



Nkangala District Municipality
EMAKHAZENI LOCAL MUNICIPALITY

P.O. Box 437
Walter Sisulu Street
1050

CERTIFICATE OF CHEMICAL ANALYSIS
Attention: VUSI MAHLANGU / SOLLY LINKS
Attention: MARIANNE JOUBERT

Date received : 20 July 2017
Date reported : 27 July 2017
Quantity Analyzed : 10
Our Ref : NDM / 612 - 621 / C / 07 / 17
Lab No:

C 612

Analysis Results mg/l	LPM METHOD	SANS Standards -241 - 1: 2015 Ed 2 Domestic Water	MH2/7/17
		Standard Limits	Water Works Inlet
Total Dissolved Solids	LPM 2	≤ 1 200	102
Suspended Solids	LPM 1		<0.4
Nitrate & Nitrite as N	LPM 32/76		0.1
Nitrate NO ₃ as N	LPM 32/76	≤ 11	0.1
Nitrite NO ₂ as N	LPM 32/76	≤ 0.9	<0.1
Chlorides as Cl	LPM 30/76	≤ 300	7.45
Total Alkalinity as CaCO ₃	LPM 11/81		69
Fluoride as F	LPM 27/76	≤ 1.5	<0.20
Sulphate as SO ₄	LPM 28/76	Acute Health ≤ 500 - Aesthetic ≤ 250	6.88
Total Hardness as CaCO ₃	LPM 85		72
Calcium Hardness as CaCO ₃	LPM 85		27
Magnesium Hardness as CaCO ₃	LPM 85		44
Calcium as Ca	LPM 15		11.0
Magnesium as Mg	LPM 15		10.7
Sodium as Na	LPM 15	≤ 200	9.30
Potassium as K	LPM 15		1.32
Iron as Fe	LPM 15	Chronic Health ≤ 2.0 - Aesthetic ≤ 0.3	0.34
Manganese as Mn	LPM 15	Chronic Health ≤ 0.4 - Aesthetic ≤ 0.1	<0.01
Conductivity at 25° C in mS/m	LPM 51/82	≤ 170	15.8
pH-Value at 25 ° C	LPM 51/82	≥ 5.0 to ≤ 9.7	8.04
pHs by 21° Celsius	LPM 85		8.42
Langelier Saturation Index	LPM 85		-0.38
Turbidity as N.T.U.	LPM 23/82	Operational ≤ 1.0 - Aesthetic ≤ 5.0	2.29
Aluminium as Al	LPM 15	≤ 0.30	0.09

These results must be read in conjunction with the Uncertainty of Measurement list as provided by Regen Waters Laboratory

QUALITY CONTROL CHECKS

Cation Balance	1.90
Anion Balance	1.74
% Difference	4.3
Measured TDS	102
Calculated TDS	90
Limits > 1.0 - <1.2	1.1
Calcul TDS / E.C. (0.55 - 0.70)	0.6

All heavy metal analyses have been performed on filtered samples.
Tests marked with an asterisk * are not SANAS accredited
These results are related only to the items tested

VALUES HIGHLIGHTED IN GREY ARE NOT WITHIN THE SANS 241 - 1 : 2015 LIMITS AS SPECIFIED

P.L.G. UYS (M.D.)
Technical Signatory