





Sample Points	Sample Point Description	Ammonia	Chloride	Fluoride	M-Alkalinity	Nitrate	Phosphate	Sulphate	Chemical Oxygen Demand	Conductivity	pH	E. coli
VE	Vaal River @ Ermelo 26°21'46.17"S 30°6'31.15"E	0.12	<10	0.20	41.00	0.19	0.09	18.00	16.00	16.00	7.2	
		0.12	<10	0.11	65.00	0.10	<0.05	15.00	11.00	22.00	7.5	
		0.12	12.00	0.20	42.00	0.15	0.04	40.00	19.00	23.00	6.9	
		0.12	<10	0.15	46.00	0.11	<0.036	14.00	17.00	14.00	7	
ZD	Zaaihoek Dam 27°09'47.0"S 29°52'42.8"E											
		0.12	<10	0.11	<5	0.20	<0.036	8.10	28.00	82.00	7.7	
		0.12	<10	0.33	135.00	<0.10	<0.036	20.00	20.00	32.00	7.7	
VKV	Klein Vaal River @ Goedehoop 26°49'12.19"S 30°8'12.00"E	0.12	<10	0.06	54.00	0.10	<0.05	2.50	<10	13.00	7.4	
		0.12	<10	0.09	70.00	<0.10	<0.05	2.50	<10	18.00	7.8	
		0.12	<10	0.12	59.00	0.18	0.04	8.80	14.00	11.00	7	
		0.12	<10	0.10	52.00	<0.10	<0.036	<5.0	12.00	13.00	7.2	
VRA	Rietspruit below Amersfoort 26°54'47.20"S 29°52'19.22"E	0.12	12.00	0.14	180.00	<0.10	<0.05	27.00	12.00	43.00	8.2	
		0.12	18.00	0.16	220.00	<0.10	1.80	38.00	11.00	57.00	8.4	
		0.12	15.00	0.24	110.00	0.36	0.05	53.00	17.00	25.00	7.6	
		0.12	<10	0.23	135.00	<0.10	0.11	21.00	18.00	32.00	7.9	
VKK	Brummerspruit below Ermelo 26°30'49.51"S 29°50'16.24"E	9.20	36.00	0.16	105.00	0.46	2.10	92.00	40.00	39.00	7.5	
		9.40	43.00	0.19	150.00	0.25	2.30	110.00	49.00	73.00	7.2	
		19.00	30.00	0.24	170.00	0.12	1.80	92.00	51.00	67.00	7.3	
		11.00	22.00	0.24	155.00	0.11	1.30	115.00	45.00	60.00	7.4	
VKR	Tweefontein @ Riverside 26°37'21.17"S 29°50'16.24"E	0.55	20.00	0.14	165.00	1.40	0.46	44.00	28.00	50.00	7.7	
		1.60	27.00	0.19	165.00	2.60	0.76	67.00	25.00	61.00	7.3	
		2.50	19.00	0.27	140.00	0.59	0.53	54.00	29.00	49.00	7.2	
		0.34	18.00	0.33	165.00	1.20	0.14	68.00	32.00	52.00	7.6	
VK	Brummerspruit before Vaal River 26°46'51.26"S 29°48'23.51"E	0.12	20.00	0.16	160.00	1.10	0.19	43.00	24.00	46.00	7.9	
		0.12	27.00	0.17	195.00	2.20	0.61	55.00	30.00	59.00	8.8	
		1.40	17.00	0.26	120.00	0.95	0.46	52.00	25.00	44.00	7.2	
		0.12	16.00	0.30	180.00	0.79	0.06	48.00	25.00	48.00	7.7	
VAS	Vaal River above Standerton 26°51'18.56"S 29°41'51.61"E	0.12	12.00	0.12	110.00	0.23	<0.05	27.00	16.00	30.00	8.1	
		0.12	17.00	0.14	155.00	<0.10	<0.05	35.00	25.00	46.00	8.3	
		0.54	11.00	0.22	91.00	0.51	0.11	35.00	20.00	31.00	7.2	
		0.12	<10	0.18	95.00	<0.10	<0.036	20.00	16.00	26.00	7.2	
VGK	Geelklipspruit below Amersfoort 26°57'53.51"S 29°40'19.12"E	0.12	15.00	0.16	225.00	<0.10	<0.05	44.00	13.00	54.00	8.2	
		0.12	17.00	0.17	250.00	<0.10	<0.05	50.00	11.00	61.00	8.4	
		0.12	19.00	0.27	215.00	0.10	0.04	56.00	22.00	57.00	8.1	
		0.12	<10	0.34	185.00	<0.10	<0.036	38.00	20.00	44.00	8.1	
VBB	Blesbokspruit below Bethal 26°34'2.11"S 29°26'41.21"E	7.00	30.00	0.26	185.00	0.80	1.50	32.00	38.00	55.00	7.5	
		1.80	39.00	0.52	130.00		1.30	37.00	76.00	53.00	7	
		0.12	24.00	0.45	140.00	0.35	0.84	34.00	31.00	45.00	7.3	
VBS	Blesbokspruit @ Skaapkraal 26°38'17.35"S 29°27'6.24"E	0.19	31.00	0.27	175.00	1.70	0.45	41.00	38.00	52.00	8.6	
		0.12	34.00	0.33	255.00	0.14	0.78	48.00	39.00	75.00	8.4	
		0.12	38.00	0.47	54.00	0.23	0.88	40.00	56.00	58.00	7.7	
		0.41	12.00	0.33	98.00	0.17	0.30	33.00	33.00	32.00	7.7	
VB	Blesbokspruit @ Vaal River Confluence 26°49'57.05"S 29°30'32.95"E	0.37	25.00	0.27	195.00	0.70	0.27	46.00	23.00	54.00	8	
		0.12	33.00	0.39	255.00	<0.10	<0.05	54.00	23.00	70.00	8.2	
		0.12	19.00	0.38	56.00	0.23	0.19	55.00	34.00	53.00	7.4	
		0.33	<10	0.31	115.00	0.17	0.20	30.00	30.00	33.00	7.6	

Sample Points	Sample Point Description	Ammonia	Chloride	Fluoride	M-Alkalinity	Nitrate	Phosphate	Sulphate	Chemical Oxygen Demand	Conductivity	pH	E. coli
ND-LEEU	Leesuspruit @ New Denmark Colliery 26°51'16.79"S 29°19'31.56"E	0.12	18.00	0.18	120.00	0.14	<0.05	34.00	30.00	36.00	8	
		0.12	33.00	0.29	230.00	<0.10	<0.05	51.00	25.00	61.00	8.5	
		0.12	<10	0.38	72.00	0.22	0.10	29.00	50.00	40.00	6.8	
		0.12	<10	0.32	67.00	<0.10	0.04	20.00	43.00	18.00	8	
VS	Vaal River @ Standerton 26°56'51.37"S 29°15'32.09"E	0.12	<10	0.36	66.00	0.26	<0.05	16.00	21.00	18.00	7.4	
		0.12	<10	0.18	76.00	0.21	<0.05	18.00	26.00	25.00	7.1	
		0.12	<10	0.28	63.00	0.55	0.06	22.00	31.00	23.00	6.9	
		0.12	<10	0.23	66.00	0.15	<0.036	20.00	18.00	21.00	6.8	
S-BETHAL	Bethal Sewage Works 26°29'8.05"S 29°27'15.88"E	18.00	39.00	0.19	280.00	0.72	18.00	27.00	43.00	78.00	7.6	
		1.70	42.00	0.98	150.00	4.20	0.74	58.00	30.00	58.00	7.4	3000.00
		2.40	54.00	0.69	160.00	3.40	6.90	59.00	52.00	68.00	6.8	222610.00
		20.00	34.00	0.28	130.00	<0.10	2.80	26.00	86.00	43.00	7.5	
S-ESW	Ermelo Sewage Works 26°30'42.84"S 29°57'51.11"E	14.00	60.00	0.23	44.00	1.90	1.70	86.00	1870.00	58.00	6.9	
		0.12	<10	0.13	36.00	0.11	0.04	55.00	18.00	20.00	6.7	2020.00
		28.00	42.00	0.32	245.00	<0.10	3.90	56.00	210.00	75.00	7.1	1295070.00
		1.90	90.00	0.23	80.00	11.00	1.40	40.00	26.00	64.00	7.5	
S-TUTU	Tutukani Sewage Works 26°47'36.70"S 29°17'30.43"E	12.00	86.00	0.23	210.00	6.40	1.70	48.00	92.00	74.00	7.6	
		16.00	74.00	0.43	130.00	0.93	2.30	51.00	34.00	52.00	7.4	100.00
		17.00	70.00	0.29	135.00	<0.10	2.10	50.00	33.00	51.00	7.2	26.00
		0.91	45.00	0.16	100.00	5.80	0.56	81.00	26.00	56.00	7.9	
S-MAJUBA	Majuba Power Station Sewage Works 27° 5'23.45"S 29°46'11.44"E	18.00	33.00	0.10	74.00	8.20	1.70	135.00	45.00	61.00	7.5	
		2.20	32.00	0.21	89.00	9.30	0.98	66.00	35.00	56.00	7.3	15.00
		1.00	17.00	0.30	94.00	5.20	0.48	83.00	22.00	46.00	7.1	1300.00
		2.70	80.00	0.16	115.00	6.60	0.97	45.00	47.00	64.00	8.1	
S-ND-SOUTH	New Denmark Colliery - South Shaft 26°44'41.51"S 29°18'31.70"E	4.20	100.00	0.16	84.00	6.40	1.20	56.00	64.00	66.00	7.5	
		6.70	115.00	0.27	125.00	7.80	5.00	47.00	58.00	75.00	7.2	99.00
		2.70	86.00	0.28	92.00	7.40	2.50	46.00	53.00	66.00	7.6	67.00
		2.70	86.00	0.28	92.00	7.40	2.50	46.00	53.00	66.00	7.6	67.00

Sewage Works Compliance (where applicable) to General Standard (GN 1191 Oct 1999)												
S-BETHAL	Bethal Sewage Works 26°29'8.05"S 29°27'15.88"E	18.00		0.19		0.72	18.00		43.00	78.00	7.60	
		1.70		0.98		4.20	0.74		30.00	58.00	7.40	3000.00
		2.40		0.69		3.40	6.90		52.00	68.00	6.80	222610.00
		20.00		0.28		<0.10	2.80		86.00	43.00	7.50	
S-ESW	Ermelo Sewage Works 26°30'42.84"S 29°57'51.11"E	14.00		0.23		1.90	1.70		1870.00	58.00	6.90	
		0.12		0.13		0.11	0.04		18.00	20.00	6.70	2020.00
		28.00		0.32		<0.10	3.90		210.00	75.00	7.10	1295070.00
		1.90		0.23		11.00	1.40		26.00	64.00	7.50	
S-TUTU	Tutukani Sewage Works 26°47'36.70"S 29°17'30.43"E	12.00		0.23		6.40	1.70		92.00	74.00	7.60	
		16.00		0.43		0.93	2.30		34.00	52.00	7.40	100.00
		17.00		0.29		<0.10	2.10		33.00	51.00	7.20	26.00
		0.91		0.16		5.80	0.56		26.00	56.00	7.90	
S-MAJUBA	Majuba Power Station Sewage Works 27° 5'23.45"S 29°46'11.44"E	18.00		0.10		8.20	1.70		45.00	61.00	7.50	
		2.20		0.21		9.30	0.98		35.00	56.00	7.30	15.00
		1.00		0.30		5.20	0.48		22.00	46.00	7.10	1300.00
		2.70		0.16		6.60	0.97		47.00	64.00	8.10	
S-ND-SOUTH	New Denmark Colliery - South Shaft 26°44'41.51"S 29°18'31.70"E	4.20		0.16		6.40	1.20		64.00	66.00	7.50	
		6.70		0.27		7.80	5.00		58.00	75.00	7.20	99.00
		2.70		0.28		7.40	2.50		53.00	66.00	7.60	67.00
		2.70		0.28		7.40	2.50		53.00	66.00	7.60	67.00

Key			
VAS	Vaal River above Standerton	0.12	- 1 Apr 2010 - 30 Jun 2010
		0.12	- 1 Jul 2010 - 30 Sep 2010
		0.54	- 1 Oct 2010 - 31 Dec 2010
		0.12	- 1 Jan 2011 - 31 Mar 2011

Water Quality Guidelines	
	- Ideal
	- Acceptable
	- Tolerable
	- Unacceptable