



**GREATER TZANEEN MUNICIPALITY
WATER SERVICES LABORATORY**

Tzaneen Cetral Laboratory
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Ref no:ALL/ Q1/ 21-22/3/ July- Sept 2021

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

Date Sampled: Averaged: 1st Quarter 2020/2021

Date analysed: Averaged Quartely



Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	7.83	7.38	6.93	8.18	> 5- ≤ 9.7 Operational
Turbidity (NTU)	0.40	0.67	0.49	0.78	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	2.75	2.69	3.33	1.34	≤ 15 Aesthetic
Conductivity (mS/m)	6.97	15.57	27.30	4.40	≤ 170 Aesthetic
Temperature °C	21.41	21.96	22.93	21.75	N/A
Total Dissolved Solids (mg/l)	45.31	101.23	177.45	28.55	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	27.13	38.20	90.00	15.67	N/A
Total Hardness (mg/l)	35.00	43.80	119.29	18.33	N/A
Calcium Hardness as CaCO ₃ (mg/l)	17.88	21.00	66.00	9.00	N/A
Calcium as Ca (mg/l)	7.16	8.41	26.42	3.60	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	17.13	22.80	53.29	9.33	N/A
Magnesium as Mg (mg/l)	4.16	5.54	12.94	2.27	N/A
Sodium as (Na) (mg/l)	8.30	10.13	16.15	6.29	≤ 200 Aesthetic
Potassium as K (mg/l)	0.95	1.10	0.44	0.64	N/A
Chloride as Cl (mg/l)	11.61	16.59	18.13	7.74	≤ 300 Aesthetic
Fluoride as F (mg/l)	0.28	0.06	0.05	0.00	≤ 1.5 Chronic Health
Sulphate as SO ₄ (mg/l)	0.25	0.40	7.43	0.67	≤ 250 Aesthetic ≤ 500 Acute Health-1
Nitrate as N (mg/l)	0.91	1.56	1.74	0.77	≤ 11 Acute health-1
Iron as Fe (µg/l)	93.63	34.00	31.57	65.00	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	0.00	4.40	25.29	6.67	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0.04	0.03	0.17	0.00	≤ 1.5 Aesthetic
Aluminium as Al (µg/l)	21.75	16.40	18.43	8.00	≤ 300 Operational
Zinc as Zn (mg/l)	0.03	0.09	0.10	0.03	≤ 5 Aesthetic
Langelier Sat. Index	-0.95	-1.47	-0.75	-1.05	N/A
Ryznar Index	9.84	10.29	8.57	10.49	N/A
Corrosivity Ratio	0.61	0.49	0.34	0.31	N/A
Free Res. Chlorine (mg/l)	0.15	0.13	0.09	0.31	≤ 5 Chronic Health
E.Coli (count/100ml)	0.00	0.00	0.00	0.00	0 Acute Health-1
Total Coliform Bacteria(count/100ml)	0.00	0.00	0.00	0.00	≤ 10 Operational
Heterotrophic plate Count (count/ml)	0.00	0.00	0.00	0.00	≤ 1000 Operational

= Outside limit

Signature : 

Date : 06/10/21