



Directorate: Utility Services
Department: Water & Sanitation

Scientific Services

**WATER QUALITY MONITORING OF BIODIVERSITY POINTS:
CHEMICAL ANALYSIS REPORT**

Sampled Date: 18 August 2016

Determinand	Units	BM11	BM12	BM13	BM14	BM15
Total Suspended Solids @ 105 °C	mg/l	6	<5	<5	<5	<5
pH @ 25 °C	-	7.4	7.6	8.7	7.7	7.8
Conductivity @ 25 °C	mS/m	45	45	1241	105	88
COD	mg/l O	31	40	146	30	42
Total Nitrogen*	mg/l N	0.763	0.407	4.585	9.642	8.791
Soluble Ammonia*	mg/l N	0.071	0.054	0.338	6.639	6.155
Soluble Nitrite + Nitrate*	mg/l N	<0.050	<0.050	<0.050	1.591	0.619
Total Phosphorus*	mg/l P	0.085	0.012	0.068	0.877	1.070
Orthophosphate*	mg/l P	0.051	<0.010	0.012	0.831	1.040

Sampling Point Key

BM11 - Psoralea Park artificial perennial wetland (Muizenberg East)

BM12 - Private Nature Reserve (Muizenberg East)

BM13 - Eastern side of Moddervlei wetland at Rondevlei NR (near Gate C)

BM14 - East shore of Zeekoevlei at end of 14th Avenue

BM15 - South east corner of Zeekoevlei (southern toilet block)

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:

Name: Ismail Halday

Signature:

Laboratory Head: Analytical Laboratory:

Name: Swastika Surujlal-Naicker

Signature:

(In absence Deputy 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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