

YANKA LABORATORIES CHEMISTRY TEST

LABORATORY NUMBER		2250	
SAMPLE DESCRIPTION		MMS Potable water	
SAMPLE NUMBER		E11170-002	
MINE NO/SITE NO		12 1267	
CO-ORDINATES		S25°56'200" E029°23.329'	
ELEVATION		1505	
SAMPLED	Test Method	2010/05/18	
Remarks		Tap / Clear	
Acidity	mg CaCO ₃ /L	SM 2310	1.58
Total Alkalinity	mg CaCO ₃ /L	SM 2320	45.1
Bicarbonate Alkalinity	mg CaCO ₃ /L	SM 2320	45.1
Carbonate Alkalinity	mg CaCO ₃ /L	SM 2320	Nil
M Alkalinity	mg CaCO ₃ /L	SM 2320	45.1
P Alkalinity	mg CaCO ₃ /L	SM 2320	Nil
Conductivity (Laboratory)	mS/m	SABS SM 1057	17.5
Conductivity (Field)	mS/m	SABS SM 1057	19.5
pH (Laboratory)		SABS SM 11	7.64
pH (Field)		SABS SM 11	7.64
Total Hardness	mg CaCO ₃ /L	Calculation	61.6
Calcium Hardness	mg CaCO ₃ /L	Calculation	27.7
Magnesium Hardness	mg CaCO ₃ /L	Calculation	33.8
Total Dissolved Solids	mg/L	Calculation	94.8
Suspended Solids	mg/L	SABS SM 1049	4.40
Temperature	C	Thermometer	23.0
Turbidity	NTU	SABS SM 197	0.980
Ammonia	mg N/L	SM 4500-NH ₃ F	<0.01
Calcium	mg Ca/L	SABS ISO 11885	11.1
Total Chlorine	mg Cl ₂ /L	SM 4500-Cl G	Nil
Soluable Chlorine	mg Cl ₂ /L	SM 4500-Cl G	Nil
Chloride	mg Cl/L	SABS ISO 10304	10.7
Magnesium	mg Mg/L	SABS ISO 11885	8.22
Nitrate	mg N/L	SABS ISO 10304	0.255
Potassium	mg K/L	SABS ISO 11885	3.43
Sodium	mg Na/L	SABS ISO 11885	11.5
Silicon	mg Si/L	SABS ISO 11885	3.29
Sulphate	mg SO ₄ /L	SABS ISO 10304	24.7
Aluminium	mg Al/L	SABS ISO 11885	0.074
Arsenic	mg As/L	SABS ISO 11885	<0.005
Cadmium	mg Cd/L	SABS ISO 11885	<0.003

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SAMPLE DESCRIPTION		MMS Potable water	
SAMPLE NUMBER		E11170-002	
MINE NO/SITE NO		12 1267	
CO-ORDINATES		S25°56.200' E029°23.329'	
ELEVATION		1605	
SAMPLED	Test Method	2010/05/18	
Chromium	mg Cr/L SABS ISO 11885	<0.01	
Cobalt	mg Co/L SABS ISO 11885	<0.01	
Copper	mg Cu/L SABS ISO 11885	<0.01	
Fluoride	mg F/L SABS ISO 10304	0.280	
Iron	mg Fe/L SABS ISO 11885	0.020	
Lead	mg Pb/L SABS ISO 11885	<0.01	
Manganese	mg Mn/L SABS ISO 11885	<0.01	
Mercury	mg Hg/L SABS ISO 11885	<0.001	
Nickel	mg Ni/L SABS ISO 11885	<0.01	
Selenium	mg Se/L SABS ISO 11885	<0.005	
Vanadium	mg V/L SABS ISO 11885	<0.01	
Zinc	mg Zn/L SABS ISO 11885	<0.01	

YANKA LABORATORIES MICROBIOLC

LABORATORY NUMBER	2250	
SAMPLE DESCRIPTION	MMS Potable water	
SAMPLE NUMBER	E11170-002	
MINE NO/SITE NO	12 1267	
CO-ORDINATES	S25°56.200' E029°23.329'	
ELEVATION	1605	
SAMPLED	Test Method	2010/05/18
Remarks	Tap / Clear	
Standard Plate Count	count/mL	SABS SM 221
Total Coliforms	cfm/100mL	SABS SM 221
Faecal Coliforms	cfm/100mL	SABS SM 221
		23
		0
		0

TNTC = Too numerous to count

KRANSPOORT

P.O. Box 7555
MIDDELBURG
1050

CHEMICAL ANALYSIS

Date Received: 8 January 2010
Date Reported: 8 January 2010
Quantity Analyzed: 1

Our Ref: KRA / 8 / E / 01/10

Attention: Mr. Frans Ellis

SANS Standards -241 (2005)

Analysis Results mg/l	Water Treatment Final	SANS Standards -241 (2005)	
		Class I (recommended operational limit)	Class II (max. allowable for limited duration)
Total Dissolved Solids	48	< 1 000	> 1 000 - 2 400
Suspended Solids	<0.4		
Nitrate & Nitrite as N	<0.1	< 10	> 10 - 20
Chlorides as Cl	8.0	< 200	> 200 - 600
Total Alkalinity as CaCO ₃	26		
Fluoride as F	0.24	< 1.0	> 1.0 - 1.5
Sulphate as SO ₄	5.5	< 400	> 400 - 600
Total Hardness as CaCO ₃	25		
Calcium Hardness as CaCO ₃	12		
Magnesium Hardness as CaCO ₃	13		
Calcium as Ca	4.94	< 150	> 150 - 300
Magnesium as Mg	3.14	< 70	> 70 - 100
Sodium as Na	6.95	< 200	> 200 - 400
Potassium as K	0.84	< 50	> 50 - 100
Iron as Fe	0.02	< 0.20	> 0.20 - 2.0
Manganese as Mn	0.01	< 0.10	> 0.10 - 1.0
Conductivity at 25° C in mS/m	7.8	< 150	> 150 - 370
pH-Value at 25° C	7.50	5.0 - 9.5	> 4.0 - 10.0
pHs by 21° Celsius	8.97		
Langelier Saturation Index	-1.47		
Turbidity as N.T.U.	0.61	< 1	> 1 - 5
Free Residual Chlorine Cl ₂	<0.1		
Free & Saline Ammonia NH ₃ as N	<0.20		
Aluminium as Al	0.02	< 0.30	> 0.30 - 0.50

All heavy metal analyses have been performed on filtered samples.
Tests marked with an asterisk * are not SANAS accredited
These results are related only to the items tested

QUALITY CONTROL CHECKS	
Cation Balance	0.83
Anion Balance	0.67
% Difference -	-2.4
Measured TDS	48
Calculated TDS	48
Limits > 1.0 - <1.2	1.1
Calcul TDS / E.C. (0.65 - 0.70)	0.6


P.L.G. UYS (M.D.)

KRANSPOORT

P.O. Box 7555
MIDDELBURG
1050

CHEMICAL ANALYSIS

Our Ref: KRA / 8 / E / 01/10

Date Received: 6 January 2010
Date Reported: 8 January 2010
Quantity Analyzed: 1

Attention: Mr. Frens Ellis

Analysis Results mg/l	Water Treatment Final	SANS Standards -241 (2005)	
		Class 1 (recommended operational limit)	Class 2 (max allowable for limited duration)
Selenium as Se	<0.01	<0.02	>0.02 - 0.05
Vanadium as V	<0.01	<0.20	>0.2 - 0.5
Total Organic Carbon (TOC)	2.4		
Phenolic Compounds	<0.005	<0.01	>0.01 - 0.07
Cyanide as CN	<0.01	<0.05	>0.05 - 0.07
Cadmium as Cd	<0.003	<0.005	>0.005 - 0.01
Cobalt as Co	<0.01	<0.50	>0.50 - 1.0
Total Chromium as Cr	<0.01	<0.10	>0.10 - 0.50
Copper as Cu	0.01	<1.0	>1.0 - 2.0
Antimony as Sb	<0.005	<0.01	>0.01 - 0.05
Nickel as Ni	0.01	<0.15	>0.15 - 0.35
Lead as Pb	<0.01	<0.02	>0.02 - 0.05
Zinc as Zn	0.03	<5.0	>5.0 - 10.0
Arsenic as As	<0.01	<0.01	>0.01 - 0.05
Mercury as Hg	<0.001	<0.001	>0.001 - 0.005
Colour as Pt-Co*	68	<20	>20 - 50
Odour*	No offensive odour		
Taste*	Acceptable Taste		

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F.L.G. UYS (M.D.)

KRANSPOORT

CHEMICAL ANALYSIS: TRIHALOMETHANES


Date Received : 6 January 2010

Analysis Results - $\mu\text{g/l}$ [ppb]	Water Treatment Plant
Chloroform	< 5
Bromodichloromethane	38
Chlorodibromomethane	12
Bromoform	< 2
Trichloroethylene	< 5

ppb - parts per billion

STANDARDS 241 (2006)

Class 1 (acceptable)	< 200 $\mu\text{g/l}$
Class 2 (max. allowable)	200 - 300 $\mu\text{g/l}$


P.L.G. UYS (M.D.)

REGEN WATERS

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BAKTERIOLOGIESE ANALISE BACTERIOLOGICAL ANALYSIS

MONSTER VAN : **Kranspoort**

SAMPLE FROM :

TIPE MONSTER :

TYPE OF SAMPLE : **As noted**

DATE : **6-Jan-10**

Monsterpunte Sampling Points	Totale Kolivorme Bakterieë per 100ml Total Coliform Bacteria per 100ml	Fekale Kolivorme per 100ml Faecal Coliform per 100ml	Heterotrofiese Plaat- telling per 1,0 ml Heterotrophic Plate Count per 1,0 ml
Drinking Water	Nil	Nil	Nil

S.A.N.S. Spesifikasie 241 vir Huishoudelike water, spesifiseer :
S.A.N.S. Specification 241 for Domestic water, specifies :

	Bepaling / Determinant	Eenhede / Counts 95% van monsters / 95% of samples	Waarskuwings vlak / Alert level
1.	Heterotrofiese Plaat-telling / Heterotrophic Plate Count	Telling per 1 ml / Count per 1 ml	5000
2.	Totale Kolivorme Bakterie / Total Coliform Bacteria	Telling per 100 ml / Count per 100 ml	10
3.	Fekale Kolivorme Bakterie / Faecal Coliform Bacteria	Telling per 100 ml / Count per 100 ml	NUL NIL

SANS
241
Ed. / Uitgawe
2005

reekstandaarde (Departement Waterwese en Boshou) van 26 Maart 2004 No. 399 vir Riolowater, spesifiseer :

Afvalwater of afloop mag nie meer as 1000 Tipiese Fekale Kolivorme per 100 ml bevat nie.

Regional Standards (Department Water Affairs and Forestry) of 26 March 2004 No.399 for Waste water specifies :

Waste water or Effluent shall not contains more than 1000 Typical Faecal Coliform per 100 ml.

OPMERKINGS :

REMARKS :

- This sample fulfils the bacteriological criteria as specified by the SANS 241 for human consumption.
- No pathogenic bacteria were present in this sample.

P.L.G. UYS



REGEN WATERS

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HENDRINA POWER STATION

CHEMICAL ANALYSIS	Our Ref: HPS / 175 - 178/ A /02/10
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Date received: 9 February 2010
Date reported: 17 February 2010
Quantity Analyzed: 4
Lab No :

Attention: Mr. G. Coortze

Analysis Results mg/l	A 175	A 176	SANAS Accredited Test Results	
	Water Plant	Lab	SANAS Accredited Method Approved and Method Valid	SANAS Accredited Method Approved and Method Valid
Total Dissolved Solids	124	120	✓	✓
Nitrate & Nitrite as N	<0.1	<0.1	✓	✓
Chlorides as Cl	18	18	✓	✓
Total Alkalinity as CaCO ₃	64	58	✓	✓
Fluoride as F	<0.20	<0.20	✓	✓
Sulphate as SO ₄	22.2	22.8	✓	✓
Calcium as Ca	11.5	11.3	✓	✓
Magnesium as Mg	7.47	7.51	✓	✓
Sodium as Na	17.5	16.1	✓	✓
Potassium as K	2.56	2.56	✓	✓
Iron as Fe	0.03	<0.01	✓	✓
Manganese as Mn	0.03	0.04	✓	✓
Conductivity at 25° C in mS/m	20.5	20.5	✓	✓
pH-Value at 25 ° C	7.92	7.87	✓	✓
Turbidity as N.T.U	1.3	2.5	✓	✓
Free & Saline Ammonia NH ₃ as N	0.23	<0.20	✓	✓
Aluminium as Al	0.07	0.04	✓	✓

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QUALITY CONTROL CHECKS		
Cation Balance	2.04	1.95
Anion Balance	2.25	2.14
% Difference	-4.8	-4.6
Measured TDS	124	120
Calculated TDS	118	114
Limits > 1.0 - <1,2	1.0	1.1
Calcul TDS / E.C. (0.55 - 0.70)	0.6	0.6

P.L.G. UYS (M.D.)



REGEN WATERS

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HENDRINA POWER STATION

CHEMICAL ANALYSIS	Our Ref: HPS / 175 - 178/ A /02/10
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Date received: 9 February 2010
Date reported: 17 February 2010
Quantity Analyzed: 4
Lab No :

Attention: Mr. G. Coortze

Analysis Results mg/l	A 175	A 176	SANAS Accredited (SANS 10247)	
	Water Plant	Lab	SANS 10247-2004 (SANS 10247-2004)	SANS 10247-2009 (SANS 10247-2009)
Selenium as Se	<0.01	<0.01	<0.01	<0.01
Vanadium as V	<0.01	<0.01	<0.01	<0.01
Total Organic Carbon (TOC)	4.11	3.77		
Phenolic Compounds	<0.005	<0.005	<0.01	<0.01
Cyanide as CN	<0.01	<0.01	<0.01	<0.01
Cadmium as Cd	<0.003	<0.003	<0.005	<0.005
Cobalt as Co	<0.01	<0.01	<0.01	<0.01
Total Chromium as Cr	<0.01	<0.01	<0.01	<0.01
Copper as Cu	0.01	0.02	0.05	0.05
Antimony as Sb	<0.005	<0.005	<0.01	<0.01
Nickel as Ni	0.01	0.01	0.01	0.01
Lead as Pb	<0.01	<0.01	<0.01	<0.01
Zinc as Zn	0.02	0.05	0.05	0.05
Arsenic as As	<0.01	<0.01	<0.01	<0.01
Mercury as Hg	<0.001	<0.001	<0.001	<0.001
Colour as Pt-Co*	1	4	100	100
Odour*	No offensive odour	No offensive odour		
Taste*	Acceptable Taste	Acceptable Taste		

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These results are related only to the items tested*

P.L.G. UYS (M.D.)



HENDRINA POWER STATION

CHEMICAL ANALYSIS	Our Ref: HPS / 175 - 178/ A /02/10
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Date received: 9 February 2010
Date reported: 17 February 2010
Quantity Analyzed: 4
Lab No.:

Attention: Mr. G. Coortze

A 177

A 178

Analysis Results mg/l	Pump Station	Optimum Colliery	SANAS Accredited Laboratory	
			Water	Wastewater
Total Dissolved Solids	116	122	1.00	1.00
Nitrate & Nitrite as N	<0.1	<0.1	1.00	1.00
Chlorides as Cl	16	17	1.00	1.00
Total Alkalinity as CaCO ₃	60	62	1.00	1.00
Fluoride as F	<0.20	<0.20	1.00	1.00
Sulphate as SO ₄	22.8	22.9	1.00	1.00
Calcium as Ca	12.7	12.3	1.00	1.00
Magnesium as Mg	7.88	7.71	1.00	1.00
Sodium as Na	13.8	17.2	1.00	1.00
Potassium as K	2.59	2.66	1.00	1.00
Iron as Fe	0.02	0.24	1.00	1.00
Manganese as Mn	0.02	0.02	1.00	1.00
Conductivity at 25° C in mS/m	19.7	20.9	1.00	1.00
pH-Value at 25° C	7.82	8.14	1.00	1.00
Turbidity as N.T.U	1.6	4.7	1.00	1.00
Free & Saline Ammonia NH ₃ as N	<0.20	<0.20	1.00	1.00
Aluminium as Al	0.01	<0.01	1.00	1.00

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QUALITY CONTROL CHECKS		
Cation Balance	1.95	2.08
Anion Balance	2.13	2.20
% Difference	-4.3	-2.8
Measured TDS	116	122
Calculated TDS	112	118
Limits > 1.0 - <1.2	1.0	1.0
Calcul TDS / E.C. (0.55 - 0.70)	0.6	0.6



HENDRINA POWER STATION

CHEMICAL ANALYSIS	Our Ref: HPS / 175 - 178/ A /02/10
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Date received: 9 February 2010 Attention: Mr. G. Coertze
 Date reported: 17 February 2010
 Quantity Analyzed: 4
 Lab No :

Analysis Results mg/l	A 177		A 178	
	Pump Station	Optimum Colliery	SANS 241 Standard 1 mg/l	SANS 241 Standard 1 mg/l
Selenium as Se	<0.01	<0.01	0.01	0.01
Vanadium as V	<0.01	<0.01	0.01	0.01
Total Organic Carbon (TOC)	4.37	3.71		
Phenolic Compounds	<0.005	<0.005	0.005	0.005
Cyanide as CN	<0.01	<0.01	0.01	0.01
Cadmium as Cd	<0.003	<0.003	0.003	0.003
Cobalt as Co	<0.01	<0.01	0.01	0.01
Total Chromium as Cr	<0.01	<0.01	0.01	0.01
Copper as Cu	0.01	0.01	0.01	0.01
Antimony as Sb	<0.005	<0.005	0.005	0.005
Nickel as Ni	0.02	0.02	0.02	0.02
Lead as Pb	<0.01	<0.01	0.01	0.01
Zinc as Zn	0.03	0.12	0.03	0.03
Arsenic as As	<0.01	<0.01	0.01	0.01
Mercury as Hg	<0.001	<0.001	0.001	0.001
Colour as Pt-Co*	2	23	5	5
Odour*	No offensive odour	No offensive odour		
Taste*	Acceptable Taste	Acceptable Taste		

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 These results are related only to the items tested*

P.L.G. UYS (M.D.)

Sample ID 1682110	MICRO-2010-02-16/001502	
Customer Sample ID LAB		
Result	Value	Unit
E. Coli Count	<1	CFU/100ml
Feacal Coliforms Count	<1	CFU/100ml
Total Coliforms Count	<1	CFU/100ml
Total Aerobic Bacteria Count	<1	CFU/ml

Sample ID 1682111	MICRO-2010-02-16/001503	
Customer Sample ID MINE		
Result	Value	Unit
E. Coli Count	<1	CFU/100ml
Feacal Coliforms Count	<1	CFU/100ml
Total Coliforms Count	<1	CFU/100ml
Total Aerobic Bacteria Count	<1	CFU/ml

Sample ID 1682112	MICRO-2010-02-16/001504	
Customer Sample ID WATERPLANT		
Result	Value	Unit
E. Coli Count	<1	CFU/100ml
Feacal Coliforms Count	<1	CFU/100ml
Total Coliforms Count	<1	CFU/100ml
Total Aerobic Bacteria Count	1	CFU/ml

Sample ID 1682113	MICRO-2010-02-16/001505	
Customer Sample ID PROPERTY		
Result	Value	Unit
E. Coli Count	<1	CFU/100ml
Feacal Coliforms Count	<1	CFU/100ml
Total Coliforms Count	<1	CFU/100ml
Total Aerobic Bacteria Count	3	CFU/ml

Sample ID 1682114	MICRO-2010-02-16/001506	
Customer Sample ID RAW WATER		
Result	Value	Unit
E. Coli Count	5	CFU/100ml
Feacal Coliforms Count	5	CFU/100ml
Feacal Streptococci Count	<2	CFU/100ml
Total Coliforms Count	5	CFU/100ml

Sample ID	1682114	MICRO-2010-02-16/001506
Customer Sample ID	RAW WATER	
Result	Value	Unit
Total Aerobic Bacteria Count	50	CFU/ml

Sample ID	1682115	MICRO-2010-02-16/001507
Customer Sample ID	SEWAGE FE	
Result	Value	Unit
E. Coli Count	928000	CFU/100ml
Feacal Coliforms Count	1160000	CFU/100ml
Feacal Streptococci Count	72500	CFU/100ml
Total Coliforms Count	>8000000	CFU/100ml
Total Aerobic Bacteria Count	148500	CFU/ml

Sample ID	1682116	MICRO-2010-02-16/001508
Customer Sample ID	CW NORTH	
Result	Value	Unit
E. Coli Count	35	CFU/100ml
Feacal Coliforms Count	35	CFU/100ml
Feacal Streptococci Count	78	CFU/100ml
Total Coliforms Count	40	CFU/100ml
Total Aerobic Bacteria Count	3000	CFU/ml

Sample ID	1682117	MICRO-2010-02-16/001509
Customer Sample ID	CW SOUTH	
Result	Value	Unit
E. Coli Count	19	CFU/100ml
Feacal Coliforms Count	32	CFU/100ml
Feacal Streptococci Count	23	CFU/100ml
Total Coliforms Count	111	CFU/100ml
Total Aerobic Bacteria Count	20500	CFU/ml

The analyses were performed using the following methods:

E. Coli Water	Eskom Method 406 Rev. 7	Accredited
Feacal Coliforms Water	Eskom Method 406 Rev.7	Accredited
Feacal Streptococci Water	Eskom Method 409 Rev. 4	Accredited
Total Aerobic Bacteria Water	Eskom Method 403 Rev. 3	Accredited
Total Coliforms Water	Eskom Method 404 Rev. 5	Accredited

ARNOT POWER STATION

CHEMICAL ANALYSIS : WATER SAMPLE

Our Ref: ARN / 545 / C / 10 / 09

Date received: 23 October 2009

Date reported : 2 November 2009

Att : Sidwell

Quantity Analyzed: 1

Lab No:

C 545

Analysis Results mg/l	Drinking Water	S.A.N.A.S. Accredited Limits	
		Guideline Value (mg/l)	Maximum Permissible Concentration (mg/l)
Total Dissolved Solids	102	500	1000
Nitrate & Nitrite as N	0.15	50	100
Chlorides as Cl	8.0	250	1000
Total Alkalinity as CaCO ₃	66		
Fluoride as F	<0.20	1.5	1.5
Sulphate as SO ₄	10.7	200	400
Total Hardness as CaCO ₃	55		
Calcium Hardness as CaCO ₃	25		
Magnesium Hardness as CaCO ₃	30		
Calcium as Ca	9.96	100	100
Magnesium as Mg	7.19	50	50
Sodium as Na	12.9	200	200
Potassium as K	1.06	50	50
Iron as Fe	<0.01	0.3	0.3
Manganese as Mn	<0.01	0.05	0.05
Conductivity at 25° C in mS/m	15.8	1000	1000
pH-Value at 25° C	8.24	6.5 - 8.5	6.5 - 8.5
Turbidity as N.T.U.	0.27	1	1
Aluminium as Al	<0.01	0.05	0.05
Free and Saline Ammonia as N	<0.20		
Cadmium as Cd	<0.003	0.01	0.01
Chromium as Cr	<0.01	0.05	0.05
Copper as Cu	<0.01	0.05	0.05
Nickel as Ni	0.01	0.05	0.05
Lead as Pb	<0.01	0.05	0.05
Selenium as Se	<0.01	0.05	0.05
Vanadium as V	<0.01	0.05	0.05
Zinc as Zn	0.02	0.05	0.05
Cobalt as Co	<0.01	0.05	0.05
Arsenic as As	<0.01	0.05	0.05
Mercury as Hg	<0.001	0.01	0.01
Antimony as Sb	<0.005	0.05	0.05
Cyanide (free) as CN	<0.01	0.05	0.05
Cyanide (recoverable) as CN	<0.01	0.05	0.05
Dissolved Organic Carbon (DOC)	To follow		
Phenolic Compounds	<0.005	0.05	0.05

All heavy metal analyses have been performed on filtered samples.
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 These results are related only to the items tested

QUALITY CONTROL CHECKS	
Cation Balance	1.69
Anion Balance	1.78
% Difference	-3.0
Measured TDS	102
Calculated TDS	91
Limits > 1.0 - <1.2	1.1
Calcul TDS / E.C. (0.55 - 0.70)	0.6

P.L.G. UYS

ARNOT POWER STATION

CHEMICAL ANALYSIS : TRIHALOMETHANES

Date Received : 23 October 2009

Date Completed: 2 November 2009

Quantity Analyzed: 1

Analysis Results - µg/l [ppb]	Drinking water
<i>Bromoform</i>	<5
<i>Chloroform</i>	<5
<i>Bromodichloromethane</i>	<10
<i>Dibromochloromethane</i>	<2
<i>Trichloroethylene (TCE)</i>	<5

ppb - parts per billion

STANDARDS 241 (2005)

Class 1 (acceptable)	< 200
Class 2 (max. allowable)	200 - 300

P.L.G. UYS (M.D.)

BACTERIOLOGICAL ANALYSIS WATER SAMPLES

SAMPLE FROM : **Arnot Power Station**

TYPE OF SAMPLE : **As Noted**

DATE : **4-Nov-09**

Sampling Points	Total Coliform Bacteria per 100ml *	Faecal Coliform per 100ml *	Escherichia Coliform per 100 ml *	Heterotrophic Plate Count per 1,0 ml
Potable Water	Nil	Nil	-	12

* IDEXX – Colilert Method
S.A.N.S. Specification 241 for Domestic water, specifies

	<i>Determinant</i>	<i>Counts of samples</i>	<i>Alert level</i>
1.	Heterotrophic Plate Count	Count per 1 ml	5000
2.	Total Coliform Bacteria	Count per 100 ml	10
3.	Faecal Coliform Bacteria	Count per 100 ml	NIL
4.	Escherichia Coliform	Count per 100 ml	NIL

Regional Standards (Department Water Affairs and Forestry) of 26 March 2004 No.399 for Waste water specifies :
Waste water or Effluent shall not contains more than 1000 Faecal Coliform per 100 ml.

REMARKS :

This water sample fulfils the bacteriological criteria as specified by the SANS 241 for human consumption.

P.L.G. UYS (M.D)

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