ANALYTICAL DATA AND APPROXIMATE DISTRIBUTION FOR CAPE TOWN DRINKING WATER
Sample period: 1 June 2014 to 31 May 2015

The City of Cape Town has been awarded a 2012 Blue Drop Certificate for the quality of its drinking water by the then Department Water Affairs (DWA) now Department Water and Sanitation (DWS). This assures Cape Town's residents that their tap water is safe to drink and complies with stringent quality checks. The City of Cape Town obtained the highest score of 98,14% in the Western Cape and is one of ten municipalities in the Western Cape that achieved Blue Drop status. The City of Cape Town also received a Platinum Blue Drop Award for its consistent excellent performance for four years and remains in the top performing group of water service authorities in South Africa.

To qualify for a Blue Drop Certificate a water service authority must score at least 95% in meeting the criteria set by DWS. These include the maintenance and monitoring of the catchment and storage areas and facilities, the pipeline and distribution systems and the water treatment facilities and processes. The water quality has to meet the standard from where it is stored until it is used by the consumer. Adequate staffing with suitable skills coupled to a training regime also forms part of the certification process which is done annually by virtue of a physical audit conducted by DWS officials.

Below are the results for the water quality provided across the City of Cape Town for the indicated period as well as the distribution areas normally linked to the water treatment plants supplying the city. The annual publication of the water quality results is also a requirement of the Blue Drop certification process.

PARAMETERS	SANS 241: 2011 Specs	BLACKHEATH SUPPLY Typical analysis (max 430 Mℓ/day)	FAURE SUPPLY Typical analysis (max 500 Mℓ/day)	KLOOF NEK SUPPLY Typical analysis (max 22.5 Mℓ/day)	STEENBRAS SUPPLY Typical analysis (max 150 Mℓ/day)	VOËLVLEI SUPPLY Typical analysis (max 273 Mℓ/day)	WEMMERSHOEK SUPPLY Typical analysis (max 250 Mℓ/day)	BROOKLANDS SUPPLY Typical analysis (max 5.5 Mℓ/day)	HELDERBERG SUPPLY Typical analysis (max 12 Mℓ/day)	WITZANDS SUPPLY Typical analysis max 15 Mℓ/day	CONSTANTIA NEK SUPPLY Typical analysis max 3 Mℓ/day
PHYSICAL & AESTHETIC DETERMINANDS											
Residual chlorine mg/ℓ	≤5	0.50	0.90	0.77	0.69	0.63	1.00	0.93	0.66	0.84	0.10
Colour mg/ℓ Pt	≤15	5	5	5	6	5	6	6	5	5	6
Conductivity mS/m	≤170	12.9	14.7	17.8	14.9	14.6	9.4	44.6	16.2	20.2	16.7
Odour	Inoffensive	1.0	1.0	-	1.0	1.0	1.0	-	1.0	1.0	-
Taste	Inoffensive	1.0	1.0	-	1.0	1.0	1.0	-	1.0	1.0	-
Total Dissolved Solids mg/ℓ	≤1200	86.6	98.6	119.4	99.7	97.6	62.7	298.6	108.4	135.5	112.0
Turbidity (Tiamo) NTU	Operational ≤1 Aesthetic ≤5	0.72	0.64	0.63	0.73	1.01	0.80	0.60	1.06	0.91	1.71
pH (pH units)	≥5.0 to ≤9.7	8.47	8.49	8.52	8.66	8.10	8.53	8.63	8.25	7.54	8.55
UV 300nm/4cm	-	0.040	0.040	0.050	0.070	0.070	0.060	0.100	0.040	0.091	0.057
HARDNESS (mg/ℓ)											
Hardness (Total) as CaCO3	-	41	46	45	39	36	30	118	39	52	37
LANGELIER											
Langelier Index	-	-0.62	-0.49	-0.47	-0.59	-1.05	-1.05	-0.46	-1.00	-1.17	-0.27
CHEMICAL - MACRO DETERMINANDS											
(Nitrate and nitrite) as N mg/ℓ	≤11.9	0.2	0.2	0.2	0.2	0.2	0.2	-	0.2	0.2	-
Nitrate as N mg/ℓ	≤11.0	0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	<0.1	-
Nitrite as N mg/ℓ	≤0.9	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	<0.1	-
Silica as SiO2 mg/ℓ	-	0.8	0.7	0.7	0.9	0.8	1.2	0.8	1.9	1.2	0.8
Sulphate as $SO4^{2-}$ mg/ℓ	Aesthetic ≤250 Acute health ≤500	13.6	18.9	29.9	16.4	18.7	4.8	105.6	11.5	23.7	29.4
Fluoride as F^- mg/ℓ	≤1.5	0.08	0.07	0.08	0.08	0.07	0.09	0.05	0.09	0.10	0.10
Ammonia as N mg/ℓ	≤1.5	<0.4	<0.4	-	<0.4	<0.4	<0.4	-	<0.4	<0.4	-
Chloride as Cl^- mg/ℓ	≤300	12.8	14.0	15.9	18.0	20.0	9.3	53.0	24.8	29.9	26.0
Sodium as Na mg/ℓ	≤200	5.6	6.1	9.9	9.5	9.1	3.9	25.6	11.0	13.9	11.2
Zinc as Zn mg/ℓ	≤5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Alkalinity as CaCO3 mg/ℓ	-	27.8	28.0	29.2	25.1	17.0	27.0	10.1	26.1	28.0	17.5
Calcium as Ca mg/ℓ	-	14.1	16.4	16.3	13.4	10.6	10.6	40.8	12.1	16.3	13.2
Potassium as K mg/ℓ	-	0.46	0.48	0.22	0.40	0.65	0.26	0.83	0.71	1.00	0.37
Magnesium as Mg mg/ℓ	-	1.29	1.28	0.95	1.28	2.18	0.77	3.86	2.13	2.77	1.09
CHEMICAL - MICRO DETERMINANDS											
Antimony as Sb µg/ℓ	≤20	<1	<1	<1	2.6	<1	3.9	-	2.0	<1	<1
Arsenic as As µg/ℓ	≤10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium as Cd µg/ℓ	≤3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Chromium (Total) as Cr µg/ℓ	≤50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt as Co µg/ℓ	≤500	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Copper as Cu µg/ℓ	≤2000	<10	<10	<10	<10	<10	<10	<10	14.9	22.8	10.0
Cyanide as CN^- µg/ℓ	≤70	<10	<10	-	<10	<10	<10	-	<10	<10	-
Iron as Fe µg/ℓ	Chronic Health ≤2000 Aesthetic ≤300	54.5	60.9	51.4	61.5	87.0	77.3	<50	64.8	80.4	<50
Lead as Pb µg/ℓ	≤10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Manganese as Mn µg/ℓ	Chronic Health ≤500 Aesthetic ≤100	5.5	5.0	7.5	8.4	5.1	11.6	5.3	7.3	12.2	9.5
Mercury as Hg µg/ℓ	≤6	<5	<5	<5	<5	<5	<5	-	<5	<5	<5
Nickel as Ni µg/ℓ	≤70	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Selenium as Se µg/ℓ	≤10	<1	<1	<1	<1	<1	<1	-	<1	<1	<1
Uranium as U µg/ℓ	≤15	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vanadium as V µg/ℓ	≤200	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aluminium as Al µg/ℓ	≤300	95.2	54.7	108.3	151.2	52.8	147.6	81.9	97.8	<50	209.9
CHEMICAL - ORGANIC DETERMINANDS											
Total Organic Carbon mg/ℓ	≤10	2.3	2.1	2.4	2.5	2.4	2.1	2.9	2.3	2.7	2.4
Total THM mg/ℓ	≤0.56	0.02	0.03	0.04	0.01	0.05	0.02	0.02	0.08	0.09	0.09
Microcystin as LR µg/ℓ	≤1	-	-	-	-	<0.15	-	-	-	-	-
Phenols µg/ℓ	≤10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
MICROBIOLOGICAL DETERMINANDS											
E coli Count/100 mℓ	Not detected	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cytopathogenic viruses Count/10ℓ	Not detected	-	-	-	-	-	-	-	-	-	-
Cryptosporidium Count/10ℓ	Not detected	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Giardia Count/10ℓ	Not detected	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Coliforms Count/100 mℓ	≤10	1	1	1	1	1	2	1	1	1	1
Heterotrophic Plate Count/mℓ	≤1000	2	4	39	22	99	15	10	12	1	3

APPROXIMATE AREAS OF WATER DISTRIBUTION (variable due to optimising of raw water resources, seasonal variations, Water Treatment Plant/Reservoir service ability, system operations and parameters also variable due to mixing in the distribution system)

BLACKHEATH: Cape Flats, Mitchells Plain, Muizenberg, Fish Hoek, Southern Suburbs and Southern Suburbs (high lying areas on mountainside and Constantia valley), City Bowl, Bellville, Kuils River, Blue Downs, Eerste River, Khayelitsha, Durbanville, Elsies River, Somerset West, Strand, Nyanga/Gugulethu
BROOKLANDS: Simon's Town
CONSTANTIA NEK: Hout Bay (water blended with supplies from Steenbras and/or Blackheath)
FAURE: Cape Flats, Mitchells Plain, Muizenberg, Fish Hoek, Southern Suburbs, Khayelitsha, Somerset West, Strand, Philippi
HELDERBERG: Somerset West
KLOOF NEK: Camps Bay, Sea Point, Tamboers Kloof/Gardens (high lying areas)
STEENBRAS: Southern Suburbs (high lying areas on mountainside and Constantia valley), Somerset West/Gordon's Bay (high lying areas), Fish Hoek and the Far South Peninsula
VOËLVLEI: Northern Suburbs (Atlantis to Milnerton), Epping, City Bowl, Green Point, Durbanville/Kraaifontein (upper areas)
WEMMERSHOEK: Paarl to Bellville, Northern Suburbs, City Bowl, Durbanville, Kraaifontein
WITZANDS: Atlantis (water blended with supplies from Voëlvlei)

ACHMAT EBRAHIM
CITY MANAGER
186/2015

blue drop
CERTIFIED
Excellent drinking water quality
MANAGEMENT

CITY OF CAPE TOWN
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STAD KAAPSTAD

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