



**WATER QUALITY LABORATORY  
INORGANIC ANALYSES  
PERIOD OF 01/01/2008 TO 12/31/2008  
Distribution Site Representing Griffith Treatment Plant**

Parameter	MCL <sup>1</sup>	Units <sup>2</sup>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# of Tests
Aggressive Index Number		Units	11	11	11	11	10	11	11	11	10	11	11	12	11	12	10	-	12
Alkalinity, Bicarbonate		mg/L	78	70	53	58	38	45	65	77	38	64	57	63	59	78	38	-	12
Alkalinity, Carbonate		mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Total		mg/L	78	70	53	58	38	45	65	77	38	64	57	63	59	78	38	-	12
Bromide		mg/L	0.03	0.03	0.02	BQL	BQL	BQL	0.02	0.02	BQL	BQL	0.02	0.03	0.01	0.03	BQL	0.01	12
Carbon Dioxide		mg/L	5	4	3	6	6	6	3	5	4	2	1	2	4	6	1	-	12
Chloride	250.0 S	mg/L	62.0	75.5	67.5	59.8	26.5	27.0	32.3	39.5	23.7	33.6	30.9	36.7	42.9	75.5	23.7	5.0	12
Chlorine, Free		mg/L	0.2	0.2	0.1	2.6	2.4	2.5	0.3	0.4	0.2	0.3	0.2	0.2	0.8	2.6	0.1	0.0	12
Chlorine, Total		mg/L	3.1	3.2	2.7	2.8	2.6	2.7	3.0	3.1	2.7	2.8	2.9	2.7	2.9	3.2	2.6	0.0	12
Color	15 S	Units	0	0	2	1	1	1	1	1	2	0	1	1	1	2	0	0	12
Dissolved Oxygen		mg/L	19.1	21.3	26.4	24.6	16.2	14.6	13.2	19.1	12.3	16.5	20.3	18.4	18.5	26.4	12.3	0.0	12
Fluoride	4.0/2.0 P/S	mg/L	1.1	0.9	1.1	1.0	1.0	1.0	1.1	1.0	0.8	1.1	1.1	1.1	1.0	1.1	0.8	0.2	12
Hardness, Calcium		mg/L	100	89	72	87	40	68	50	70	32	60	58	72	67	100	32	-	12
Hardness, Total		mg/L	127	122	94	96	45	61	73	92	51	81	74	91	84	127	45	-	12
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	0.71	0.86	--	BQL	BQL	BQL	0.84	1.13	--	--	0.80	0.81	0.57	1.13	BQL	0.20	9
N, Nitrate (Nitrate as N)	10 P	mg/L	1.6	1.6	1.5	1.5	0.9	0.9	0.9	0.9	0.6	1.0	0.9	1.3	1.1	1.6	0.6	0.2	12
N, Nitrite (Nitrite as N)	1 P	mg/L	0.01	BQL	0.01	BQL	BQL	BQL	BQL	0.01	BQL	BQL	BQL	0.01	BQL	0.01	BQL	0.01	12
pH	6.5-8.5 S	Units	7.5	7.6	7.5	7.3	7.1	7.2	7.6	7.5	7.3	7.9	7.9	7.9	7.5	7.9	7.1	-	12
Phosphate as Phosphorous		mg/L	0.59	0.59	0.64	0.58	0.59	0.56	0.61	0.61	0.50	0.59	--	0.55	0.58	0.64	0.50	0.20	11
Solids, Total		mg/L	301	305	252	226	150	176	163	206	110	178	189	203	205	305	110	1	12
Solids, Total Dissolved	500 S	mg/L	300	263	232	218	116	166	156	200	107	179	171	202	193	300	107	1	12
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1	11
Specific Conductivity		µmhos/cm	486	490	410	388	197	215	284	367	182	320	--	341	335	490	182	0	11
Sulfate	250.0 S	mg/L	64.3	47.8	34.1	34.5	14.7	15.0	21.6	33.2	15.1	29.7	28.0	38.3	31.4	64.3	14.7	5.0	12
Taste		Units	2	3	3	2	2	2	2	2	2	3	3	2	2	3	2	1	12
Temperature		°C	17.1	13.2	17.0	18.9	18.6	22.0	24.7	24.4	24.5	20.8	19.6	16.1	19.7	24.7	13.2	-	12
Threshold Odor Number	3 S	Units	4	3	6	7	7	6	3	7	1	8	5	4	5	8	1	0	12
Total Organic Carbon		mg/L	2.7	2.6	2.7	2.6	2.0	2.2	2.5	2.3	1.9	2.3	2.3	2.5	2.4	2.7	1.9	0.5	12
Turbidity	≤5 P	NTU	0.15	0.15	0.15	0.10	0.10	0.10	0.05	0.10	0.10	0.15	0.10	0.15	0.12	0.15	0.05	0.00	12

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

<sup>1</sup> Environmental Protection Agency/Virginia Department of Health established levels for drinking water

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

<sup>2</sup> mg/L=milligrams per liter, µg/L=micrograms per liter



**WATER QUALITY LABORATORY  
METAL ANALYSES  
PERIOD OF 01/01/2008 TO 12/31/2008  
Distribution Site Representing Griffith Treatment Plant**

Parameter	MCL <sup>1</sup>	Units <sup>2</sup>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# 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	33.0	--	--	33.6	--	--	29.3	--	--	28.0	--	--	31.0	33.6	28.0	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	38.9	--	--	28.6	--	--	21.9	--	--	23.1	--	--	28.1	38.9	21.9	4.0	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	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	12
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	60	12
Lead	15 AL	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	7.7	--	--	6.6	--	--	4.5	--	--	4.9	--	--	5.9	7.7	4.5	4.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	12
Mercury	2 P	µg/L	BQL	BQL	--	--	--	--	--	--	--	--	BQL	--	BQL	BQL	BQL	0.50	3
Nickel	100 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Potassium		mg/L	8.7	--	--	4.1	--	--	4.3	--	--	5.7	--	--	5.7	8.7	4.1	0.5	4
Selenium	50 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon		mg/L	BQL	--	--	BQL	--	--	5	--	--	BQL	--	--	BQL	5	BQL	4	4
Silver	100 S	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium		mg/L	46.1	47.1	42.1	36.5	19.9	21.3	27.6	31.8	18.0	28.7	26.9	29.2	31.3	47.1	18.0	5.0	12
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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