

Item	Service	Comments Unit R/cents/Kl/m	2020/21		2021/22		Vat	2021/22	
			Total Excl VAT	Vat	Total VAT Incl.	Total Excl VAT		Vat	Total VAT Incl.
2.9	2.9	SCIENTIFIC SERVICES							
		Analytical Parameter							
		Physical/Chemical Water Analysis							
		A minimum sample charge of R529.00 applied in 2020/21							
		A minimum sample charge of R566.00 applied in 2021/22							
		pH	R/ sample	50.43	7.57	58.00	54	8.09	62.06
		Electrical conductivity **	R/ sample	58.26	8.74	67.00	62	9.35	71.69
		Colour *	R/ sample	40.87	6.13	47.00	44	6.56	50.29
		Turbidity *	R/ sample	40.87	6.13	47.00	44	6.56	50.29
		Total dissolved solids **	R/ sample	83.48	12.52	96.00	89	13.40	102.72
		Total, carbonate & bicarbonate alkalinity *	R/ sample	54.78	8.22	63.00	59	8.79	67.41
		Total hardness + calcium & magnesium*	R/ sample	200.87	30.13	231.00	215	32.24	247.17
		Calcium *	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Magnesium *	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Sodium *	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Potassium *	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Chloride **	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Sulphate **	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Nitrate + nitrite *	R/ sample	125.22	18.78	144.00	134	20.10	154.08
		Fluoride *	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Phosphorus	R/ sample	125.22	18.78	144.00	134	20.10	154.08
		Silica	R/ sample	125.22	18.78	144.00	134	20.10	154.08
		Aluminium	R/ sample	159.13	23.87	183.00	170	25.54	195.81
		Free & Total Residual Chlorine	R/ sample	100.00	15.00	115.00	107	16.05	123.05
		Boron by ICP	R/ sample	125.22	18.78	144.00	134	20.10	154.08

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2.9	SCIENTIFIC SERVICES									
	Water for Potability Purposes - all ** parameters, Iron, Aluminium, Manganese & Microbiological parameters		2,189.57	328.43	2,518.00	2,343	351.43	2,694.26		
	Water for irrigation purposes - all ** parameters includes pH, EC, TDS, TA, Cl, SO4. Extras are Na & B.		447.83	67.17	515.00	479	71.88	551.05		
	Drinking Water to full SABS 241-2001 specification, but excluding somatic coliphages, enteric viruses & protozoan parasites.		4,347.83	652.17	5,000.00	4,652	697.83	5,350.00		
	Water for Bottling to full SABS 1657-1996 spec. excl. organochlorinepesticides, PCB's and organophosphate pesticides.		3,057.39	458.61	3,516.00	3,271	490.71	3,762.12		
	Sewage/Effluent/Sludge Analyses									
	Ammoniacal nitrogen		139.13	20.87	160.00	149	22.33	171.20		
	Biochemical oxygen demand		238.26	35.74	274.00	255	38.24	293.18		
	Chemical oxygen demand		131.30	19.70	151.00	140	21.07	161.57		
	Methylene Blue Active Substances (Detergents)		375.65	56.35	432.00	402	60.29	462.24		
	Moisture		50.43	7.57	58.00	54	8.09	62.06		
	Nitrate nitrogen		125.22	18.78	144.00	134	20.10	154.08		
	Nitrite nitrogen		125.22	18.78	144.00	134	20.10	154.08		
	Permanganate value		73.04	10.96	84.00	78	11.72	89.88		
	Settleable solids		40.87	6.13	47.00	44	6.56	50.29		
	Settleable solids for SVI & DSVI		50.43	7.57	58.00	54	8.09	62.06		
	Suspended solids		46.09	6.91	53.00	49	7.40	56.71		
	Total & Volatile Solids		100.00	15.00	115.00	107	16.05	123.05		
	Total Kjeldahl nitrogen		233.91	35.09	269.00	250	37.54	287.83		
	Total/Dissolved Organic Carbon		148.70	22.30	171.00	159	23.87	182.97		
	Miscellaneous Analyses									
	Boron by ICP		135.65	20.35	156.00	145	21.77	166.92		
	Cyanide - solid & liquid samples		150.43	22.57	173.00	161	24.14	185.11		
	Phenols		193.04	28.96	222.00	207	30.98	237.54		
	Sulphide		146.09	21.91	168.00	156	23.45	179.76		

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2.9	2.9	SCIENTIFIC SERVICES								
		All Metals by ICP/AA - per element								
		Mercury or Arsenic or Selenium	135.65	20.35	156.00	145	21.77	166.92		
			271.30	40.70	312.00	290	43.54	333.84		
		A suite of 8 or more Metals by ICP per element								
		Chromium (hexavalent)	125.22	18.78	144.00	134	20.10	154.08		
		Soil Analysis - Ambic 1 - P, Na, K, Ca & Mg	752.17	112.83	865.00	805	120.72	925.55		
		Calorific Value	584.35	87.65	672.00	625	93.79	719.04		
		Cement content of mortars	434.78	65.22	500.00	465	69.78	535.00		
		Compost/manure analysis - TKN, P, K etc.	835.65	125.35	961.00	894	134.12	1,028.27		
		Fat - Feedstuffs	226.96	34.04	261.00	243	36.43	279.27		
		Flash point	193.04	28.96	222.00	207	30.98	237.54		
		Oil & Grease - petroleum ether extraction	292.17	43.83	336.00	313	46.89	359.52		
		Pesticides - minimum	584.35	87.65	672.00	625	93.79	719.04		
		Trihalomethanes (THM's)	146.09	21.91	168.00	156	23.45	179.76		
		Flocculation Testing - minimum x complexity factor	1,504.35	225.65	1,730.00	1,610	241.45	1,851.10		
		Distilled Water/ litre	9.57	1.43	11.00	10	1.54	11.77		
		Microbiological & bacteriological Analyses								
		Milk & Dairy Samples								
		Total bacterial count	100.00	15.00	115.00	107	16.05	123.05		
		Total coliform count	72.17	10.83	83.00	77	11.58	88.81		
		E. coli - presence/absence	75.65	11.35	87.00	81	12.14	93.09		
		Ethanol stability	46.09	6.91	53.00	49	7.40	56.71		
		Phosphatase activity	68.70	10.30	79.00	74	11.03	84.53		
		Antibiotics & Inhibitory Substances	46.09	6.91	53.00	49	7.40	56.71		
		Coulter Count - Particle Count	75.65	11.35	87.00	81	12.14	93.09		
		Water Samples								
		Total coliform count	116.52	17.48	134.00	125	18.70	143.38		
		Faecal coliform count	116.52	17.48	134.00	125	18.70	143.38		
		E. coli count	159.13	23.87	183.00	170	25.54	195.81		
		Total bacterial count	75.65	11.35	87.00	81	12.14	93.09		
		Enterococci	116.52	17.48	134.00	125	18.70	143.38		
		Clostridia	159.13	23.87	183.00	170	25.54	195.81		
		Pseudomonas	159.13	23.87	183.00	170	25.54	195.81		