36.6	36.7	-	36.4	53.2	26.9	1.0	8
Thallium	2 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	2.0	4
Zinc	5000 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	BQL	BQL	BQL	25.0	4

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