

Cayman Water

Jan-Dec 2020 Water Quality Data

Parameter	WAC MCL	US Federal MCL	WHO guideline MCL	System field samples	ACWW	West Bay	Major Sources
Microbiological contaminants							
Total coliform bacteria	0 (a)	5% (b)	5% (c)	0.0%	1.6%	1.6%	naturally present in the environment (f)
Faecal coliform bacteria	0 (a)	N/A	0 (a)	0.0%	1.6%	1.6%	naturally present in the environment
Disinfection byproducts							
Total trihalomethanes (ppb)	N/E	80	1000		1.10	1.85	by-product of drinking water chlorination
Disinfectants							
Chlorine, free residual (ppm) (d)	0.2-0.5	MRDL-4	N/A		0.32	0.31	water additive used to control microbes
Volatile organic contaminants							
16 US regulated compounds	N/E	62-550-310 (4a)	various		U	U	various sources including industrial pollution
Inorganic contaminants							
Total dissolved solids (ppm) (d)	≤200	N/A	1000		154	147	residual from desalination process
Hydrogen Sulfide (ppm) (d)	≤0.01	N/A	0.05		0	0	residual from post treatment process
Copper (ppm) (e)	N/E	1.3	1		<0.05	<0.05	corrosion by-product
Zinc (ppm) (e)	N/E	N/A	3		0.15	0.14	corrosion inhibitor additive
Iron (ppm) (e)	N/E	N/A	0.3		<0.05	<0.05	corrosion by-product
Sodium (ppm) (e)	N/E	N/A	200		57	56	residual from desalination process
Chloride (ppm) (e)	N/E	N/A	250		93	96	residual from desalination process
Other parameters							
pH (d)	6.5-8.0	N/A	< 8		7.15	7.23	adjusted to neutral (7) in finishing process
Conductivity (µS/cm) (d)	≤400	N/A	N/A		308	291	is a function of TDS

Notes

- a) No colony forming units in any 100 ml sample.
- b) The US Federal MCL for coliform bacteria must not show the presence of coliform bacteria in ≥5% of the monthly samples taken.
- c) The WHO MCL for coliform bacteria must not show the presence of coliform bacteria in ≥5% of the yearly samples taken.
- d) Average of all daily sample results for the year.
- e) From monthly overseas lab testing samples for the year.
- f) It is possible for samples to be contaminated from exterior sources during the sampling process such as the tap, the sampling personnel or sample containers.

US and WHO MCL's take this into account by setting an allowance for positive test results. WAC does not. CW resamples positive results the following day.

If the resample results are negative, CW deems the initial sample as compromised. CW however reports all positive samples whether deemed compromised or not in the percentage calculation.

Abbreviations

µS/cm micro-Siemens per centimetre

ACWW- Abel Castillo Water Works

MCL- Maximum contaminant level

MRDL- Maximum residual disinfection level

N/A- Not applicable

N/E- Not established

ppb- parts per billion

ppm- parts per million

U- below the detectable limit of the test method

WAC- Water Authority Cayman

WHO- World Health Organization