



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2004 TO 12/31/2004
Distribution Site Representing Lorton Treatment Plants**

Parameter	MCL ¹	Units ²	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# of Tests
Aggressive Index Number		Units	--	10	11	10	11	11	--	11	11	11	11	--	11	11	10	-	9
Alkalinity, Bicarbonate		mg/L	--	34	34	33	54	60	--	62	67	56	56	--	51	67	33	-	9
Alkalinity, Carbonate		mg/L	--	0	0	0	0	0	--	0	0	0	0	--	0	0	0	-	9
Alkalinity, Hydroxyl		mg/L	--	0	0	0	0	0	--	0	0	0	0	--	0	0	0	-	9
Alkalinity, Phenolphthalein		mg/L	--	0	0	0	0	0	--	0	0	0	0	--	0	0	0	-	9
Alkalinity, Total		mg/L	--	34	34	33	54	60	--	62	67	56	56	--	51	67	33	-	9
Bromide		mg/L	--	0.02	0.01	BQL	0.01	0.01	--	0.02	0.02	BQL	BQL	--	0.01	0.02	BQL	0.01	9
Carbon Dioxide		mg/L	--	5	3	4	8	8	--	12	5	4	6	--	6	12	3	-	9
Chemical Oxygen Demand		mg/L	--	BQL	--	--	--	BQL	--	--	--	--	--	--	BQL	BQL	BQL	5.0	2
Chloride	250.0 S	mg/L	--	91.2	42.2	32.5	30.6	33.4	--	38.4	37.1	28.1	31.2	--	40.5	91.2	28.1	5.0	9
Chlorine, Free		mg/L	--	0.1	0.4	3.5	2.6	3.6	--	0.2	0.3	0.0	0.3	--	1.2	3.6	0.0	0.0	9
Chlorine, Total		mg/L	--	3.9	4.1	3.7	2.4	3.5	--	3.3	3.9	2.0	3.5	--	3.4	4.1	2.0	0.0	9
Color	15 S	Units	--	2	1	1	2	5	--	11	2	2	--	--	3	11	1	0	8
Dissolved Oxygen		mg/L	--	13.7	13.8	8.7	5.1	5.0	--	3.7	4.6	4.7	8.9	--	7.6	13.8	3.7	0.0	9
Fluoride	4.0/2.0 P/S	mg/L	--	0.7	1.0	0.9	0.9	1.2	--	1.0	1.3	1.0	1.0	0.8	1.0	1.3	0.7	0.2	10
Hardness, Calcium		mg/L	--	73	64	60	75	97	--	95	96	80	86	--	81	97	60	-	9
Hardness, Total		mg/L	--	96	82	82	99	116	--	115	115	107	--	--	102	116	82	-	8
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	--	1.21	0.90	--	BQL	0.07	--	1.04	1.12	0.97	--	--	0.76	1.21	BQL	0.05	7
N, Nitrate (Nitrate as N)	10 P	mg/L	--	1.2	1.0	0.8	1.0	1.5	--	1.0	1.3	1.0	1.3	--	1.1	1.5	0.8	0.2	9
N, Nitrite (Nitrite as N)	1 P	mg/L	--	0.02	BQL	BQL	BQL	BQL	--	BQL	BQL	0.01	BQL	--	BQL	0.02	BQL	0.01	9
pH	6.5-8.5 S	Units	--	7.1	7.4	7.2	7.1	7.2	--	7.0	7.4	7.5	7.3	--	7.2	7.5	7.0	-	9
Phosphate as Phosphorous		mg/L	--	0.51	0.48	0.46	0.37	0.37	--	0.30	0.31	0.38	0.38	--	0.40	0.51	0.30	0.20	9
Solids, Fixed		mg/L	--	188	123	109	187	168	--	171	177	152	166	--	160	188	109	1	9
Solids, Total		mg/L	--	302	206	220	269	271	--	228	247	219	203	--	241	302	203	1	9
Solids, Total Dissolved	500 S	mg/L	--	232	165	135	176	215	--	208	211	156	148	--	183	232	135	1	9
Solids, Total Suspended		mg/L	--	BQL	BQL	BQL	BQL	BQL	--	1	BQL	1	BQL	--	BQL	1	BQL	1	9
Solids, Volatile		mg/L	--	114	83	111	82	103	--	57	70	67	--	--	86	114	57	1	8
Specific Conductivity		µmhos/cm	--	408	279	197	271	321	--	334	329	274	289	--	300	408	197	0	9
Sulfate	250.0 S	mg/L	--	26.0	27.7	20.3	26.9	37.7	--	40.5	40.8	27.0	36.6	--	31.5	40.8	20.3	5.0	9
Taste		Units	--	3	3	4	2	3	--	--	3	1	3	--	3	4	1	1	8
Temperature		°C	--	12.0	15.3	17.5	22.2	23.8	--	25.0	22.6	19.7	19.0	--	19.7	25.0	12.0	-	9
Threshold Odor Number	3 S	Units	--	11	4	17	7	7	--	6	5	10	5	--	8	17	4	1	9
Total Organic Carbon		mg/L	--	2.7	1.6	2.1	2.4	1.9	--	2.2	2.2	2.5	2.5	--	2.2	2.7	1.6	0.5	9
Turbidity	≤5 P	NTU	--	0.20	0.15	0.30	0.25	0.45	--	1.00	0.70	0.55	0.20	--	0.42	1.00	0.15	0.00	9

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

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



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METAL ANALYSES
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Aluminum	50-200 S	µg/L	--	85	--	--	42	--	--	29	--	--	--	--	52	85	29	20	3
Antimony	6 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Arsenic	50 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	3
Barium	2000 P	µg/L	--	61	--	--	--	--	--	50	--	--	--	--	56	61	50	10	2
Beryllium	4 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Cadmium	5 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Calcium		mg/L	--	30.2	--	--	36.0	--	--	36.3	--	--	34.4	--	34.2	36.3	30.2	0.5	4
Chromium	100 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Copper	1300 AL	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	40	9
Iron	300 S	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	60	9
Lead	15 AL	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.29	3
Magnesium		mg/L	--	5.6	--	--	5.3	--	--	5.9	--	--	--	--	5.6	5.9	5.3	0.5	3
Manganese	50 S	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	25	9
Mercury	2 P	µg/L	--	BQL	--	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.5	2
Nickel	100 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	5	3
Potassium		mg/L	--	3.7	--	--	2.7	--	--	4.4	--	--	--	--	3.6	4.4	2.7	0.5	3
Selenium	50 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Silicon		mg/L	--	BQL	--	--	BQL	--	--	4	--	--	--	--	BQL	4	BQL	4	3
Silver	100 S	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.5	3
Sodium		mg/L	--	44.4	18.9	12.8	14.0	17.8	--	19.6	20.2	13.2	16.0	--	19.7	44.4	12.8	5.0	9
Thallium	2 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Zinc	5000 S	µg/L	--	133	--	--	117	--	--	140	--	--	--	--	130	140	117	25	3

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