



**WATER QUALITY LABORATORY  
INORGANIC ANALYSES  
PERIOD OF 01/01/2011 TO 12/31/2011  
Corbalis Treatment Plant Finished Water**

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 <sup>3</sup>	# of Tests
Aggressive Index Number		Units	11	11	11	10	11	--	11	11	11	11	11	11	11	11	10	-	11
Alkalinity, Bicarbonate		mg/L	101	73	62	43	71	--	105	97	104	99	87	61	82	105	43	-	11
Alkalinity, Carbonate		mg/L	0	0	0	0	0	--	0	0	0	0	0	0	0	0	0	-	11
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	--	0	0	0	0	0	0	0	0	0	-	11
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	--	0	0	0	0	0	0	0	0	0	-	11
Alkalinity, Total		mg/L	101	73	62	43	71	--	105	97	104	99	87	61	82	105	43	-	11
Bromate	10 P	µg/L	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL	BQL	BQL	5	48
Bromide		mg/L	0.02	0.01	0.01	BQL	0.01	--	BQL	0.02	0.01	0.01	0.01	BQL	0.01	0.02	BQL	0.01	11
Carbon Dioxide		mg/L	13	9	8	5	7	--	8	10	10	8	9	12	9	13	5	-	11
Chloride	250.0 S	mg/L	30.9	31.5	28.6	22.6	24.0	--	28.1	38.5	27.7	21.4	20.5	13.4	26.1	38.5	13.4	5.0	11
Chlorine, Free		mg/L	0.2 *	0.1 *	0.1 *	3.5 *	3.0 *	--	0.3 *	0.3 *	0.2 *	0.2 *	0.1 *	0.3 *	0.8	3.5	0.0	0.0	43
Chlorine, Total		mg/L	3.6 *	3.2 *	3.4 *	3.7 *	3.2 *	--	3.1 *	3.5 *	3.5 *	3.2 *	3.3 *	3.3 *	3.4	3.7	3.0	0.0	43
Color	15 S	Units	1	1	1	1	1	--	1	1	0	0	0	1	1	1	0	0	11
Dissolved Oxygen		mg/L	16.6	15.0	14.1	12.9	14.7	--	11.6	10.4	11.2	13.0	15.9	14.0	13.6	16.6	10.4	0.0	11
Fluoride	4.0/2.0 P/S	mg/L	0.8	0.7	0.6	0.6	0.6	--	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.6	0.2	11
Hardness, Calcium		mg/L	107	90	62	43	70	--	106	97	110	106	98	77	88	110	43	-	11
Hardness, Total		mg/L	163	133	99	65	95	--	156	159	150	149	141	99	128	163	65	-	11
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.05	1
N, Ammonia (Ammonia as N)		mg/L	0.92 *	--	0.85 *	BQL *	BQL *	--	0.72 *	0.68 *	0.73 *	0.79 *	0.79 *	0.76 *	0.62	0.96	BQL	0.20	39
N, Nitrate (Nitrate as N)	10 P	mg/L	1.5	1.6	1.1	0.8	0.9	--	1.0	0.6	2.0	1.2	1.3	1.2	1.2	2.0	0.6	0.2	11
N, Nitrite (Nitrite as N)	1 P	mg/L	0.01	0.08	0.01	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.08	BQL	0.01	11
pH	6.5-8.5 S	Units	7.2	7.2	7.2	7.2	7.3	--	7.4	7.3	7.3	7.4	7.3	7.0	7.3	7.4	7.0	-	11
Phosphate as Phosphorous		mg/L	0.43	0.41	0.35	0.40	0.41	--	0.26	0.28	0.34	0.37	0.35	0.34	0.36	0.43	0.26	0.10	11
Solids, Total		mg/L	253	226	177	119	191	--	250	283	254	223	229	186	217	283	119	1	11
Solids, Total Dissolved	500 S	mg/L	248	201	164	112	163	--	237	287	206	214	230	170	203	287	112	1	11
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	440	385	316	201	290	--	417	483	392	368	--	260	355	483	201	0	10
Sulfate	250.0 S	mg/L	56.9	49.8	30.4	13.3	24.4	--	55.7	66.2	46.5	49.7	50.5	38.4	43.8	66.2	13.3	5.0	11
Taste		Units	3	2	1	2	2	--	2	2	3	2	2	2	2	3	1	1	11
Temperature		°C	3.1	6.2	12.6	14.3	18.2	--	27.4	27.7	22.9	18.0	13.7	12.1	16.0	27.7	3.1	-	11
Threshold Odor Number	3 S	Units	4	3	6	4	4	--	6	1	5	3	7	7	5	7	1	0	11
Total Organic Carbon		mg/L	1.6	2.2	1.7	1.9	1.5	--	1.8	1.9	1.8	1.7	1.7	1.8	1.8	2.2	1.5	0.5	11
Turbidity	≤ 5 P	NTU	0.05	0.05	0.05	0.25	0.10	--	0.10	0.10	0.05	0.05	0.05	0.10	0.09	0.25	0.05	0.00	11

\* Monthly result composed from an average of parameter results for Corbalis Treatment Plant finished water points of entry to distribution system.

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 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.

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

<sup>3</sup> Quant Limit = Quantitation Limit = lowest level of measurement



**WATER QUALITY LABORATORY  
METAL ANALYSES  
PERIOD OF 01/01/2011 TO 12/31/2011  
Corbalis Treatment Plant Finished Water**

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 <sup>3</sup>	# of Tests
Aluminum	50-200 S	µg/L	BQL	--	--	BQL	--	--	53.7	--	--	BQL	--	--	BQL	53.7	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	41.0	--	--	39.5	--	--	53.7	--	--	38.3	--	--	43.1	53.7	38.3	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	46.4	--	--	19.3	--	--	42.0	--	--	41.8	--	--	37.4	46.4	19.3	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	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	11
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	11
Lead	15 AL	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	11.8	--	--	4.1	--	--	12.0	--	--	9.7	--	--	9.4	12.0	4.1	1.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	11
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	3.0	--	--	2.2	--	--	3.1	--	--	2.7	--	--	2.8	3.1	2.2	1.0	4
Selenium	50 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon		mg/L	1.5	--	--	3.0	--	--	2.6	--	--	2.2	--	--	2.3	3.0	1.5	1.0	4
Silver	100 S	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium		mg/L	21.4	18.0	16.2	13.1	15.4	--	22.1	27.6	19.0	17.4	14.7	12.0	17.9	27.6	12.0	1.0	11
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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<sup>3</sup> Quant Limit = Quantitation Limit = lowest level of measurement