



**GREATER TZANEEN MUNICIPALITY
WATER SERVICES LABORATORY**

Tzaneen Central Laboratory
Portion 7 Dornhoek farm 535 LT
Tel:+27 15 307 8217/9
Fax :+27 15 307 8246

Ref no:ALL/ Q1/ 24-25/1/ July- Sept 2024

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

Date Sampled: Averaged: 1st Quarter 2024/2025

Date analysed: Averaged Quartely

Jul-24



Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	8,28	7,83	6,80	8,25	> 5- ≤ 9.7 Operational
Turbidity (NTU)	0,20	0,88	0,34	0,76	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	3,13	0,75	3,14	0,00	≤ 15 Aesthetic
Conductivity (mS/m)	5,43	12,20	24,40	2,95	≤ 170 Aesthetic
Temperature °C	20,23	21,53	19,93	19,10	N/A
Total Dissolved Solids (mg/l)	34,96	79,14	158,59	19,16	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	31,63	78,80	150,00	17,67	N/A
Total Hardness (mg/l)	29,13	78,40	155,00	15,00	N/A
Calcium Hardness as CaCO ₃ (mg/l)	15,88	51,40	74,00	5,33	N/A
Calcium as Ca (mg/l)	6,36	20,58	29,63	2,13	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	13,25	27,00	81,00	5,67	N/A
Magnesium as Mg (mg/l)	3,22	6,56	19,67	1,38	N/A
Sodium as (Na) (mg/l)	11,39	27,37	39,39	12,92	≤ 200 Aesthetic
Potassium as K (mg/l)	1,03	1,00	0,70	0,63	N/A
Chloride as Cl (mg/l)	12,23	35,73	19,14	14,18	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,16	0,08	0,41	0,06	≤ 1.5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,13	0,00	18,00	0,33	≤ 250 Aesthetics ≤ 500 Acute Health-1
Nitrate as N (mg/l)	0,98	0,92	2,40	3,20	≤ 11 Acute health-1
Iron as Fe (µg/l)	30,13	58,40	11,00	59,33	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	5,25	15,00	0,00	5,33	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,16	0,09	0,01	0,00	≤ 1.5 Aesthetic
Aluminium as Al (µg/l)	69,38	31,80	24,00	3,00	≤ 300 Operational
Zinc as Zn (mg/l)	0,03	0,00	0,00	0,23	≤ 5 Aesthetic
Langelier Sat. Index	-0,57	-0,90	-0,95	-1,64	N/A
Ryznar Index	9,43	9,12	8,53	11,53	N/A
Corrosivity Ratio	0,60	0,50	0,56	0,59	N/A
Free Res. Chlorine (mg/l)	0,75	0,69	0,88	0,61	≤ 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)	0,50	0,00	0,86	0,00	≤ 1000 Operational

 = Outside limit

Signature : 

Date : 22/07/24



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Ref no:ALL/ Q1/ 24-25/2/ July- September 2024

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

Date Sampled: Averaged: 1st Quarter 2024/2025

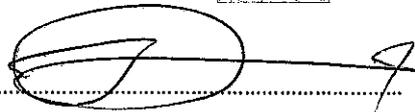
Date analysed: Averaged Quartely 24-Aug



blue drop
CERTIFICATION
drinking water quality
REGULATION

Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	8,45	7,65	7,09	7,79	> 5 - ≤ 9,7 Operational
Turbidity (NTU)	0,21	0,90	0,19	0,51	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	1,19	2,28	1,57	1,00	≤ 15 Aesthetic
Conductivity (mS/m)	6,00	11,80	23,28	2,92	≤ 170 Aesthetic
Temperature °C	23,60	21,29	20,61	20,52	N/A
Total Dissolved Solids (mg/l)	38,97	76,60	151,29	18,94	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	26,32	61,60	137,00	17,67	N/A
Total Hardness (mg/l)	27,82	69,20	140,00	15,00	N/A
Calcium Hardness as CaCO ₃ (mg/l)	16,25	26,60	70,15	5,33	N/A
Calcium as Ca (mg/l)	6,51	10,65	28,09	2,13	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	11,57	42,60	69,86	5,67	N/A
Magnesium as Mg (mg/l)	2,81	10,34	16,97	1,38	N/A
Sodium as (Na) (mg/l)	10,36	23,11	37,89	12,92	≤ 200 Aesthetic
Potassium as K (mg/l)	0,69	1,22	0,76	0,63	N/A
Chloride as Cl (mg/l)	13,52	22,55	23,60	14,18	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,13	0,20	0,28	0,06	≤ 1,5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,19	0,40	14,36	0,33	≤ 250 Aesthetic ≤ 500 Acute Health-1
Nitrate as N (mg/l)	1,03	1,16	1,99	3,20	≤ 11 Acute health-1
Iron as Fe (µg/l)	19,88	55,60	17,00	59,33	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	3,25	28,00	4,86	5,33	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,04	0,00	0,01	0,00	≤ 1,5 Aesthetic
Aluminium as Al (µg/l)	65,44	34,00	73,29	3,00	≤ 300 Operational
Zinc as Zn (mg/l)	0,03	0,09	0,04	0,23	≤ 5 Aesthetic
Langelier Sat. Index	-0,39	-1,15	-1,72	-1,64	N/A
Ryznar Index	9,25	9,75	9,88	11,53	N/A
Corrosivity Ratio	0,60	0,70	0,75	0,59	N/A
Free Res. Chlorine (mg/l)	0,21	0,05	0,16	0,11	≤ 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)	0,69	0,40	3,00	0,00	≤ 1000 Operational

= Outside limit

Signature : 

Date : 12/08/24



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Ref no:ALL/ Q1/ 24-25/3/ July- September 2024

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

Date Sampled: Averaged: 1st Quarter 2024/2025

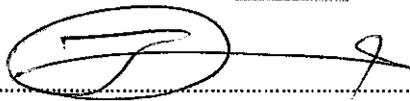
Date analysed: Averaged Quarterly September 2024



blue drop
CERTIFICATION
drinking water quality
REGULATION

Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	8,20	7,54	7,16	7,43	> 5 - ≤ 9,7 Operational
Turbidity (NTU)	0,28	0,80	0,62	0,34	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	1,46	2,72	3,00	0,67	≤ 15 Aesthetic
Conductivity (mS/m)	5,33	11,71	18,40	3,09	≤ 170 Aesthetic
Temperature °C	23,38	22,37	20,93	20,88	N/A
Total Dissolved Solids (mg/l)	34,60	76,05	105,29	20,06	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	26,04	61,60	60,00	17,67	N/A
Total Hardness (mg/l)	27,54	69,20	56,00	15,0	N/A
Calcium Hardness as CaCO ₃ (mg/l)	13,67	26,60	27,00	5,33	N/A
Calcium as Ca (mg/l)	5,47	10,65	10,82	2,13	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	13,88	42,60	29,00	5,67	N/A
Magnesium as Mg (mg/l)	3,37	10,34	7,04	1,38	N/A
Sodium as (Na) (mg/l)	10,78	23,11	22,99	12,92	≤ 200 Aesthetic
Potassium as K (mg/l)	0,66	1,22	1,10	0,63	N/A
Chloride as Cl (mg/l)	12,67	22,55	20,60	14,18	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,24	0,20	0,00	0,06	≤ 1,5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,13	0,40	3,00	0,33	≤ 250 Aesthetic ≤ 500 Acute Health-1
Nitrate as N (mg/l)	0,92	1,16	1,60	3,2	≤ 11 Acute health-1
Iron as Fe (µg/l)	18,92	55,60	15,00	59,33	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	2,50	28,00	0,00	5,33	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,03	0,00	0,00	0	≤ 1,5 Aesthetic
Aluminium as Al (µg/l)	60,79	34,00	0,00	3	≤ 300 Operational
Zinc as Zn (mg/l)	0,05	0,09	0,30	0,23	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,18	0,05	0,29	0,14	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria(count/100ml)	0,00	0,00	0,00	0	≤ 10 Operational
Heterotrophic plate Count (count/ml)	0,46	0,20	0,00	0	≤ 1000 Operational

 = Outside limit

Signature : 

Date : 15/09/24



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Ref no:ALL/ Q2/ 24-25/1/ October- December 2024

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

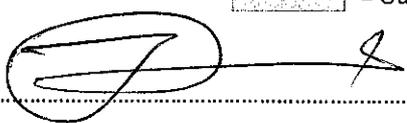
Date Sampled: Averaged: 2nd Quarter 2024/2025

Date analysed: Averaged Quartely 24-Oct



Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	9,05	7,53	7,25	7,25	> 5- ≤ 9,7 Operational
Turbidity (NTU)	0,17	0,49	0,02	0,02	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	1,25	1,90	0,00	0	≤ 15 Aesthetic
Conductivity (mS/m)	7,70	11,24	4,72	4,72	≤ 170 Aesthetic
Temperature °C	23,41	22,67	22,93	22,93	N/A
Total Dissolved Solids (mg/l)	50,04	73,08	30,69	30,69	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	29,63	61,60	20,00	20	N/A
Total Hardness (mg/l)	27,25	69,20	25,30	25,3	N/A
Calcium Hardness as CaCO ₃ (mg/l)	17,88	26,60	10,00	10,0	N/A
Calcium as Ca (mg/l)	7,16	10,65	4,00	4,00	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	9,38	42,60	15,33	15,33	N/A
Magnesium as Mg (mg/l)	2,28	10,34	3,72	3,72	N/A
Sodium as (Na) (mg/l)	8,89	23,11	6,94	6,94	≤200 Aesthetic
Potassium as K (mg/l)	1,94	1,22	0,60	0,6	N/A
Chloride as Cl (mg/l)	11,52	22,55	7,56	7,56	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,07	0,20	0,06	0,06	≤ 1,5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,13	0,40	0,33	0,33	≤250 Aesthetic≤500 Acute Health-1
Nitrate as N (mg/l)	0,55	1,16	0,70	0,7	≤ 11 Acute health-1
Iron as Fe (µg/l)	25,38	55,60	58,67	58,67	≤300Aesthetic ≤2000 Chronic Health
Manganese as Mn (µg/l)	0,25	28,00	4,00	4,00	≤100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,03	0,00	0,03	0,03	≤ 1,5 Aesthetic
Aluminium as Al (µg/l)	40,75	34,00	0,00	0,0	≤300 Operational
Zinc as Zn (mg/l)	0,06	0,09	0,02	0,02	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,14	0,03	0,37	0,37	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria(count/100ml)	0,00	0,60	0,00	0	≤10 Operational
Heterotrophic plate Count (count/ml)	4,38	2,00	0,00	0	≤1000 Operational

 = Outside limit

Signature : 

Date : 30/10/24



GREATER TZANEEN MUNICIPALITY
WATER SERVICES LABORATORY

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Ref no: ALL/ Q2/ 24-25/2/ October- December 2024

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

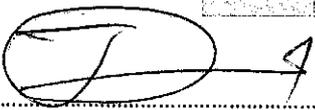
Date Sampled: Averaged: 2nd Quarter 2024/2025

Date analysed: Averaged Quartely 24-Nov



Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	8,74	7,21	6,69	7	> 5- ≤ 9.7 Operational
Turbidity (NTU)	0,26	0,06	0,04	0,09	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	1,00	0,00	2,24	1	≤ 15 Aesthetic
Conductivity (mS/m)	7,57	15,04	23,90	3,9	≤ 170 Aesthetic
Temperature °C	25,20	24,14	26,40	24,17	N/A
Total Dissolved Solids (mg/l)	49,20	97,77	155,35	25,31	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	29,63	59,00	109,07	20	N/A
Total Hardness (mg/l)	27,25	77,00	137,19	25,3	N/A
Calcium Hardness as CaCO ₃ (mg/l)	17,88	27,80	59,82	10,0	N/A
Calcium as Ca (mg/l)	7,16	11,13	23,29	4,00	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	9,38	49,20	77,38	15,33	N/A
Magnesium as Mg (mg/l)	2,28	11,94	10,78	3,72	N/A
Sodium as (Na) (mg/l)	8,89	21,15	53,95	6,94	≤ 200 Aesthetic
Potassium as K (mg/l)	1,94	1,12	0,44	0,6	N/A
Chloride as Cl (mg/l)	11,52	22,26	62,22	7,56	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,07	0,11	0,08	0,06	≤ 1.5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,13	0,40	3,32	0,33	≤ 250 Aesthetic ≤ 500 Acute Health-1
Nitrate as N (mg/l)	0,55	0,88	1,05	0,7	≤ 11 Acute health-1
Iron as Fe (µg/l)	25,38	63,20	17,38	58,67	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	0,25	10,40	9,75	4,00	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,03	0,04	0,04	0,03	≤ 1.5 Aesthetic
Aluminium as Al (µg/l)	40,75	2,60	32,38	0,0	≤ 300 Operational
Zinc as Zn (mg/l)	0,06	0,12	0,09	0,02	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,13	0,05	0,07	0,29	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria(count/100ml)	0,00	0,00	0,00	0	≤ 10 Operational
Heterotrophic plate Count (count/ml)	2,19	0,00	0,25	0	≤ 1000 Operational

= Outside limit

Signature : 

Date : 29/11/24



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Ref no: ALL/ Q2/ 24-25/3/ October- December 2024

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

Date Sampled: Averaged: 1st Quarter 2024/2025

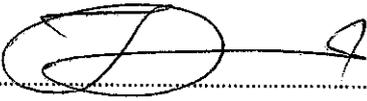
Date analysed: Averaged Quarterly Dec-24



blue drop
CERTIFICATION
drinking water quality
REGULATION

Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	8,31	7,38	6,87	7,09	> 5 - ≤ 9,7 Operational
Turbidity (NTU)	0,27	0,33	0,05	0,07	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	2,13	1,27	1,70	0,89	≤ 15 Aesthetic
Conductivity (mS/m)	7,26	14,89	22,38	4,05	≤ 170 Aesthetic
Temperature °C	26,01	23,96	26,57	24,97	N/A
Total Dissolved Solids (mg/l)	47,15	96,81	145,43	26,34	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	30,82	61,60	99,71	20	N/A
Total Hardness (mg/l)	35,88	69,20	119,46	25,3	N/A
Calcium Hardness as CaCO ₃ (mg/l)	22,69	26,60	54,54	10,0	N/A
Calcium as Ca (mg/l)	9,09	10,65	21,40	4,00	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	13,19	42,60	64,92	15,33	N/A
Magnesium as Mg (mg/l)	3,21	10,34	10,42	3,72	N/A
Sodium as (Na) (mg/l)	8,19	23,11	43,62	6,94	≤ 200 Aesthetic
Potassium as K (mg/l)	1,25	1,22	0,43	0,6	N/A
Chloride as Cl (mg/l)	12,85	22,55	48,33	7,56	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,06	0,20	0,12	0,06	≤ 1,5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,07	0,40	3,21	0,33	≤ 250 Aesthetic ≤ 500 Acute Health-1
Nitrate as N (mg/l)	0,63	1,16	1,23	0,7	≤ 11 Acute health-1
Iron as Fe (µg/l)	20,69	55,60	20,92	58,67	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	0,63	28,00	6,50	4,00	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,02	0,00	0,02	0,03	≤ 1,5 Aesthetic
Aluminium as Al (µg/l)	32,13	34,00	30,92	0,0	≤ 300 Operational
Zinc as Zn (mg/l)	0,07	0,09	0,07	0,02	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,12	0,03	0,06	0,28	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria (count/100ml)	0,00	3,47	0,00	0	≤ 10 Operational
Heterotrophic plate Count (count/ml)	2,25	12,87	0,17	0	≤ 1000 Operational

 = Outside limit

Signature : 

Date : 05/12/24



GREATER TZANEEN MUNICIPALITY
WATER SERVICES LABORATORY

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Ref no:ALL/ Q3/ 24-25/1/ January- March 2025

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

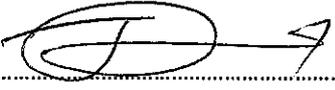
Date Sampled: Averaged: 1st Quarter 2024/2025

Date analysed: Averaged Quartely Jan-25



Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	7,90	7,11	7,07	7,47	> 5- ≤ 9.7 Operational
Turbidity (NTU)	0,45	0,57	0,05	0,22	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	6,63	5,90	8,00	4,33	≤ 15 Aesthetic
Conductivity (mS/m)	8,31	11,78	47,00	4,42	≤ 170 Aesthetic
Temperature °C	25,79	24,25	25,20	26,4	N/A
Total Dissolved Solids (mg/l)	54,00	76,58	305,50	28,7	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	29,13	61,60	167,00	14,67	N/A
Total Hardness (mg/l)	29,25	69,20	185,00	14,0	N/A
Calcium Hardness as CaCO ₃ (mg/l)	19,50	26,60	179,00	6,0	N/A
Calcium as Ca (mg/l)	7,81	10,65	71,67	2,40	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	9,75	42,60	6,00	8	N/A
Magnesium as Mg (mg/l)	2,37	10,34	1,46	1,94	N/A
Sodium as (Na) (mg/l)	10,83	23,11	12,20	9,86	≤200 Aesthetic
Potassium as K (mg/l)	0,74	1,22	0,60	0,6	N/A
Chloride as Cl (mg/l)	14,42	22,55	38,00	11,81	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,10	0,20	0,12	0,19	≤ 1.5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,75	0,40	16,00	0,33	≤250 Aesthetic ≤500 Acute Health-1
Nitrate as N (mg/l)	0,69	1,16	1,10	0,93	≤ 11 Acute health-1
Iron as Fe (µg/l)	33,50	55,60	4,00	43,67	≤300 Aesthetic ≤2000 Chronic Health
Manganese as Mn (µg/l)	46,38	28,00	4,00	3,67	≤100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,07	0,00	0,02	0,02	≤ 1.5 Aesthetic
Aluminium as Al (µg/l)	66,50	34,00	1,00	7,0	≤300 Operational
Zinc as Zn (mg/l)	0,03	0,09	0,01	0,04	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,06	0,01	0,26	0,4	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria(count/100ml)	0,13	0,83	0,00	0	≤10 Operational
Heterotrophic plate Count (count/ml)	2,38	4,08	0,00	0	≤1000 Operational

 = Outside limit

Signature : 

Date : 29/01/25



GREATER TZANEEN MUNICIPALITY
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Ref no: ALL/ Q3/ 24-25/2/ January- March 2025

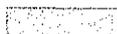
Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

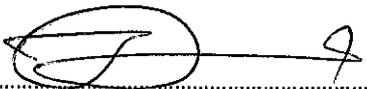
Date Sampled: Averaged: 1st Quarter 2024/2025

Date analysed: Averaged Quarterly Feb-25



Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	7,61	6,66	7,06	7,09	> 5- ≤ 9.7 Operational
Turbidity (NTU)	0,31	0,17	0,05	0,13	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	5,32	7,00	4,00	2,17	≤ 15 Aesthetic
Conductivity (mS/m)	7,42	13,70	36,02	4,38	≤ 170 Aesthetic
Temperature °C	25,64	25,99	26,95	27,65	N/A
Total Dissolved Solids (mg/l)	48,23	89,02	234,12	28,48	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	26,82	42,60	121,50	14,67	N/A
Total Hardness (mg/l)	25,63	57,60	137,19	14,0	N/A
Calcium Hardness as CaCO ₃ (mg/l)	16,75	30,60	113,25	6,0	N/A
Calcium as Ca (mg/l)	6,71	12,25	45,35	2,40	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	8,88	27,00	23,94	8	N/A
Magnesium as Mg (mg/l)	2,16	6,56	5,82	1,94	N/A
Sodium as Na (mg/l)	11,22	16,93	10,42	9,86	≤ 200 Aesthetic
Potassium as K (mg/l)	0,80	3,30	13,86	0,6	N/A
Chloride as Cl (mg/l)	14,30	26,37	32,65	11,81	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,15	0,28	0,16	0,19	≤ 1.5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,88	2,20	10,13	0,33	≤ 250 Aesthetic ≤ 500 Acute Health-1
Nitrate as N (mg/l)	0,87	0,64	1,05	0,93	≤ 11 Acute health-1
Iron as Fe (µg/l)	22,75	39,20	10,19	43,67	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	26,19	7,80	4,50	3,67	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,04	0,16	0,05	0,02	≤ 1.5 Aesthetic
Aluminium as Al (µg/l)	39,75	20,80	34,50	7,0	≤ 300 Operational
Zinc as Zn (mg/l)	0,03	0,07	0,04	0,04	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,17	0,02	0,18	0,3	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria (count/100ml)	0,07	2,03	0,00	0	≤ 10 Operational
Heterotrophic plate Count (count/ml)	1,32	16,08	3,07	0	≤ 1000 Operational

 = Outside limit

Signature : 

Date : 22/02/25



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Ref no:ALL/ Q3/ 24-25/3/ January- March 2025

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

Date Sampled: Averaged: 3rd Quarter 2024/2025

Date analysed: Averaged Quartely

Mar-25



blue drop
 CERTIFICATION
 drinking water quality
 REGULATION

Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	8,31	7,38	6,87	7,09	> 5- ≤ 9.7 Operational
Turbidity (NTU)	0,27	0,33	0,05	0,07	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	2,13	1,27	1,70	0,89	≤ 15 Aesthetic
Conductivity (mS/m)	7,26	14,89	22,38	4,05	≤ 170 Aesthetic
Temperature °C	26,01	23,96	26,57	24,97	N/A
Total Dissolved Solids (mg/l)	47,15	96,81	145,43	26,34	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	30,82	61,60	99,71	20	N/A
Total Hardness (mg/l)	35,88	69,20	119,46	25,3	N/A
Calcium Hardness as CaCO ₃ (mg/l)	22,69	26,60	54,54	10,0	N/A
Calcium as Ca (mg/l)	9,09	10,65	21,40	4,00	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	13,19	42,60	64,92	15,33	N/A
Magnesium as Mg (mg/l)	3,21	10,34	10,42	3,72	N/A
Sodium as Na (mg/l)	8,19	23,11	43,62	6,94	≤ 200 Aesthetic
Potassium as K (mg/l)	1,25	1,22	0,43	0,6	N/A
Chloride as Cl (mg/l)	12,85	22,55	48,33	7,56	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,06	0,20	0,12	0,06	≤ 1.5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,07	0,40	3,21	0,33	≤ 250 Aesthetic ≤ 500 Acute Health-1
Nitrate as N (mg/l)	0,63	1,16	1,23	0,7	≤ 11 Acute health-1
Iron as Fe (µg/l)	20,69	55,60	20,92	58,67	≤ 300 Aesthetic ≤ 2000 Chronic Health
Manganese as Mn (µg/l)	0,63	28,00	6,50	4,00	≤ 100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,02	0,00	0,02	0,03	≤ 1.5 Aesthetic
Aluminium as Al (µg/l)	32,13	34,00	30,92	0,0	≤ 300 Operational
Zinc as Zn (mg/l)	0,07	0,09	0,07	0,02	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,12	0,03	0,06	0,28	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria(count/100ml)	0,00	3,47	0,00	0	≤ 10 Operational
Heterotrophic plate Count (count/ml)	2,25	12,87	0,17	0	≤ 1000 Operational

 = Outside limit

Signature :

Date : 25/03/25



GREATER TZANEEN MUNICIPALITY
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Ref no:ALL/ Q4/ 24-25/1/ April- June 2025

Area : Tzaneen, Nkowankowa, Letsitele and Haenertsburg

Date Sampled: Averaged: 4th Quarter 2024/2025

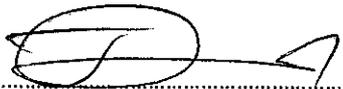
Date analysed: Averaged Quarterly Apr-25



blue drop
 CERTIFICATION
 drinking water quality
 REGULATION

Determinants	Tzaneen	Nkowankowa	Letsitele	Haenertsburg	Standard limits
Ph (-logH)	7,32	6,72	6,70	6,9	> 5- ≤ 9.7 Operational
Turbidity (NTU)	0,29	0,09	0,15	0,04	≤ 5 Aesthetic ≤ 1 Operational
Colour (as Pt)	3,88	3,70	2,75	8	≤ 15 Aesthetic
Conductivity (mS/m)	6,77	17,72	37,26	4,72	≤ 170 Aesthetic
Temperature °C	25,65	24,76	25,25	24,4	N/A
Total Dissolved Solids (mg/l)	43,99	115,19	242,21	30,69	≤ 1200 Aesthetic
Total Alkalinity (mg/l)	22,50	42,60	167,00	14,33	N/A
Total Hardness (mg/l)	22,13	57,60	185,00	15,3	N/A
Calcium Hardness as CaCO ₃ (mg/l)	15,63	30,60	179,00	5,7	N/A
Calcium as Ca (mg/l)	6,26	12,25	71,67	2,27	N/A
Magnesium Hardness as CaCO ₃ (mg/l)	6,50	27,00	6,00	10,33	N/A
Magnesium as Mg (mg/l)	1,58	6,56	1,46	2,51	N/A
Sodium as Na (mg/l)	9,08	16,93	12,20	9,93	≤200 Aesthetic
Potassium as K (mg/l)	0,69	3,30	0,60	0,6	N/A
Chloride as Cl (mg/l)	13,12	26,37	38,00	12,29	≤ 300 Aesthetic
Fluoride as F (mg/l)	0,40	0,28	0,12	0,04	≤ 1.5 Chronic Health
Sulphate as SO ₄ (mg/l)	0,00	2,20	16,00	0	≤250 Aesthetic ≤500 Acute Health-1
Nitrate as N (mg/l)	0,53	0,64	1,10	1,33	≤ 11 Acute health-1
Iron as Fe (µg/l)	48,00	39,20	4,00	86,33	≤300 Aesthetic ≤2000 Chronic Health
Manganese as Mn (µg/l)	7,50	7,80	4,00	13,33	≤100 Aesthetic ≤ 400 Chronic Health
Ammonia as N (mg/l)	0,18	0,16	0,02	0,04	≤ 1.5 Aesthetic
Aluminium as Al (µg/l)	72,63	20,80	1,00	2,3	≤300 Operational
Zinc as Zn (mg/l)	0,08	0,07	0,01	0,07	≤ 5 Aesthetic
Free Res. Chlorine (mg/l)	0,17	0,02	0,09	0,22	≤ 5 Chronic Health
E.Coli (count/100ml)	0,00	0,00	0,00	0	0 Acute Health-1
Total Coliform Bacteria(count/100ml)	0,00	1,40	0,00	0	≤10 Operational
Heterotrophic plate Count (count/ml)	0,75	12,20	6,88	0	≤1000 Operational

= Outside limit

Signature : 

Date : 16/04/25