

**CSIR WATER QUALITY AUDIT RESULTS OF WATER SUPPLIED BY RAND WATER**

CSIR randomly selected sample point	D_HEILBRON	D_Q5	D_SASOL	D_DA6	M_A21	
Sampling area	Ngwathe	Johannesburg	Metsimaholo	Emfuleni	Metsimaholo	
Sampling date : 18/01/2017					Report date:27/01/2017	
Parameter	Units of measure	Specifications (based on SANS241: 2015)		No of results	Achieved compliance levels	
		Required compliance			Class I	
		99% Class I				

**SPECIFICATIONS**

**Chemical and Physical properties**

Colour	(mg / l as Pt)	< 15	5	100.00%
Conductivity	(mS / m)	< 170	5	100.00%
pH	(pH units)	≥ 5.0 to ≤ 9.5	5	100.00%
Turbidity	(NTU)	< 5	5	100.00%
Total Dissolved Solids	(mg / l)	< 1200	5	100.00%
Taste	(TTN)	< 5	5	100.00%
Odour	(TON)	< 5	5	100.00%

**Organic Determinants**

Total Trihalomethanes	(ug / l)	< 1	5	100.00%
Phenols as C <sub>6</sub> H <sub>5</sub> OH	(ug / l)	< 10	5	100.00%
Dissolved Organic Carbon	(mg / l)	N/A	5	100.00%

**Micro Elements**

Antimony	(µg / l as Sb)	< 20	5	100.00%
Boron	(µg / l as B)	2400	5	100.00%
Barium	(µg / l as Ba)	700	5	100.00%
Arsenic	(µg / l as As)	10	5	100.00%
Cadmium	(µg / l as Cd)	3	5	100.00%
Chromium (Total)	(µg / l as Cr)	< 50	5	100.00%
Cobalt	(µg / l as Co)	N/A	5	100.00%
Cyanide (Recoverable)	(µg / l as CN)	< 200	5	100.00%
Lead	(µg / l as Pb)	< 10	5	100.00%
Mercury	(µg / l as Hg)	< 6	5	100.00%
Nickel	(µg / l as Ni)	< 70	5	100.00%
Selenium	(µg / l as Se)	< 40	5	100.00%
Uranium	(µg / l as U*)	< 30	5	
Vanadium	(µg / l as V)	N/A	5	100.00%

**Macro Elements & Miscellaneous Determinants**

Aluminium	(mg / l as Al)	< 0.3	5	100.00%
Ammonia	(mg / l as N)	< 1.5	5	100.00%
Calcium	(mg / l as Ca)	N/A	5	100.00%
Chloride	(mg / l as Cl)	< 300	5	100.00%
Copper	(mg / l as Cu)	< 2	5	100.00%
Fluoride	(mg / l as F)	< 1.5	5	100.00%
Iron	(mg / l as Fe)	< 2	5	100.00%
Magnesium	(mg / l as Mg)	N/A	5	100.00%
Manganese	(mg / l as Mn)	< 0.4	5	100.00%
Nitrate	(mg / l as N)	< 11	5	100.00%
Nitrite	(mg / l as N)	< 0.9	5	100.00%
Nitrate & Nitrite	(mg / l as N)	< 1	5	100.00%
Potassium	(mg / l as K)	N/A	5	100.00%
Sodium	(mg / l as Na)	< 200	5	100.00%
Sulphate	(mg / l as SO <sub>4</sub> )	< 500	5	100.00%
Zinc	(mg / l as Zn)	< 5	5	100.00%

**Microbiological**

E. coli	(cfu per 100 ml)	minimum of 99% of the original results shall be non-detected	5	100.0%
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**Other Determinants as required by supply contract**

Free chlorine and monochloramine	(mg / l)	≥ 0.2	5	100.0%
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**Notes :**  
(1) Specification date of effect : March 2015

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