



Directorate: Utility Services
Department: Water & Sanitation

Scientific Services

**WATER QUALITY MONITORING OF RIVERS AND WETLANDS:
CHEMICAL ANALYSIS REPORT**

Sampled Date: 09 June 2016

ZEEKOE - ZEEKOEVLEI AND BIG PRINCESSVLEI

Determinand	Units	POC01	PP01	PP02	PV03	PVWEIR	SCV	ZEV1S	ZEV3S	ZEV5
Total Suspended Solids @ 105 °C	mg/l	8	<5	36	18	29	5	38	84	<5
pH @ 25 °C	-	7.8	7.8	7.8	8.3	8.3	9.3	8.3	8.4	7.6
Conductivity @ 25 °C	mS/m	159	149	142	65	65	44	134	138	125
COD	mg/l O	-	-	-	-	57	32	139	158	-
Total Nitrogen*	mg/l N	11.01	10.47	7.710	5.675	2.281	3.317	9.211	6.180	22.07
Soluble Ammonia*	mg/l N	0.714	0.269	0.015	0.015	0.016	0.104	3.886	2.322	23.39
Soluble Nitrite + Nitrate*	mg/l N	3.058	0.102	<0.050	<0.050	<0.050	1.998	<0.050	0.298	<0.050
Total Phosphorus*	mg/l P	0.180	0.161	0.260	0.127	0.136	0.244	1.710	1.560	13.500
Orthophosphate*	mg/l P	0.147	0.155	0.187	<0.010	<0.010	0.174	1.534	1.088	7.529

Sampling Point Key

PV03 - Princessvlei-centre

SCV - Southfield Canal at Victoria Road

PP01 - Pelican Park South Pond near Zeekoevlei

ZEV1S - Home Bay in front of Zeekoevlei Yacht Club

ZEV5 - At cutoff drain outfall into the zeekoe canal

PVWEIR - Princessvlei near outlet weir

POC01 - Top of Philippi Stormwater Outlet Channel

PP02 - Pelican Park North Pond near Zeekoevlei

ZEV3S - In front of Cape Peninsula Aquatic Club

Weather:

COMMENTS:

COD = Chemical Oxygen Demand

Un-ionised Ammonia: Calculated using the measured soluble ammonia, temperature, pH and conductivity values. A value of 0.000 means that the un-ionised ammonia concentration is <0.004 mg/l N. DWAF Target Water Quality Range =<0.007 mg/l N.

Technical Signatory:

Laboratory Head: Analytical Laboratory:

(In absence Deputy signature)

Name: Ismail Halday

Name: Swastika Surujlal-Naicker

Signature:

Signature:

APPENDIX 1: TEST METHODS

Parameter	Test Method	Uncertainty of Measurement (Worst case UoM for a confidence level of 95%)
Turbidity	MM/WL_TM/03	7%
pH @ 25°C	MM/CCH_TM/01	12%
Conductivity @ 25°C	MM/CCH_TM/02	17%
Chemical Oxygen Demand	MM/AL_TM/01	11%
Total Suspended Solids @ 105°C	MM/CCH_TM/21	11%
Chloride	ISO 15682	See Note 5
Nitrite	ISO 10304	See Note 5
Nitrate & Nitrite	ISO 13395	See Note 5
Free Chlorine	ISO 7393	See Note 5
Alkalinity	ISO 9963	See Note 5
Ammonia	ISO 5664	See Note 5
Biological Oxygen Demand	ISO 5815	See Note 5
Colour	ISO 7887	See Note 5
Cyanide	ISO 6703	See Note 5
Fluoride	ISO 10359	See Note 5
ICP-MS for Metals	ISO 17294	See Note 5
ICP-OES for Metals	ISO 11885	See Note 5
Phenols	ISO 14402	See Note 5
Silica	ISO 16264	See Note 5
Sulphate	ISO 22743	See Note 5
Sulphide	ISO 33358	See Note 5
Total Kjeldahl Nitrogen	ISO 5663	See Note 5
Total & Ortho Phosphate	ISO 15681	See Note 5
Total Persulfate Oxidizable Nitrogen	ISO 11905	See Note 5
Total Organic Carbon	ISO 8245	See Note 5

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