

SAMPLE SUBMISSION FORM: WATER CHEMISTRY TESTING

Enquiries: Ms. Imogen Carew Section Head Water Quality	
FOR OFFICIAL USE	
Customer Contact Information:	
Customer /Company Name	Laboratory Reference No:
Primary contact person	Sample Condition upon Arrival at the Laboratory
Samples submitted by	Acceptance criteria:
Postal Address & Town	▪ Cooler box temperature tolerance: 0 °C – 10 °C (Applicable for effluent water and selected tests only)
Tel / Mobile Number	Sample(s) received & inspected by
Email Address	First Name _____
Accounts contact person	Signature: _____
Tel / Mobile Number	Date: _____ Time: _____
Email Address	
Financial Information:	
Charge to	Sample container (appropriate/not appropriate)
Customer / Company (listed above) <input type="checkbox"/>	Cooler box temp (without CF)
Other <input type="checkbox"/> _____	Cooler box temp (with CF)
Purchase Order No: _____	Thermometer number (used)
Quotation No (if any): _____	Thermometer correction factor (CF)
Customer Account type (tick the appropriate box)	
Credit Account <input type="checkbox"/> Note: Payment to be done within 30 days	Sample(s) accepted (tick) <input type="checkbox"/>
Cash Customer <input type="checkbox"/> Note: Payment to be done prior to testing	Sample(s) accepted with exception (tick) <input type="checkbox"/>
Analytical Instructions	Sample(s) rejected (tick) <input type="checkbox"/>
Rush TAT requests must be approved by the laboratory. A surcharge will apply.	If rejected, was the customer informed (tick)
Standard Turn-Around-Time <input type="checkbox"/> Rush Turn-Around-Time <input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Test Report	Reason for rejection:
• Test Report(s) will be emailed to primary contact by default
• Additional Test Report(s) will be emailed as specified below:
Email primary contact (tick) <input type="checkbox"/>
Other email address (tick & specify below) <input type="checkbox"/>
_____
Samples accepted with exception:
I the customer agree that the sample(s) should be tested even though not in compliance with the acceptance criteria.
Customer Signature: _____
Date: _____
Customer Authorisation (compulsory)	Excel report required <input type="checkbox"/>
By signing below, you agree to Analytical Laboratory Services Terms & Conditions and authorise Analytical Laboratory Services to perform the requested tests to the best of their knowledge and in accordance with specified Test Methods.	Sample receipt stamp
Customer Signature: _____	
Date: _____	

Note: Complete page 1-2 and all other applicable pages to your request

CHEMICAL TESTING OF WATER SAMPLES			
Note: The laboratory will select the test parameters on behalf of the client, when a signed quotation is attached to this request form.			
No.	Test Parameters	Reference Method	Tick
1.	Absorbed oxygen	METH W 001 based on SANS 5220:2005	<input type="checkbox"/>
2.	Acidity	METH W 002 based on AWWA 2310 B	<input type="checkbox"/>
3.	Alkalinity	METH W 003 based on AWWA 2320 B	<input type="checkbox"/>
4.	Ammonium	METH W 004/046 based on AWWA 4500-NH ₃ F / modified Berthelot	<input type="checkbox"/>
5.	Bicarbonate & Carbonate	calculated	<input type="checkbox"/>
6.	Biological oxygen demand, 5-day	METH W 005 based on AWWA 5210 B	<input type="checkbox"/>
7.	Biological oxygen demand, carbonaceous	METH W 006 based on AWWA 5210 B	<input type="checkbox"/>
8.	Bromide & Iodide	METH W 007 based on P. Höfer	<input type="checkbox"/>
9.	Chloride	METH W 008 based on AWWA 4500-Cl ⁻ B	<input type="checkbox"/>
10.	Chlorine, free and total	METH W 009 based on AWWA 4500-Cl G	<input type="checkbox"/>
11.	Chlorophyll a	METH W 010 based on ISO 10260:1992 E	<input type="checkbox"/>
12.	Chemical oxygen demand	METH W 011/012/013 based on AWWA 5220 D	<input type="checkbox"/>
13.	Colour	METH W 014 based on AWWA Pt-Co-2120 B	<input type="checkbox"/>
14.	Cyanide	METH W 015 based on AWWA 4500-CN E	<input type="checkbox"/>
15.	Density	METH W 016	<input type="checkbox"/>
16.	Dissolved oxygen	METH W 017 based on AWWA 4550-O G	<input type="checkbox"/>
17.	Electrical conductivity	METH W 018 based on AWWA 2510 B	<input type="checkbox"/>
18.	Fat, oil & grease	METH W 019 based on AWWA 5520 B	<input type="checkbox"/>
19.	Fixed and volatile solids, ignited at 550°C	METH W 020 based on AWWA 2540 E	<input type="checkbox"/>
20.	Fluoride	METH W 021 based on AWWA 4500-F C	<input type="checkbox"/>
21.	Hardness	calculated, AWWA 2340 B	<input type="checkbox"/>
22.	Hexavalent chromium	METH W 022 based on AWWA 3500-Cr B	<input type="checkbox"/>
23.	Hydrolysable phosphates	METH W 023 based on AWWA 4500-P B.2 + E	<input type="checkbox"/>
24.	Kjeldahl nitrogen	calculated	<input type="checkbox"/>
25.	Molybdosilicate	METH W 024 based on AWWA 4500-Si C	<input type="checkbox"/>
26.	Nitrate	METH W 025/026/044 based on Spectroquant / AWWA 4500-NO ₃ E	<input type="checkbox"/>
27.	Nitrite	METH W 0027/028/045 based on AWWA 4500-NO ₂ B	<input type="checkbox"/>
28.	Oxidation reduction potential (Redox)	METH W 029 based on AWWA 2580 B	<input type="checkbox"/>
29.	pH	METH W 030 based on AWWA 4500-H ⁺ B	<input type="checkbox"/>
30.	Phenols	METH W 031 based on ASTM D1783-01, B	<input type="checkbox"/>
31.	Reactive phosphorous	METH W 032/047 based on AWWA 4500-P E	<input type="checkbox"/>
32.	Settable solids	METH W 033 based on AWWA 2540 F	<input type="checkbox"/>
33.	Sulfide	METH W 034 based on AWWA 4500-S ²⁻ D	<input type="checkbox"/>
34.	Sulfite	METH W 035 based on AWWA 4500-SO ₃ ²⁻ B	<input type="checkbox"/>
35.	Sulphate	METH W 036/048 based on AWWA 4500-SO ₄ E / F	<input type="checkbox"/>
36.	Total dissolved solids	METH W 037 based on AWWA 2540 C	<input type="checkbox"/>
37.	Total nitrogen	METH W 038 based on EN ISO 11905-1:1997	<input type="checkbox"/>
38.	Total phosphorous	METH W 039 based on AWWA 4500-P B.5 + E	<input type="checkbox"/>
39.	Total solids	METH W 040 based on AWWA 2540 B	<input type="checkbox"/>
40.	Total suspended solids	METH W 041 based on AWWA 2540 D	<input type="checkbox"/>
41.	Turbidity	METH W 042 based on AWWA 2130 B	<input type="checkbox"/>
42.	UV absorbing organic constituents at 254nm	METH W 043 based on AWWA 5910 B	<input type="checkbox"/>

Note: Complete page 1-2 and all other applicable pages to your request

ELEMENTAL ANALYSIS BY ICP-OES			
No.	Test Parameters	Reference Method	Tick
1.	Aluminium	AWWA ICP-3500-AI C	<input type="checkbox"/>
2.	Antimony	AWWA ICP-3500-Sb C	<input type="checkbox"/>
3.	Arsenic	AWWA ICP-3500-As D	<input type="checkbox"/>
4.	Barium	AWWA ICP-3500-Ba C	<input type="checkbox"/>
5.	Beryllium	AWWA ICP-3500-Be	<input type="checkbox"/>
6.	Bismuth	AWWA ICP-3500-Bi	<input type="checkbox"/>
7.	Boron	AWWA ICP-3500-B D	<input type="checkbox"/>
8.	Cadmium	AWWA ICP-3500-Cd C	<input type="checkbox"/>
9.	Calcium	AWWA ICP-3500-Ca C	<input type="checkbox"/>
10.	Chromium (total)	AWWA ICP-3500-Cr C	<input type="checkbox"/>
11.	Cobalt	AWWA ICP-3500-Co C	<input type="checkbox"/>
12.	Copper	AWWA ICP-3500-Cu C	<input type="checkbox"/>
13.	Gold	AWWA ICP-3500-Au	<input type="checkbox"/>
14.	Iron	AWWA ICP-3500-Fe C	<input type="checkbox"/>
15.	Lead	AWWA ICP-3500-Pb C	<input type="checkbox"/>
16.	Lithium	AWWA ICP-3500-Li C	<input type="checkbox"/>
17.	Magnesium	AWWA ICP-3500-Mg C	<input type="checkbox"/>
18.	Manganese	AWWA ICP-3500-Mn C	<input type="checkbox"/>
19.	Mercury	AWWA ICP-3500-Hg	<input type="checkbox"/>
20.	Molybdenum	AWWA ICP-3500-Mo C	<input type="checkbox"/>
21.	Nickel	AWWA ICP-3500-Ni C	<input type="checkbox"/>
22.	Potassium	AWWA ICP-3500-K C	<input type="checkbox"/>
23.	Rubidium	ICP-OES	<input type="checkbox"/>
24.	Selenium	AWWA ICP-3500-Se I	<input type="checkbox"/>
25.	Silicon	ICP-OES	<input type="checkbox"/>
26.	Silver	AWWA ICP-3500-Ag	<input type="checkbox"/>
27.	Sodium	AWWA ICP-3500-Na C	<input type="checkbox"/>
28.	Strontium	AWWA ICP-3500-Sr C	<input type="checkbox"/>
29.	Thallium	AWWA ICP-3500-Tl C	<input type="checkbox"/>
30.	Thorium	AWWA ICP-3500-Th	<input type="checkbox"/>
31.	Tellurium	AWWA ICP-3500-Te	<input type="checkbox"/>
32.	Tin	AWWA ICP-3500-Sn	<input type="checkbox"/>
33.	Titanium	AWWA ICP-3500-Ti	<input type="checkbox"/>
34.	Uranium	AWWA ICP-3500-U	<input type="checkbox"/>
35.	Vanadium	AWWA ICP-3500-V C	<input type="checkbox"/>
36.	Zinc	AWWA ICP-3500-Zn C	<input type="checkbox"/>

INSTRUMENT VERIFICATION			
No.	Test Parameters	Reference Method	Tick
1.	pH, meter and probe / pocket meter	Manufacturer calibration guide	<input type="checkbox"/>
2.	EC & TDS, meter and probe / pocket meter	Manufacturer calibration guide	<input type="checkbox"/>
3.	Redox, meter and probe / pocket meter	Manufacturer calibration guide	<input type="checkbox"/>
4.	DO, meter and probe / pocket meter	Manufacturer calibration guide	<input type="checkbox"/>

As per ISO 17025, this Sample Submittal Form serves as a Contract between the Customer and Analytical Laboratory Services (Pty) Ltd for services being rendered.
 Note: Information provided on this Submittal Form will be transferred to the Test Report, therefore, ensure that the relevant information is correct.

Note: Complete page 1-2 and all other applicable pages to your request

CHEMICAL TESTING OF SALT SAMPLES			
No.	Test Parameters	Reference Method	Tick
1.	Sample preparation & preparation of aqueous extract	METH GN 002 based on SP-2.3	<input type="checkbox"/>
2.	Moisture	METH GN 002 based on SP-2.4	<input type="checkbox"/>
3.	Insoluble impurities	METH GN 003 based on SP-2.3	<input type="checkbox"/>
4.	Chloride	METH GN 003 based on AWWA 4500-Cl ⁻ B	<input type="checkbox"/>
5.	Sulphate	METH GN 003 based on SP-2.5	<input type="checkbox"/>
6.	Carbonate	BS method 1377 part 3	<input type="checkbox"/>
7.	Iodine as KIO ₃	METH GN 004	<input type="checkbox"/>
8.	Iodine as KI	METH GN 005	<input type="checkbox"/>
9.	Screen analysis	METH GN 006	<input type="checkbox"/>
10.	Sodium	AWWA ICP-3500-Na C	<input type="checkbox"/>
11.	Potassium	AWWA ICP-3500-K C	<input type="checkbox"/>
12.	Magnesium	AWWA ICP-3500-Mg C	<input type="checkbox"/>
13.	Calcium	AWWA ICP-3500-Ca C	<input type="checkbox"/>

TESTING OF REAGENTS AND CHEMICALS			
No.	Test Parameters	Reference Method	Tick
1.	Sodium hypochlorite – assay	METH GN 001 based on Powell	<input type="checkbox"/>
2.	Scale – qualitative tests	METH GN 007	<input type="checkbox"/>

TESTING OF DUST SAMPLES			
No.	Test Parameters	Reference Method	Tick
1.	Dust monitoring – quantification of dust fallout	METH W 041 based on AWWA 2540 D	<input type="checkbox"/>
2.	Silica quantification	Aqua Regia digestion followed by filtration	<input type="checkbox"/>
3.	Total metals	Aqua Regia digestion followed by ICP-MS scan	<input type="checkbox"/>

GROUP TESTS			
No.	Test Parameters	Interpretation of results based on:	Tick
1.	Standard water test, including: pH, conductivity, turbidity, total dissolved solids, alkalinity, total-calcium- and magnesium-hardness, chloride, fluoride, sulphate, nitrate, nitrite, Na, K, Mg, Ca, Mn, Fe, stability index, corrosivity index	Guidelines for the evaluation of drinking water quality for human consumption, DWA Namibia, April 1988 and South African Water Quality Guidelines, Volume 5: Agricultural water use: Livestock watering, Second Edition, 1996	<input type="checkbox"/>
2.	Irrigation water test, including: pH, conductivity, alkalinity, total-hardness, chloride, fluoride, sulphate, nitrate, Na, K, Mg, Ca, Mn, Fe, Cu, Zn, B, Mo, stability index, corrosivity index, sodium absorption ratio, residual sodium carbonate, magnesium ratio	South African Water Quality Guidelines, Volume 4: Agricultural water use: Irrigation, Second Edition, 1996	<input type="checkbox"/>
3.	Concrete mixing test (Fulton), including: pH, conductivity, TDS, alkalinity, chloride, sulphate	South African National Standard, SANS 51008:2006	<input type="checkbox"/>
4.	Corrosion water test, including: pH, conductivity, TDS, alkalinity, chloride, sulphate, Mg, Ca, Mn, Fe		<input type="checkbox"/>
5.	Annual water test (SANS 241), including: Standard water test + colour, cyanide, phenolic compounds, Cu, Zn, As, Se, Cd, Cr, Pb, Hg, Ni, Co	Guidelines for the evaluation of drinking water quality for human consumption, DWA Namibia, April 1988 and SANS 241-1:2015	<input type="checkbox"/>
6.	Bottled water test (SANS 1657), including: Standard water test + As, Se, Cd, Cr, Pb	Guidelines for the evaluation of drinking water quality for human consumption, DWA Namibia, April 1988 and SANS 1657:2014 (ED 2.03)	<input type="checkbox"/>
7.	Waste water test (DWA), including: pH, conductivity, oxidation reduction potential, dissolved oxygen, total dissolved solids (det.), total suspended solids, COD, BOD, total nitrogen, nitrate, nitrite, ammonium, o-phosphate, chloride, sulphate, sodium	General standard limits for Article 21 permits (effluents), as per regulation R553 of 5 April 1962	<input type="checkbox"/>

Note: Complete page 1-2 and all other applicable pages to your request

GROUP TESTS			
No.	Test Parameters	Interpretation of results based on:	Tick
8.	Industrial waste water test: pH, conductivity, dissolved oxygen, colour, turbidity, BOD, total dissolved solids (det.), total suspended solids, FOG, COD, free cyanide, hexavalent chromium, sulphide, nitrate, nitrite, free and saline ammonium, total nitrogen, o-phosphate, alkalinity, chloride, fluoride, sulphate, Na, K, Mg, Ca, Mn, Fe, Cu, Zn, B, Cr, Cd, Pb, As, Se, U, Ni, Al, Ba, Sr, Sb, Sn, Ti, Hg	Water management Act 11 of 2013, Annexure 11 (Regulation 75)	<input type="checkbox"/>
9.	Full waste water test, including: Dissolved oxygen, pH, conductivity, total dissolved solids (det.), total suspended solids, COD, BOD, absorbed oxygen, ammonium, free chlorine, sulphide, phenolic compounds, free cyanide, hexavalent chromium, fluoride, FOG, Na, Cu, Zn, B, Cr, Pb, As	General standard limits for Article 21 permits (effluents), as per regulation R553 of 5 April 1962	<input type="checkbox"/>
10.	Waste water test (MunWB), including: pH, conductivity, total dissolved solids (det.), total suspended solids, COD, sulphate, total phosphate, ammonium, free cyanide, sulphide, phenolic compounds, hexavalent chromium, FOG, bromide, Fe, Mn, Cu, Zn, B, Cr, Cd, Pb, Ni, Hg	General standard limits Municipality of Walvis Bay, 2016	<input type="checkbox"/>
11.	Full drinking water analysis, including: pH, conductivity, turbidity, colour, total dissolved solids, alkalinity, total-, calcium- and magnesium-hardness, chloride, fluoride, sulphate, nitrate, nitrite, ammonium, free chlorine, free cyanide, sulphide, bromide, iodine, Na, K, Mg, Ca, stability index, corrosivity index ICP-MS: Li, Be, B, Mo, Cd, Sn, Sb, Te, Ba, W, Au, Hg, Ti, Pb, Bi, U, Al, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, As, Se, Ag	Guidelines for the evaluation of drinking water quality for human consumption, DWA Namibia, April 1988	<input type="checkbox"/>
ICP group tests:			
12.	SW: Na, K, Mg, Ca, Mn, Fe		<input type="checkbox"/>
13.	TW: Cr, Cd, Pb, As, Se		<input type="checkbox"/>
14.	Gr5: U, V, Co, Ni, Li, Rb		<input type="checkbox"/>
15.	RO: Al, Si, Ba, Sr, B		<input type="checkbox"/>
16.	IW: Cu, Zn, Mo, B		<input type="checkbox"/>
17.	M1: Be, Sb, Sn, Th, Ti		<input type="checkbox"/>

Handling of Outsourced Testing			
No.	Test Parameters	Interpretation of results based on:	Tick
1.	ICP-MS scan, 45 elements: Li, Be, B, Sr, Zr, Mo, Cd, Sn, Sb, Te, Ba, La, W, Ir, Pt, Au, Hg, Ti, Pb, Bi, Th, U, Na, Mg, Al, Si, P, S, Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, K, As, Se, Ru, Rh, Pd, Ag	Outsourced to Labolink, SA	<input type="checkbox"/>
2.	PAH, including: naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b+k)fluoranthene, benzo(a)pyrene, benzo(g,h,i)perylene, indeno(123-cd)pyrene	Outsourced to Environmental Pollution Laboratory, SA	<input type="checkbox"/>
3.	VOC, including: Mono-Aromatic Hydrocarbons: benzene, toluene, ethylbenzene, m+p-xylene, o-xylene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, n-propylbenzene, tert-butylbenzene, sec-butylbenzene, n-butylbenzene, isopropylbenzene, styrene, 4-isopropyltoluene Bromo/Chlorobenzenes: bromobenzene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,3,5-trichlorobenzene Polyaromatic compound: naphthalene Volatile brominated/Chlorinated Hydrocarbons: bromoform, chloroform, carbon tetrachloride, trichloroethene (TCE), dibromomethane, dichloromethane, bromochloromethane, bromodichloromethane, dibromochloromethane, 1,2-dibromoethane, 1,2-dichloroethane, tetrachloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, hexachlorobutadiene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 2-chlorotoluene, 4-chlorotoluene, 1,1-dichloroethene, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,2-dichloropropane, 1,3-dichloropropane, 2,2-dichloropropane, 1,2,3-trichloropropane, 1,1-dichloropropene, cis-1,3-dichloropropene, trans-1,3-dichloropropene	Outsourced to Environmental Pollution Laboratory, SA	<input type="checkbox"/>

Note: Complete page 1-2 and all other applicable pages to your request

Handling of Outsourced Testing		
No.	Test Parameters	Tick
4.	<p>sVOC, including: PAH: naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b+k)fluoranthene, benzo(a)pyrene, benzo(g,h,i)perylene, indeno(123-cd)pyrene</p> <p>Chlorinated compounds: 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2-chloronaphthalene, hexachlorobenzene, hexachloroethane, 1,2,4-trichlorobenzene, 4-chlorophenylphenyl ether, 4-bromophenylphenyl ether</p> <p>Phthalates: di-n-butyl phthalate, buthyl benyl phthalate, bis(2-ethylhexyl) phthalate</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>
5.	<p>Polar compounds, including: acetone, methanol, ethanol, acetaldehyde, methyl acetate, ethyl acetate, propyl acetate, butyl acetate, n-propanol, n-butanol, isopropyl alcohol, n-butoxyethanol</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>
6.	<p>THM, including: bromoform, chloroform, bromodichloromethane, dibromochloromethane, trichloroethene</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>
7.	<p>OC Pesticides, including: alpha-HCH, beta-HCH, gamma-HCH, delta-HCH, alpha-chlordane, gamma-chlordane, aldrin, dieldrin, endrin, heptachlor, heptachlor epoxide isomer B, methoxychlor, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>
8.	<p>OP Pesticides, including: alpha-HCH, beta-HCH, gamma-HCH, delta-HCH, alpha-chlordane, gamma-chlordane, aldrin, dieldrin, endrin, heptachlor, heptachlor epoxide isomer B, methoxychlor, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>
9.	<p>BTEX-GRO, including: MTBE, TAME, benzene, toluene, ethylbenzene, m+p-xylene, o-xylene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, naphthalene, GRO C6-C10</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>
10.	<p>TPH-GRO, including: C6-C10, C10-C28, C28-C40</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>
11.	<p>Vinyl Chloride</p>	<p>Outsourced to Environmental Pollution Laboratory, SA</p> <input type="checkbox"/>

Note: Unless otherwise requested by the client, expression of opinion and interpretation of results will be based on guidelines / standards as per table above.

Note: Prices are specified on FM 7.1- 5