

**BABELEGI
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '10	AUG '10	SEPT '10	OCT '10	NOV '10	DEC '10
FLOW: Total for the Month (Mℓ)		57.25	50.89	51.260	51.59	57.840	56.69
Daily Average (Mℓ / day)	4.7 Mℓ / day	1.847	1.642	1.709	1.664	1.928	1.829

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DEC 2010
Date		04/07/2010	19/07/2010	03/08/2010	19/08/2010	07/09/2010	21/09/2010	08/10/2010	21/10/2010	01/11/2010	17/11/2010	06/12/2010
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 6,5 ≤ 8,5	7.86	7.91	8.32	8.08	8.05	7.78	8.40	8.19	8.14	7.69	8.11
Electrical Conductivity (mS/m)	≤ 80mS/m	210.2	190.4	118.6	254.3	195	234.5	226.30	232.50	212.4	233.9	248.7
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	1.03	1.05	0.46	0.37	0.27	0.83	1.46	2.34	0.86	0.82	0.82
Nitrate (as N) mg/l	≤ 6 mg/l	0.11	0.17	0.03	0.06	0.06	0.24	0.13	1.74	0.14	0.18	0.13
Orthophosphate (as P) mg/l	≤ 0.8 mg/l	1.94	3.66	3.37	4.88	4.37	5.84	5.74	3.21	6.93	8.14	10.4
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	50	102	76	165	81	53	38	200	126	136	138
Suspended solids mg/l	≤ 10 mg/l	11.8	15	15.8	30.4	14.8	4.4	8.40	12.00	126	38.2	14

(Grab Sample)	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DECEMBER 2010	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		300	400	100	100	40	2000	300	100	50000	40000	60	600
Maximum		500000	1000000	2410000	1940000	2500000	7400000	5000000	5000000	5000000	5000000	5000000	1980000
Average	≤ 1000 CFU/100 ml	264103	274827	203003	295973	296448	567555	7441138	1059718	2088333	2423182	825058	852760
% of Compliance		6%	5%	3%	9%	27%	0%	13%	14%	0%	0%	35%	13%
95 Percentile		500000	500000	740000	1248000	1138000	1374000	5000000	5000000	5000000	5000000	3800000	1924000
Nr of Samples		31	22	31	22	30	119000	31	21	30	22	31	15

**BAVIAANSPOORT
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '10	AUG '10	SEPT '10	OCT '10	NOV '10	DEC '10
FLOW: Total for the Month (M ³)		1456.720	1432.380	1333.490	1374.360	1392.960	1646.270
Daily Average (M ³ / day)	58 Ml / day	46.991	46.206	44.450	44.334	46.432	53.105

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DEC 2010
Date		14/07/2010	27/07/2010	12/08/2010	24/12/2010	12/09/2010	28/09/2010	11/10/2010	24/10/2010	10/11/2010	28/11/2010	31/12/2010
Sample Nr		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 6,5 ≤ 8,5	7.1	7.74	7.89	7.8	7.76	7.98	7.95	7.51	7.47	7.94	7.75
Electrical Conductivity (mS/m)	≤ 80 mS/m	63.3	62.9	32.4	62.74	61.54	61.8	70.51	69.60	60	58.6	52.7
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	1.93	2.68	0.50	2.24	8.59	9.03	14.30	10.30	1.87	4.57	5.37
Nitrate (as N) mg/l	≤ 6 mg/l	6.2	7.59	12.2	8.87	3.61	2.95	1.35	1.41	3.99	5.09	0.67
Orthophosphate (as P) mg/l	≤ 0,9 mg/l	0.24	0.24	0.13	0.22	0.45	0.22	0.36	1.51	0.13	0.6	0.47
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	72	32	48	40	30	40	21	66	20	74	38
Suspended solids mg/l	≤ 10 mg/l	19.6	9.8	14.8	9	8.4	15.4	8.40	34.00	10.6	4.8	9

(Grab Sample)	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DECEMBER 2010	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	0	0
Maximum		1120	1960	3800	10400	50000	48000	50000	50000	50000	50000	50000	50000
Average	≤ 1000 CFU/100 ml	155	202	304	546	7187	2319	6709	2394	1825	4570	13263	5993
% of Compliance		97%	91%	93%	95%	83%	95%	81%	95%	93%	91%	68%	88%
95 Percentile		840	1448	1752	360	50000	560	50000	60	1552	47511	50000	50000
Nr of Samples		31	22	30	21	30	21	31	21	29	22	31	17

**DASPOORT
WASTE WATER TREATMENT WORKS**

BI-ANNUAL SURFACE WATER QUALITY REPORT (3.1.27)

1 Up- and downstream monitoring

1.1 LABORATORY RESULTS

UPSTREAM							
	PERMIT LIMITS	JULY 2010	AUG 2010	SEPT 2010	OCT 2010	NOV 2010	DEC 2010
Date		01/07/2010	02/08/2010	21/09/2010	01/10/2010	30/11/2010	15/12/2010
Sample Number		1	2	3	4	5	6
pH	≥ 8.5 ≤ 8.5	7.73	8.98	6.99	6.39	7.21	7.56
Electrical Conductivity (mS/m)	≤ 70 mS/m	35.9	37.5	45.5	45.00	39.4	50.7
Free & saline ammonia (as N) mg/l	≤ 0.18 mg/l	0.46	0.44	0.63	0.52	0.47	0.18
Nitrate (as N) mg/l	≤ 6 mg/l	1.84	1.84	1.98	1.63	1.6	2.46
Orthophosphate (as P) mg/l	≤ 0.1 mg/l	0.15	0.08	0.15	0.11	0	0.08
Chemical Oxygen demand (as O) mg/l	≤ 15 mg/l	12	14	5	27	40	28
Faecal Coliforms CFU/100ml	≤ 1000 (CFU) per 100 ml	16000	18000	28000	12000	76000	22000

DOWNSTREAM							
	PERMIT LIMITS	01/07/2010	02/08/2010	21/09/2010	01/10/2010	30/11/2010	15/12/2010
Date		1	2	3	4	5	6
Sample Number		1	2	3	4	5	6
pH	≥ 6.5 ≤ 8.5	8.2	7.22	7.2	6.92	7.96	7.59
Electrical Conductivity (mS/m)	≤ 70 mS/m	38.9	42.8	51.2	46.70	46.1	43.8
Free & saline ammonia (as N) mg/l	≤ 0.18 mg/l	0.72	0.63	0.46	0.36	0.33	0.29
Nitrate (as N) mg/l	≤ 6 mg/l	2.63	3.01	3.13	0.80	2.08	2.28
Orthophosphate (as P) mg/l	≤ 0.1 mg/l	0.19	0.12	2.2	0.18	0.07	0.19
Chemical Oxygen demand (as O) mg/l	≤ 15 mg/l	18	21	5	20	42	27
Faecal Coliforms CFU/100ml	≤ 1000 (CFU) per 100 ml	300	300	3600	9800	44000	33000

**KLIPGAT
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '10	AUG '10	SEPT '10	OCT '10	NOV '10	DEC '10
FLOW: Total for the Month (Mℓ)		985.16	941.44	947.51	950.14	961.55	1480.140
Daily Average (Mℓ / day)	55 Mℓ / day	31.779	30.369	31.584	30.650	32.052	47.746

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2010		AUG 2010		SEPT '2010		OCT 2010		NOV 2010	DEC 2010
Date		13/07/2010	26/07/2010	11/08/2010	26/08/2010	15/09/2010	27/09/2010	12/10/2010	27/10/2010	11/11/2010	07/12/2010
Sample Number		1	2	3	4	5	6	7	8	9	10
pH	≥ 6,5 ≤ 8,5	7.46	7.43	7.6	7.73	7.96	7.57	7.83	7.39	7.78	7.53
Electrical Conductivity (mS/m)	≤ 80mS/m	78.5	75.9	45.5	81	77.4	69.10	90.30	107.1	91.7	83.9
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	5.16	5.43	9.04	5.58	8.05	4.31	6.40	3.76	0.52	4.2
Nitrate (as N) mg/l	≤ 6 mg/l	5.46	1.53	3.1	2.32	3.55	1.73	2.61	1.64	2.12	1.04
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	5.48	2.94	2.01	2.24	4.58	4.71	3.86	2.47	0.36	1.91
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	65	53	51	41	70	57	28	70	20	74
Suspended solids mg/l	≤ 10 mg/l	13	11	9	8.8	16.8	7.00	7.40	10.80	2.20	7.2

(Grab Sample)	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DECEMBER 2010	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	120	0	0	100	0	0	120	0	0	0	120
Maximum		50000	500000	500000	500000	650000	1140000	500000	820000	172000	1860000	50000	70000
Average	≤ 1000 CFU/100 ml	7644	87839	30439	38349	44430	191130	90262	77680	28686	101656	17825	19937
% of Compliance		58%	40%	29%	26%	10%	7%	41%	57%	43%	41%	46%	48%
95 Percentile		36500	500000	64500	126000	97500	632000	500000	479000	84100	252000	50000	5000
Nr of Samples		31	30	31	31	30	30	29	28	30	29	28	27

**RIETGAT
WASTE WATER TREATMENT**

1. INFLOW

	DESIGN CAPACITY	JUL '10	AUG '10	SEPT '10	OCT '10	NOV '10	DEC '10
FLOW: Total for the Month (M€)		432.71	471.53	447.3	467.50	480.88	933.070
Daily Average (M€ / day)	27 Ml / day	13.958	15.211	14.910	15.081	16.029	30.099

2. EFFLUENT DISCHARGE MONITORING

2.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point

	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPT 2010		OCT 2010		NOVEMBER 2010		DEC 2010
Date		13/07/2010	26/07/2010	11/08/2010	26/08/2010	16/09/2010	27/09/2010	12/10/2010	27/10/2010	08/11/2010	23/11/2010	07/12/2010
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 5,5 ≤ 8,5	8.3	7.47	7.1	7.51	7.92	7.9	7.55	7.24	7.38	7.65	7.21
Electrical Conductivity (mS/m)	≤ 80 mS/m	90.4	62.3	33	62.3	47.5	51.6	58.50	62.60	56.3	55.9	60.2
Free & saline ammonia (as N) mg/t	≤ 1 mg/t	1.4	1.38	1.4	18.5	1.08	0.64	6.57	4.06	1.19	1.67	1.29
Nitrate (as N) mg/t	≤ 15 mg/t	7.48	9.54	13.7	2.74	8.08	8.18	4.40	2.96	7.61	9.91	10.1
Orthophosphate (as P) mg/t	≤ 0,9 mg/t	0.58	0.57	0.54	3.59	0.37	0.61	0.11	0.99	0.65	0.58	0.56
Chemical Oxygen demand (as O) mg/t	≤ 85 mg/t	25	54	17	65	38	54	38	55	31	26	38
Suspended solids mg/t	≤ 15 mg/t	9.2	17.8	24.6	11	7.2	12.8	8.40	9.00	5.8	6.6	7.6

(Grab Sample)	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DECEMBER 2010	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	0	0
Maximum		50000	50000	198000	53000	1680	20800	240	50000	50000	50000	50000	1040
Average	≤ 1000 CFU/100 ml	2322	3439	11457	3794	277	1323	46	3813	1893	2201	15486	350
% of Compliance		84%	90%	81%	72%	93%	73%	100%	80%	90%	86%	50%	83%
95 Percentile		5000	27500	72000	15060	1165	3785	170	29930	1742	5000	50000	1040
Nr of Samples		31	31	31	29	30	30	31	30	30	29	28	12

**ROOIWAL
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '10	AUG '10	SEPT '10	OCT '10	NOV '10	DEC '10
FLOW: Total for the Month (M ³)		5704.34	5773.75	5589.97	5698.78	5087.59	8085.08
Daily Average (M ³ / day)	245 Ml / day	184.011	186.250	186.332	183.832	169.586	260.809

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLES)
Compliance Point**

	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DEC 2010
Date		11/07/2010	29/07/2010	09/08/2010	25/08/2010	08/09/2010	29/09/2010	14/10/2010	25/10/2010	08/11/2010	24/11/2010	11
Sample Number		1	2	3	4	5	6	7	8	9	10	
pH	≥ 6,5 ≤ 8,5	8.05	7.96	7.47	7.68	7.92	8.27	7.88	7.78	8.27	8.53	NO SAMPLES
Electrical Conductivity (mS/m)	≤ 80mS/m	71.6	73.2	60.5	64.8	57.8	73.6	77.00	76.20	71.4	68.6	
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	0.68	0.77	0.93	4.98	3.12	2.65	10.80	3.20	1.66	0.77	
Nitrate (as N) mg/l	≤ 6 mg/l	3.4	3.89	3.62	2.22	1.61	1.19	0.45	1.63	0.91	1.1	
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	1.78	4.01	5	3.11	2.24	3.16	10.10	4.48	2.54	2.34	
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	132	53	88	297	210	216	128	334	53	173	
Suspended solids mg/l	≤ 10 mg/l	74	56.2	37	413.8	144	132.8	116.8	163.2	57.4	65.8	

(Grab Sample)	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DECEMBER 2010	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		10	10	20	60	0	0	0	0	100	100	600	500
Maximum		300000	420000	410000	290000	850000	1150000	500000	500000	500000	50000	50000	90000
Average	≤ 1000 CFU/100 ml	50848	25043	71510	38918	105928	163185	34847	35859	79404	48846	105987	153825
% of Compliance		52%	55%	28%	25%	43%	48%	65%	48%	39%	64%	4%	8%
95 Percentile		240000	52400	215000	209500	500000	728000	278500	185000	500000	347400	50000	680000
Nr of Samples		29	29	31	28	30	29	31	31	28	28	27	12

**SANDSPRUIT
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '10	AUG '10	SEPT '10	OCT '10	NOV '10	DEC '10
FLOW: Total for the Month (Mℓ)		302.97	267.48	294.91	274.83	277.5	337.31
Daily Average (Mℓ / day)	20 Mℓ / day	9.773	9.274	9.830	8.859	9.250	10.881

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2010	AUGUST 2010	SEPTEMBER 2010	OCTOBER 2010	NOVEMBER 2010	DEC 2010
Date		13/07/2010	11/08/2010	26/08/2010	16/09/2010	27/09/2010	12/10/2010
Sample Number		1	2	3	4	5	6
pH	≥ 5,5 ≤ 8,0	7.87	7.6	7.82	7.71	7.57	7.55
Electrical Conductivity (mS/m)	< 80 mS/m	85.9	35	53.8	52.2	63.2	80.7
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	4.5	4.59	2.77	9.81	14.8	31.8
Nitrate (as N) mg/l	≤ 15 mg/l	5.88	5.95	3.93	3.35	0.7	0.38
Orthophosphate (as P) mg/l	≤ 0,9 mg/l	1.05	0.58	2.77	0.48	1.72	0.24
Chemical Oxygen demand (as O) mg/l	≤ 85 mg/l	29	17	47	48	58	48
Suspended solids mg/l	≤ 15 mg/l	5.6	12.2	6.6	3.6	4.2	10.4

(Grab Sample)	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DECEMBER 2010	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	0	0	0	0	10
Maximum		500000	500000	82000	90000	500000	500000	500000	500000	500000	500000	280000	270000
Average	≤ 1000 CFU/100 ml	59226	56491	21412	27912	72817	8118	242226	223516	125855	129352	32058	39194
% of Compliance		42%	39%	30%	34%	27%	27%	3%	3%	33%	22%	32%	35%
95 Percentile		500000	500000	58550	77200	331700	419000	500000	500000	500000	500000	165000	241500
Nr of Samples		31	31	30	29	30	30	31	31	27	27	31	20

**SUNDERLAND RIDGE
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08
FLOW: Total for the Month (M ³)		1767.63	1706.99	1668.697	1770.71	2077.6	1682.09
Daily Average (M ³ / day)	45 Ml / day	57.02	55.06	55.623	57.120	69.253	54.261

3. EFFLUENT DISCHARGE MONITORING
3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
 Compliance Point

	PERMIT LIMITS	JULY 2008		AUGUST 2008		SEPT 2008	OCT 2008		NOV 2008	DEC 2008
Date		2008/07/15	2008/07/30	2008/08/12	2008/08/25	2008/09/21	2008/10/13	2008/10/30	2008/11/12	2008/12/08
Sample Number		1	2	3	4	5	6	7	8	9
pH	6.5 ≤ 8.5	7.7	7.58	7.39	7.39	7.37	7.44	7.4	7.38	7.85
Electrical Conductivity (mS/m)	≤ 80 mS/m	76.1	76.1	78.1	76.6	79.2	70.7	67.6	63.3	79.8
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	22.9	22.8	21.9	25.4	23.41	21.2	22.9	16.6	38.31
Nitrate (as N) mg/l	≤ 6 mg/l	5.82	6.45	8.59	6.93	4.89	6.61	7.79	6.75	13.64
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	2.25	2.27	4.45	3.32	3.1	3.09	4.08	2.63	2.4
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	914	156	524	200	119	51	94	111	101
Suspended solids mg/l	≤ 15 mg/l	139.4	78	56.8	154	63.2	123.6	37.4	77.6	29

(Grab Sample)	PERMIT LIMITS	JULY 2008		AUGUST 2008		SEPT 2008		OCT 2008		NOV 2008		DEC 2008	
Time of the Day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Sample Number		1	2	3	4	5	6	7	8	9	10	11	12
Faecal Coliforms CFU/100ml	≤ 150 CFU / 100 ml	6905	15758	6088	11199	3386	12286	5803	15664	8819	10090	10812	11398

**TEMBA
WASTE WATER TREATMENT WORKS**

2. INFLOW

	DESIGN CAPACITY	JUL '10	AUG '10	SEPT '10	OCT '10	NOV '10	DEC '10
FLOW: Total for the Month (Ml)		242.36	221.63	211.1	206.81	188.07	282.35
Daily Average (Ml / day)	12.5 Ml / day	7.818	7.149	7.037	6.665	6.269	9.108

3. EFFLUENT DISCHARGE MONITORING

**3.1 LABORATORY RESULTS (COMPOSITE SAMPLE)
Compliance Point**

	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DEC 2010
Date		04/07/2010	19/04/2010	03/08/2010	19/08/2010	01/09/2010	21/09/2010	08/10/2010	21/10/2010	01/11/2010	17/11/2010	07/12/2010
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 6,5 ≤ 8,5	8.07	7.98	8.4	8.08	7.82	7.87	8.19	8.03	8.02	7.58	7.81
Electrical Conductivity (mS/m)	≤ 80mS/m	99.2	90.1	100.4	40.3	84	103.8	105.00	108.70	99.9	108.2	93.8
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	2.85	3.44	1.15	3.57	5.84	0.93	0.64	0.23	1.23	0.41	0.35
Nitrate (as N) mg/l	≤ 6 mg/l	1.27	2.18	9.74	8.82	5.75	6.15	4.96	7.32	3.8	12.1	6.28
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	1.85	3.28	3.53	2.15	0.97	4.98	3.74	9.61	4.79	6.83	3.84
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	48	52	28	39	59	34	58	80	54	80	32
Suspended solids mg/l	≤ 10 mg/l	4.6	8.2	4.2	7.6	7.6	6.8	7.80	6.80	9	8.4	2.6

(Grab Sample)	PERMIT LIMITS	JULY 2010		AUGUST 2010		SEPTEMBER 2010		OCTOBER 2010		NOVEMBER 2010		DECEMBER 2010	
Time of day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Faecal Coliforms													
Minimum		0	0	0	0	0	0	0	20	0	0	20	20
Maximum		50000	48000	20000	47000	50000	500000	5000	50000	50000	50000	500000	50000
Average	≤ 1000 CFU/100 ml	12031	5685	1281	2810	2454	23010	5586	3622	2705	7099	26033	12770
% of Compliance		61%	71%	83%	83%	80%	79%	73%	87%	77%	82%	61%	61%
95 Percentile		50000	32500	6560	16350	6870	5000	5000	25740	1766	50000	50000	50000
Nr of Samples		31	31	29	30	30	29	30	31	22	22	28	18

**ZEEKOEKAT
WASTE WATER TREATMENT WORKS**

BI-ANNUAL SURFACE WATER QUALITY REPORT (3.1.27)

1. INFLOW

	CAPACITY DESIGN	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08
FLOW: Total for the Month (Mℓ)		1341.71	1356.85	1308.19	1362.18	1520.37	1467.43
Daily Average (Mℓ / day)	30 MI / day	43.281	43.769	43.606	43.941	50.679	47.336

2. EFFLUENT DISCHARGE MONITORING

2.1 LABORATORY RESULTS (COMPOSITE SAMPLE)

Compliance Point

	PERMIT LIMITS	JULY 2008		AUGUST 2008		SEPTEMBER 2008		OCTOBER 2008		NOVEMBER 2008		DEC 2008
Date		2008/07/07	2008/07/24	2008/08/06	2008/08/18	2008/09/14	2008/09/29	2008/10/14	2008/10/29	2008/11/13	2008/11/23	2008/11/30
Sample Number		1	2	3	4	5	6	7	8	9	10	11
pH	≥ 6,5 ≤ 8,5	7.14	7.32	7.27	7.83	7.33	7.62	7.17	7.21	7.06	7.25	7.3
Electrical Conductivity (mS/m)	≤ 80mS/m	62.4	60.3	61.8	63.3	58.1	56.7	52.2	50.7	46.9	50.8	51.9
Free & saline ammonia (as N) mg/l	≤ 1 mg/l	2.91	1.94	2.99	0.99	0.76	1.13	1.27	1.35	0.23	0.11	0.2
Nitrate (as N) mg/l	≤ 6 mg/l	8.9	7.54	6.95	6.45	6.8	5.83	6.11	7.13	4.08	5.96	6.81
Orthophosphate (as P) mg/l	≤ 0.9 mg/l	0.26	0.77	0.78	0.75	0.94	0.99	0.17	0.66	0.67	0.74	0.21
Chemical Oxygen demand (as O) mg/l	≤ 50 mg/l	30	39	106	81	22	50	95	48	76	57	55
Suspended solids mg/l	≤ 10 mg/l	6.7	7.6	11.2	10.8	3.4	30.2	18.4	9.2	10.2	6.6	10.8

(Grab Sample)	PERMIT LIMITS	JULY 2008		AUGUST 2008		SEPTEMBER 2008		OCTOBER 2008		NOVEMBER 2008		DECEMBER 2008	
Time of the Day		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Sample Number		1	2	3	4	5	6	7	8	9	10	11	12
Faecal Coliforms CFU/100mt	≤ 150 CFU/100 mt	811	1089	13	21	31	23	33	30	139	99	49	59