



Water Authority-Cayman

Grand Cayman Public Water Supply Biannual Analysis (from Red Gate Plants)

PARAMETER - BIANNUAL ANALYSIS <i>(all results in mg/l, unless otherwise stated)</i>	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	WHO Health Based Guidelines
	29-Nov-11	14-Aug-12	05-Aug-13	06-Aug-14	19-Oct-15	20-Jun-16	10-Jul-17	05-Nov-18	17-Mar-20	20-Jul-21	
Alkalinity	2.30	5.35	2.00	1.80	1.80	2.10	1.00	5.00	n/d	2.30	none
Aluminum	<0.005	<0.005	<0.005	0.010	0.005	<0.005	<0.005	n/d	<0.024	<0.024	none
Ammonia	<0.017	<0.017	n/r	< 0.02	<0.02	<0.02	n/r	n/r	n/d	0.02	none
Bicarbonate	2.8	6.2	2.4	2.20	2.20	2.60	1.22	6.10	n/d	2.80	none
Boron	1.1	1.1	1.5	1.2	1.3	0.9	n/d	1.0	n/r	n/d	2.4
Calcium	1.6	0.7	1.8	0.8	0.4	0.2	0.8	1.2	n/d	n/r	none
Chloride	98.0	107.9	105.0	102.5	120.0	83.0	84.0	74.0	n/d	71.0	none
Copper	<0.021	<0.021	<0.02	0.03	<0.04	<0.04	<0.04	< 0.02	<0.0018	0.1	2
Hardness	4.0	3.5	7.0	4.5	3.5	2.5	5.0	8.0	n/d	7.0	none
Iron	<0.008	<0.008	0.01	< 0.02	<0.02	<0.02	<0.02	n/d	<0.017	0.1	none
Magnesium	0.0	0.4	0.6	0.6	0.6	0.5	0.7	1.0	n/d	n/r	none
Nitrate as N	<0.1	<0.1	<0.1	< 0.1	<0.1	0.3	n/d	n/d	n/d	<0.1	50 as NO <sub>3</sub> <sup>-</sup>
Orthophosphate	1.56	1.10	1.10	0.94	1.1	1.0	1.0	1.5	1.6	1.7	none
Sodium	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	42.0	n/d	none
Sulphate	10.6	8.7	10.9	4.7	7.7	7.7	4.1	7.1	n/d	7.6	none
Sulfide	<0.002	<0.002	<0.01	< 0.01	<0.01	<0.01	<0.01	n/d	n/d	n/d	none
Zinc	0.461	0.438	0.420	0.34	0.40	0.38	0.37	0.51	0.46	0.50	none
<b>PARAMETER - DAILY ANALYSIS</b> <i>(all results in mg/l, unless otherwise stated)</i>											
Total dissolved solids	170	169	210	156.9	169	165	140	125	116	121	none
Electrical conductivity $\mu$ S/cm	354	353	370	361	352	322	322	262	243	255	none
Total chlorine residual	0.59	0.66	0.65	0.53	0.50	0.53	0.62	0.58	0.57	0.57	none
Free chlorine residual	0.56	0.56	0.59	0.51	0.50	0.44	0.51	0.55	0.50	0.46	$\geq 0.5$
pH units	7.74	7.78	7.07	7.51	7.82	7.39	7.51	7.45	7.89	7.55	none
Total coliform bacteria cfu/100ml	BDL	<1	<1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	not detected in 100mL
<i>E. coli</i> cfu/100 ml	BDL	<1	<1.0	< 1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	not detected in 100mL
Heterotrophic Plate Count cfu/ml	0	0	<0.1	< 0.1	<0.1	<0.1	<0.1	1	<0.1	<0.1	none

NOTE: Samples collected @ Red Gate Reservoir Site; n/d = not done; n/a = not applicable; n/r = not reportable; BDL=Below Detection Limit  
Results below detection limit are reported as "<" and the detection limit.

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