

Potable water from Kandaw Gyi Lake, Myanmar

Application: AL-Membran lake water treatment

Date of test: October 2015

Quantity of treated water: up to 2 m³/day

Kandawgyi Lake is one of two major lakes in Myanmar. The lake is artificial; water from Inya Lake is channelled through a series of pipes to this lake. It was created to provide a clean water supply to the city during the British colonial administration. In October 2015 an AL-membrane system was installed to treat up to 2 m³/day to potable water quality.



[Certificate about effluent quality of AL-membrane water treatment](#)

Raw water (Kandaw Gyi Lake):



LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
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 Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)



WTL-RE-001

Issue Date - 01-12-2012
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 Issue No - 1.0/Page 1 of 2

W1015 098

WATER QUALITY TEST RESULTS FORM

Client Mingalar Myanmar
 Nature of Water Pond Water (Raw)
 Location Kandawgyi
 Date and Time of collection 7.10.2015
 Date and Time of arrival at Laboratory 7.10.2015
 Date and Time of commencing examination 8.10.2015
 Date and Time of completing 10.10.2015

Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

pH	7.4		6.5 - 8.5
Colour (True)	75	TCU	15 TCU
Turbidity	103	NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness	46	mg/l as CaCO ₃	500 mg/l as CaCO ₃
Calcium Hardness		mg/l as CaCO ₃	
Magnesium Hardness		mg/l as CaCO ₃	
Total Alkalinity		mg/l as CaCO ₃	
Phenolphthalein Alkalinity		mg/l as CaCO ₃	
Carbonate (CaCO ₃)		mg/l as CaCO ₃	
Bicarbonate (HCO ₃)		mg/l as CaCO ₃	
Iron	0.98	mg/l	0.3 mg/l
Chloride (as CL)	12	mg/l	250 mg/l
Sodium chloride (as NaCL)		mg/l	
Sulphate (as SO ₄)	Nil	mg/l	200 mg/l
Total Solids	180	mg/l	1500 mg/l
Suspended Solids		mg/l	
Dissolved Solids	64	mg/l	1000 mg/l
Manganese	Nil	mg/l	0.05 mg/l
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by

Signature: *Hein*
 Name: Zaw Hein Oo
B.Sc (Chemistry)
Chemist

Approved by

Signature: *Soe Lin*
 Name: Soe Lin
a.B (Civil) 1980
Technical Officer
ISO TECH Laboratory

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Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

Temperature (°C)		°C	
Fluoride (F)		mg/l	1.5 mg/l
Lead (as Pb)		mg/l	0.01 mg/l
Arsenic (As)		mg/l	0.01 mg/l
Nitrate (N.NO ₃)	1.4	mg/l	50 mg/l
Chlorine (Residual)		mg/l	
Ammonia (NH ₃)		mg/l	
Ammonium (NH ₄)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)		mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)		mg/l	
Cyanide (CN)		mg/l	0.07 mg/l
Zinc (Zn)		mg/l	3 mg/l
Copper (Cu)		mg/l	2 mg/l
Silica (Si)		mg/l	

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Signature: *Heira*
 Name: **Zaw Hein Oo**
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Chemist
ISO TECH Laboratory

Approved by

Signature: *Saw Chit*
 Name: **Saw Chit**
B.E (Civil) 1980
Technical Officer
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Treated water after installation of AL-Membran



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WTL-RE-001
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 Issue No - 1.0/Page 1 of 2

W1015 097

WATER QUALITY TEST RESULTS FORM

Client Mingalar Myanmar
 Nature of Water Pond Water (Treated)
 Location Kandawgyi
 Date and Time of collection 7.10.2015
 Date and Time of arrival at Laboratory 7.10.2015
 Date and Time of commencing examination 8.10.2015
 Date and Time of completing 10.10.2015

Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

pH	6.9		6.5 - 8.5
Colour (True)	Nil	TCU	15 TCU
Turbidity	1	NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness	44	mg/l as CaCO ₃	500 mg/l as CaCO ₃
Calcium Hardness		mg/l as CaCO ₃	
Magnesium Hardness		mg/l as CaCO ₃	
Total Alkalinity		mg/l as CaCO ₃	
Phenolphthalein Alkalinity		mg/l as CaCO ₃	
Carbonate (CaCO ₃)		mg/l as CaCO ₃	
Bicarbonate (HCO ₃)		mg/l as CaCO ₃	
Iron	0.03	mg/l	0.3 mg/l
Chloride (as CL)	8	mg/l	250 mg/l
Sodium chloride (as NaCL)		mg/l	
Sulphate (as SO ₄)	Nil	mg/l	200 mg/l
Total Solids	63	mg/l	1500 mg/l
Suspended Solids		mg/l	
Dissolved Solids	62	mg/l	1000 mg/l
Manganese	Nil	mg/l	0.05 mg/l
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

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Signature: Zaw Hein Oo

Name: B.Sc (Chemistry)

Chemist

ISO-TECH Laboratory

Approved by

Signature: Soe Thi

Name: B.E (Civil) 1980

Technical Officer

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Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

Parameter	Result	Unit	Guideline
Temperature (°C)		°C	
Fluoride (F)	0.3	mg/l	1.5 mg/l
Lead (as Pb)	Nil	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate (N.NO ₃)	Nil	mg/l	50 mg/l
Chlorine (Residual)		mg/l	
Ammonia (NH ₃)		mg/l	
Ammonium (NH ₄)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)		mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)		mg/l	
Cyanide (CN)	Nil	mg/l	0.07 mg/l
Zinc (Zn)	Nil	mg/l	3 mg/l
Copper (Cu)	Nil	mg/l	2 mg/l
Silica (Si)		mg/l	

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