

Drinking Water Quality Testing Country Fact Sheet: Afghanistan

Country Drinking Water Quality Standards

Drinking Water Quality Parameter	National Standard
Microbiological (e.g., <i>E. coli</i>)	0 CFU/100 mL
Turbidity	5 NTU
pH	6.5 – 8.5
TDS (Total Dissolved Solid)	1,000 mg/L-2,000 mg/L
Total Hardness	500 mg/L
Nitrate	50 mg/L
Nitrite	3 mg/L
Barium	0.7 mg/L
Boron	2.4 mg/L
Arsenic	0.05 mg/L
Fluoride	1.5 mg/L
Lead	0.01 mg/L
Cyanide	0.05 mg/L
Nickel	0.07 mg/L
Nitrate as Nitrogen	11 mg/L
Zinc	3 mg/L
Selenium	3 mg/L
Chloride	250 mg/L
Sulfate	250 mg/L

Laboratories

Private Companies

- **Venco Intiaz Construction Company (VICC)**

Street 15, Lane 2, House 55, Wazir Akbar Khan, Kabul, Afghanistan
 Tel: Main Office (0093) 020 210 4489, (0093) 799 218 272 / 700225 757
 Website: www.viccbiz.cm

Drinking Water Quality Testing Country Fact Sheet: Afghanistan

- **Zurmat Material Testing Laboratories**

Kabul Main Office; House # 01, Street # 1, District # 06, Kart-e-Seh, Opposite Habibya High School, Kabul, Afghanistan
Cell: +93 (0) 796 001005
Website: www.zurmat-mtl.com

- **Greentec Engineering and Consulting Company**

Street # 8, Opposite of New Oxford High School, Kart-e-Seh, Kabul Afghanistan
Cell: +93 (0) 779 523 567 / 786 330 026
Email: lab@greentec.af
Website: www.greentec.af

Other Organizations

- **DACAAR Water Quality Lab**

DACAAR Kabul Office
Qalayee Fatullah, Road No. 12, Street No.3, House No. 403,
Paykob-e-Naswar, Kabul, Afghanistan
Contact DACAAR Reception: +93 (0) 202230753 / 202230752,
Contact Person DACAAR WET Centre: +93 (0) 797369025, Email: azeem@dacaar.org

- **Ministry of Rural Rehabilitation and Development (MRRD) Water Quality Laboratory**

Tashkilat Street, Nilabagh, Darulaman Road
Kabul, Afghanistan
Contact Person: Eng. Ali Mohammad, Email: ali.mohammad@mrrd.gov.af ,
Tel: +93 (0) 772378260

- **Minsitry of Public Health (MoPH) Water Quality Laboratory**

Near US Embassy, District 10, Charahi Sehat Aama
Tel: +93 (0) 202301377 / 202301351 / 799311934
Contact Person: Eng. Mohammad Ali Akbari, Head of WASH Department of MoPH
Tel:+93 (0)706713098 - 783410917
Email: Ali_akbari786@yahoo.com
Website: www.moph.gov.af

- **MoPH Water Quality Lab at Mazar-e-Sharif** (no contact information available)

- **MoPH Water Quality Lab at Kandahar** (no contact information available)

- **Afghanistan Water Supply & Sewerage Corporation (AUWSSC)**

Kabul, Afghanistan
Contact: M.Latif Muzafarkhil, Head of Strategic Business Unit (SBU) Kabul
Cell: +93(0) 799 816 213
Email: mohammadlatif7@gmail.com
Email: m.latif@auwssc.gov.af



Drinking Water Quality Testing Country Fact Sheet: Afghanistan

Local Organizations Doing Water Quality Testing

- **DACAAR WET Centre**

Provides microbiological, physical and chemical water quality analysis using Potatest Portable Incubator Kits, Photometers Palintest 8000 Wagtech, Interface Photometer Palintest 7000 Wagtech, Spectrophotometer Spectro Flex 6600, Digital Arsenator Wagtech, Digital pH/Conductivity Meter WTW 340i, Digital Turbidimeter; WTW 340 IR, and Digital Dissolved Oxygen Meter WTW multi 3410.

Paikob-e-Naswar, Wazirabad, Kabul Afghanistan
Telephone: +93 (0) 20 223 07 52 / 223 07 53, +93 (0) 797 36 90 25,
Email: dacaar@dacaar.org, azeem@dacaar.org

- **Swedish Committe for Afghanistan (SCA)**

Using chemical testing equipment (HACH) and Digital Arsenator (Wagtech)

Jalalabad Main Road Paktia Kot, left side, 8 kms from Charrahi Abdul Haqq,
PO Box 5017
Tel: +93 (0) 700703653 / 0202320152, / 752023567
Fax: 00930202320156
Email: andreas.stefansson@sca.org.af, info@sca.org.af
Website: www.swedishcommittee.org

- **ZOA Afghanistan (ZOA)**

Using Photometer 7100 for chemical testing, Delagua test kit, and EC meter

Hs. 266, St. 2 (next to Ahmad Jam Mosque), District 3, Karte Char,
PO Box 1515
Tel: +93 (0) 793570388 / 700239825 / 700213949
Email: pga-co@zoa-afg.org, offioffice-mgtcentral@zoa-afg.org
Website: www.zoa-international.com

- **Japan Emergency NGO (JEN)**

Using Digital Arsenator, Potatest Kit, and EC meter
Sayed Inayatullah "Hashimi" Project Manger, JEN/Afghanistan
Phone: +93 (0) 700050464 / 77233533
Email: hashimi@jen-npo.org

- **Action Contre La Faim (ACF)**

Using kits for microbiological and physical tests

Herati Mosque Street (near to the Etisalat building), Shahr-i-Naw
Tel: +93 (0) 799566128/ 008821623127491
Email: hom@af.missions-acf.org, kabul@af.missions-acf.org
Website: www.actioncontrelafaim.org



Drinking Water Quality Testing Country Fact Sheet: Afghanistan

- **Welthungerhilfe/ German Agro Action (GAA)**

Using kit for physical tests and Delauga test kit

M. Rahim Yaqin, Deputy Project Manager, Water & Sanitation Project, WHH,
Sheberghan

Tel: +93 (0) 700 71 53 25

Email: mohammad.rahim@welthungerhilfe.de,

- **Aga Khan Foundation Afghanistan (AKF)**

Using Delagua test kit, kits for physical tests, Arsenator, and Photometer 7100

Hs. 41, St. 2 Qala-i-Fatullah

PO Box 5753

Tel: +93 (0) 791981910 / 700299174 / 798589868

Fax: 0202301189

Email: muslim.khurasan@akdn.org, info.info@akdn.org

Web: www.akdn.org/akf

- **Solidarites International**

Using Potatest kit

Hs. 41, St. 12 (near Pai Kuba Naswar), Qala-i-Fatullah

Tel: +93 (0) 799303633 / 771939523

Email: afg.cdm@solidarites-afghanistan.org, afg.adm.coo@solidarites-afghanistan.org,

Website: www.solidarites.org

- **Relief International (RI)**

Using microbiological and physical test kits

Hs.23, Old Taimani, Golayee Nal, District 10

Tel: +93 (0) 777721571

Email: Inge.detlefsen@ri.org

Website: www.ri.org

- **Agence d'Aide à la Coopération Technique Et au Développement (ACTED)**

Using physical and microbiological test kits

Chidambaram. CT, Head of Programs ACTED, Kabul

Email: ct.chidambaram@acted.org,

Website: www.acted.org

Sayed Shir Hussain Honaryar, Appraisal Monitoring Evaluation Unit (AMEU) Manager

Tel: +93 (0)799343279

Email: sayed.hussain@acted.org

Dost Mohammad Rokai, Faizabad Base Manager

Tel: +93 (0) 700 70 14 59 / 788 43 01 95/ 793 61 60 61

Email: rokai_2013@Yahoo.com



Drinking Water Quality Testing Country Fact Sheet: Afghanistan

- **Tearfund (TF)**

Using physical and microbiological test kits

Hs. 508, St. 9 Taimani, kabul

PO Box 383

Tel: +93 (0) 789026011 / 787841813 / 799337231

Email: afghan-pd@tearfund.org, afghan-dpd@tearfund.org

Web: www.tearfund.org

Local Organizations Providing Training for Water Quality Testing

- **DACAAR WET Centre**

Paikob-e-Naswar, Wazirabad, Kabul Afghanistan

Telephone: +93 (0) 20 223 07 52 / 223 07 53, +93 (0) 797 36 90 25,

Email: dacaar@dacaar.org, azeem@dacaar.org

Local Suppliers

Hardware Equipment

- No hardware equipment is available in the country, must be imported
- **Yahya Hakimi & Brother Co. Ltd**

1st floor, Ariana Plaza, Karta-e-Ariana, Sallang Watt Street

Kabul, Afghanistan

Email: m_yahya007@hotmail.com

Email: yhbl.ltd@gmail.com

Tel: +93 799313566 / +93 777313566

Supplies all types of hardware (e.g., test kits)

Consumable Items

- No consumable items are available in the country, must be imported

- Yahya Hakimi & Brother Co.ltd

1st floor, Ariana Plaza, Karta-e-Ariana, Sallang Watt Street

Kabul, Afghanistan

Email: m_yahya007@hotmail.com

Email: yhbl.ltd@gmail.com

Tel: +93 799313566 / +93 777313566

Supplies all types of consumables (e.g., methanol, reagents, distilled water, sterile pipettes, sampling bottles/bags, Petri dishes, filter paper, filter pads, media)

Membrane Filtration Culture Media Used in the Country

- Membrane Lauryl Sulphate Broth (MLSB) is the most common culture media used and available in Afghanistan.



Drinking Water Quality Testing Country Fact Sheet: Afghanistan

Tips for Working in the Country

- Importing equipment and consumable items can take up to three months due to getting tax exception clearance documents from different government departments (Ministry of Economy, Ministry of Rural Rehabilitation and Development, Ministry of Public Health, Custom Department). The government charges 20% tax on all imported items.
- Even if the government tax is paid, it will still take more than a month to get clearance for imported items from the Customs Department.
- Need to consider shelf life (expiration date) of the products due to the long time it takes to get into the country.
- Costs associated with importing equipment is much less than buying in-country.
- Tips for importing equipment

GFL: produces water stills
PO Box 11 52, 30927, Burgwedel, Germany
Tel: +49 (0) 51399958-0
Fax: +49 (0) 5139995821
Email: info@GFL.de
Website: www.GFL.de

WTW: produces water quality laboratory equipment.
Tel: +49 (0) 881183-0, +49 (0) 881183-100
Fax: +49 (0) 881183-420
Email: Info@WTW.com
Website: www.TWT.com

Wagtech International Ltd: produces water quality laboratory equipment
Wagtech Cort, Station Road
RG19 4HZ, United Kingdom
Tel: +44 (0) 1635872929
Fax: +44 (0) 1635862898
Email: export@wagtech.co.uk
Website: www.wagtech.co.uk

Palintest: produces water quality laboratory equipment.
Tel: +44 (0) 1914910808 ext.276
Fax: +44 (0) 1914825372
Email: Ben.lind@palintest.com
Website: www.palintest.com



Drinking Water Quality Testing Country Fact Sheet: Afghanistan

CAWST (Centre for Affordable Water and Sanitation Technology)
Calgary, Alberta, Canada
Website: www.cawst.org Email: resources@cawst.org
Wellness through Water.... Empowering People Globally
Last Update: October 2013

This document is open content. You are free to:



- Share – to copy, distribute and transmit this document
- Remix – to adapt this document



Under the following conditions:

- Attribution. You must give credit to CAWST as the original source of the document.
Please include our website: www.cawst.org

CAWST does not assume any responsibility for and makes no warranty with respect to the quality of the laboratory services, equipment or consummable products listed in this document.

Drinking Water Quality Testing Country Fact Sheet: Ethiopia

Country Drinking Water Quality Standards

Drinking Water Quality Parameter	National Standard
Microbiological (e.g., <i>E. coli</i>)	0 CFU/100 mL
Turbidity	5 NTU
Nitrate	50 mg/L
Arsenic	0.01 mg/L
Fluoride	1.5 mg/L
Iron	0.3 mg/L

Laboratories

Licensed

- **Ministry of Water and Energy**

Haile G/Silassie Avenue
P.O.Box 5744 and 5744
Addis Ababa, Ethiopia
Tel: +251-1-6611111
Email: info@mowr.gov.et

- **Regional Health Bureaus**

According to the Federal Ministry of Health, Department of Hygiene and Environmental Health, the following regional health laboratories are able to test the microbiological quality of water:

- Tigray Health Research Center at Mekelle (Tigray Regional State)
- Public Health Laboratory of Dessie town (Amhara Regional State)
- Amhara Health Research Laboratory at Bahir Dar (Amhara Regional State)
- Public Health Regional Laboratory of Awassa (SNNPR)
- Public Health Regional Laboratory of Arba Minch town(SNNPR)
- Public Health Regional Laboratory of Mizan Teferi town (SNNPR)
- Public Health Regional Laboratory of Jinka town (SNNPR)
- Public Health Regional Laboratory of Jimma town (Oromiya Regional State)
- Public Health Regional Laboratory of Adama town (Oromiya Regional State)
- Public Health Regional Laboratory of Nekemte town (Oromiya Regional State)
- Public Health Regional Laboratory of Harar town (Oromiya Regional State)

Drinking Water Quality Testing Country Fact Sheet: Ethiopia

- **Addis Ababa Water and Sewerage Authority**
PO Box 1505
Addis Ababa, Ethiopia
Website: www.aawsa.gov.et
- **Quality and Standard Authority of Ethiopia**
Ethiopian Standards Agency
PO Box 2310
Addis Ababa, Ethiopia
Tel: +251 11 6 46 01 11
Fax: +251 11 6 46 08 80
Website: www.ethiostandards.org
Email: info@ethiostandards.org
- **Water Work Design and Supervision Enterprise Laboratory Service Sub Process**
PO Box 2561
Addis Ababa, Ethiopia
Phone: (+251) 0116614501/116-185516
Fax: (+251) 0116615371/610898
Website: www.wwdse.com.et
Email: w.w.d.s.e@telecom.net.et
- **Awash Melkasa Aluminum Sulfate and Sulfuric Acid Share Company**
Awash Melkasa Aluminium Sulphate
PO Box 15757
Tel: 554571/0221114703/0221113809
Cell: 11207313
Fax: 0221114702
Email: amassaf@ethionet.et
- **Environmental Authority of Ethiopia** (no address or contact information)
- **Ethiopian Agricultural Research Organization** (no address or contact information)
- **Institution of Geological Survey** (no address or contact information)

Non-licensed

- None are known



Drinking Water Quality Testing Country Fact Sheet: Ethiopia

Local Organizations Doing Water Quality Testing

- **Ethiopian Kale Heywet Church Development Programme (EKHCDP), Addis Ababa**

Provides microbiological, physical and chemical water quality analysis using Wagtech and Delagua test kits and equipment.

PO Box 5829

Addis Ababa, Ethiopia

Tel: 0115526201

Fax: 0115512763

Website: www.ekhc.org

Email: saraelon@yahoo.com

Contact: Addise Amado Program Manager for Water and Sanitation

Local Organizations Providing Training for Water Quality Testing

- **Ethiopian Kale Heywet Church Development Programme (EKHCDP), Addis Ababa**

PO Box 5829

Addis Ababa, Ethiopia

Tel: 0115526201

Fax: 0115512763

Website: www.ekhc.org

Email: saraelon@yahoo.com

Contact: Addise Amado Program Manager for Water and Sanitation

Type of training provided: Introduction to Drinking Water Quality Testing workshops

Audience: Government staff, nongovernmental organizations (NGOs), community based organizations (CBOs), individuals working in the water and sanitation sectors

- **Wagtech Ethiopia P.L.C**

PO Box 14585

Addis Ababa, Ethiopia

Tel: 0116633280

Fax: 0116633281

Email: info@wagtechethiopia.com

Type of training provided: Physical, chemical, and microbiological water quality testing

Audience: Anyone who purchases equipment or kits from Wagtech



Drinking Water Quality Testing Country Fact Sheet: Ethiopia

Local Suppliers

Hardware Equipment

- **Wagtech Ethiopia PLC**

P.O.Box 14585
Addis Ababa, Ethiopia
Email: info@wagtechethiopia.com
Tel: 0116633280
Fax: 0116633281

Type of Hardware

Potakit
Potalab
Arsenator for arsenic testing

- **Hach Distributor**

Addis Ababa, Ethiopia

Type of Hardware

Incubator
Filtration apparatus
Glassware

Consumable Items

- **Afro German Chemicals EST.PLC**

Tel: (+251-011)1550200
Cell : (+251-091)1470276
Fax: (+251-011)1551057
Email: yitbarek.tsegaye@yahoo.com

Type of Consumables

Methanol

- **BIO.MED**

Tel: (+251-011)-4-674417/ 698886
Cell: (+251-091)1233044
Email: bio-med@ethionet.et

Type of Consumables

Sampling bottles
Methanol
Ethanol
Distilled water

- **BORUFIS**

Tel: (+251-011)4-6603-27
Cell: (+251-091)-514479/465019
Fax: (+251- 011)4-669995
Email: bemsplc@ethionet.et

Type of Consumables

Sampling bottles
Methanol
Ethanol
Distilled water

- **General Chemicals & Trading**

Tel: (+251-011)5510287/88,
Cell: (+251-091)1201107
Fax: (+251-011)5514979
Email: gct@ethionet.et

Type of Consumables

Methanol
Ethanol
Distilled water



Drinking Water Quality Testing Country Fact Sheet: Ethiopia

- **LOPHA Pharmaceuticals**
Tel: (+251-111) 4655897/4668616
Cell: (+251-911-253600)
Fax: +251-114668615
Website:
www.lophapharmaceuticals.com
Type of Consumables
Methanol
Ethanol
Distilled water
Sample bottle
- **Hach Distributor**
Addis Ababa, Ethiopia
Type of Consumables
m-ColiBlue24 culture media
Dilution water (buffered)
Filter paper
Petri dishes and pads
- **WISE TEAM PLC**
Tel: 251-111-564514
Cell: 251-91-1607340
Email: wiseteam@ethionet.et
Type of Consumables
Sampling bottles
Ethanol
Methanol
- **Wagtech Ethiopia**
Wagtec Ethiopia PLC
PO Box 14585
Addis Ababa, Ethiopia
Email: info@wagtechethiopia.com
Tel: 0116633280
Fax: 0116633281
Type of Consumables
Reagents
Pipettes
MLSB culture media

Membrane Filtration Culture Media Used in the Country

- Membrane Lauryl Sulphate Broth (MLSB)
- m-ColiBlue24

Tips for Working in the Country

- Importing equipment and supplies is expensive, customs and duty are high (may have tax exemption if a not for profit organization).
- Wagtech has a supplier in country, but be prepared for substantially higher costs than buying direct (up to 3 times the cost).
- Be aware of the electrical outlet configuration for imported equipment. If it is a South African plug, it is difficult to get the proper adapter in Ethiopia.



Drinking Water Quality Testing Country Fact Sheet: Ethiopia

CAWST (Centre for Affordable Water and Sanitation Technology)
Calgary, Alberta, Canada
Website: www.cawst.org Email: resources@cawst.org
Wellness through Water.... Empowering People Globally
Last Update: October 2013

This document is open content. You are free to:



- Share – to copy, distribute and transmit this document
- Remix – to adapt this document



Under the following conditions:

- Attribution. You must give credit to CAWST as the original source of the document.
Please include our website: www.cawst.org

CAWST does not assume any responsibility for and makes no warranty with respect to the quality of the laboratory services, equipment or consumable products listed in this document.

Drinking Water Quality Testing Country Fact Sheet: Haiti

Country Drinking Water Quality Standards

Drinking Water Quality Parameter	National Standard
Microbiological (e.g., <i>E. coli</i>)	0 CFU/100 mL
Turbidity	1 NTU for drinking water
Turbidity	5 NTU for prospection ¹
Nitrate	50 mg/L (WHO guideline value)
Arsenic	0.01 mg/L (WHO guideline value)
Fluoride	1.5 mg/L (WHO guideline value)
Other	WHO guideline values

¹ Prospection: When people start exploiting a new water source (e.g., wells), the turbidity is relatively high and decreases with time. This is the highest level of turbidity admissible for new water sources.

Laboratories

Licensed

- Laboratoire Vétérinaire et de Contrôle de Qualité des Aliments de Tamarinier (LVCQAT)**
 Rte Nle #1, km 15, Bon Repos
 Tel: (+509) 22 28 63 46
 Email: famv@ueh.edu.ht
- Centre Technique d'Exploitation de la Région Métropolitaine Port-au-Prince (CTE-RMPP, DINEPA)**
 Blvd Toussaint Louverture, Bloc 3 Mains, Port-au-Prince, Haiti
 Tel: +50936369196 / +50936404126
- Faculte d'Agronomie et de Medecine Veterinaire (FAMV)**
 Route Nationale numéro 1, Damien, Port-au-Prince, Haiti
 Tel: (+509) 22 22 47 81 / (+509) 22 22 45 92

Non-licensed

- None are known

Local Organizations Doing Water Quality Testing

- Action Contre la Faim-Haiti (ACF-Haiti) / Action Against Hunger-Haiti

Drinking Water Quality Testing Country Fact Sheet: Haiti

Local Organizations Providing Training for Water Quality Testing

- None are known

Local Suppliers

Hardware Equipment

- None are known

Consumable Items

- None are known

Membrane Filtration Culture Media Used in the Country

- m-ColiBlue24® (manufactured by Hach)
- Membrane lauryl sulphate broth (MLSB) (various manufacturers)

Tips for Working in Haiti

- The most common way to get water quality testing equipment in Haiti is to import them from the Dominican Republic or United States.
- Most of the the water quality testing laboratories in Haiti provide the following tests:
 - Conductivity
 - Turbidity
 - *E. Coli*
 - Total coliform
 - Salmonella
 - Bacteriological analysis
 - Temperature

CAWST (Centre for Affordable Water and Sanitation Technology)
Calgary, Alberta, Canada
Website: www.cawst.org Email: resources@cawst.org
Wellness through Water.... Empowering People Globally
Last Update: October 2013

This document is open content. You are free to:



- Share – to copy, distribute and transmit this document
- Remix – to adapt this document



Under the following conditions:

- Attribution. You must give credit to CAWST as the original source of the document. Please include our website: www.cawst.org

CAWST does not assume any responsibility for and makes no warranty with respect to the quality of the laboratory services, equipment or consummable products listed in this document.



Drinking Water Quality Testing Country Fact Sheet: Lao PDR

Country Drinking Water Quality Standards

Drinking Water Quality Parameter	National Standard
Microbiological (Thermotolerant coliforms)	0 CFU/100 mL (applies to distributed and non-distributed water systems, emergencies, and storage containers)
Microbiological (Total coliforms)	Distributed water systems: 3-5 CFU/100 mL Non distributed water systems: 5-10 CFU/100 mL Emergencies: 0 CFU/100 mL Storage containers: < 2.2 CFU/100 mL
Turbidity	< 10 NTU
Nitrate	50 mg/L
Arsenic	0.05 mg/L
Fluoride	1.5 mg/L
Antimony	0.005 mg/L
Mercury	0.001 mg/L
Selenium	0.01 mg/L
Total Dissolved Solids	500-600 mg/L

Note: Country standards are under review at the moment.

Laboratories

Licensed

- **Nam Saat Central**
Vientiane Capital (with permission from the Ministry of Health)
- **Nam Papa**
Vientiane Capital
- **Mekong River Commission**
Vientiane Capital
- **Centre for Food and Medical Analysis (Ministry of Health)**
Vientiane Capital

Unlicensed

- None are known

Drinking Water Quality Testing

Country Fact Sheet: Lao PDR

Local Organizations Doing Water Quality Testing

- Nam Saat Provinces – Some provinces have small laboratories, but others have received portable test kits from past projects in the areas. The provincial staff may not have the knowledge to perform water quality testing, but you may be able to find and use portable test kits from the following contacts.

Contact person	Telephone	Province	Type of Testing
Vilakhon	n/a	Bokeo	Unknown
Kongkeo	54765810	Luangnamtha	Unknown
Ms. Daovone	59799800	Oudomxai	Unknown
Somdeth	56784392	Xaiyabouly	Unknown
Phaiboun	55771361	Luang Prabang	Lab, complete analysis
Ms. Soukphaivan	97443132	Huaphan	Portable test kit
Bounlenth	56468569	Xieng Khuang	Unknown
Ms. Souban	55401844	Vientiane Capital	Unknown
Ms. Vannuan	55752003	Bolikhamxai	Unknown
Bounchan	55750104	Khammuan	Unknown
Ms. Viengsavanh	55911586	Savannakhet	Lab, complete analysis
Nixai Phoumilath	55288348	Salavan	Portable test kit
Ms. Khomsavan	97693683	Xekong	Unknown
Khomsavan	29294436	Champasack	Unknown
Phomma	5627220	Attapeu	Portable test kit
Mr. Chanta/ Mr. Phousavanh	55902250	Vientiane Capital / Province	Lab, complete analysis
Khamyeay	55787292	Phongsaly	Unknown
Ms. Khonsavan	22204693	Nam Papa (Vientiane)	Lab, complete analysis

Local Organizations Providing Training for Water Quality Testing

- Most of the drinking water quality testing training provided in Laos are internal from Nam Saat Central to Provinces or from Nam Papa to their staff. When other organizations and individuals require water quality testing, they refer people to Nam Saat Central to perform the analysis.

Drinking Water Quality Testing Country Fact Sheet: Lao PDR

Local Suppliers

Hardware Equipment

- **Europ Continents**
237 Ban Sibounhevang Meuang Chanthaboury
PO Box 5933
Vientiane, Lao PDR
Tel: (+856-21) 218322 or 215051 or 252071
Fax: (+851-21) 215052
Website: www.europcontinents.com
- **Saisavat Pharmacy Import – Export**
- **Sokdee Pharmacy Import – Export**
- **Viengthong Pharmacy Import – Export**
- **Sing Loungrod Company**
Nang Kai Province Branch, Thailand
- **Lao Medical Services**
066 Thadeua Rd, Ban Thaphalanxay,
PO Box 4952
Vientiane, Lao PDR
Tel: +856-21-314944/45
Fax: +856-21-314794
Email: contact@lms.la
Website: www.lms.la

Consumable Items

- Same suppliers as above

Membrane Filtration Culture Media Used in the Country

- Membrane lauryl sulphate broth (MLSB) is imported by Avonchem from the UK (www.avonchem.co.uk). It is also available at the local pharmacies listed above.

Tips for Working in the Country

- It takes between two to three months to deliver water quality testing products from other countries.
- Most of the equipment has been imported from the UK or USA, brought by non-governmental organizations as part of their projects.
- Most products and equipment can be found locally at the pharmacies. If it is not available in Laos, it is better to buy the products in Thailand.
- Importing products from Europe or US might be difficult and expensive due to customs, cost of shipping, and taxes.
- The cheapest option for purchasing equipment is Lao Medical Services. They are the biggest provider of equipment for hospitals.



Drinking Water Quality Testing Country Fact Sheet: Lao PDR

CAWST (Centre for Affordable Water and Sanitation Technology)
Calgary, Alberta, Canada
Website: www.cawst.org Email: resources@caust.org
Wellness through Water.... Empowering People Globally
Last Update: October 2013

This document is open content. You are free to:



- Share – to copy, distribute and transmit this document
- Remix – to adapt this document



Under the following conditions:

- Attribution. You must give credit to CAWST as the original source of the document. Please include our website: www.cawst.org

CAWST does not assume any responsibility for and makes no warranty with respect to the quality of the laboratory services, equipment or consummable products listed in this document.

Drinking Water Quality Testing Country Fact Sheet: Zambia

Country Water Quality Standards

Drinking Water Quality Parameter	National Standard
Microbiological (Thermotolerant [Fecal] Coliforms)	0 CFU/100 mL
Turbidity	10 NTU
Nitrate	10 mg/L
Nitrite	1.0 mg/L
Arsenic	0.05 mg/L
Fluoride	1.5 mg/L
Iron	1.0 mg/L
Manganese	0.1 mg/L

Laboratories

Licensed

- Zambia Bureau of Standards**
 Lechwe House, Freedom Way, South End
 P.O. Box 50259, ZA 15101 Ridgeway
 Lusaka, Zambia
 Cell: +260977750010
 Tel: +260211231385
 Fax: +260211238483
- Environmental Engineering Laboratory**
 University of Zambia
 Great East Road Campus
 P.O. Box 32379
 Lusaka, Zambia
 Tel: +260211290962
 Contact: Joel Kabika
- Kafubu Water and Sewerage Company**
 P.O. Box 71278
 Ndola, Zambia
 Tel: +2602622425
 Fax: +2602622177

Drinking Water Quality Testing Country Fact Sheet: Zambia

- **Alfred Knight**
P.O. Box 20303
Corner Mindola Shaft and Golf Club Rd
Nkana West
Kitwe, Zambia
Tel: +260212226433
Fax: +260212226306
- **Tropical Disease Research Centre**
P.O. Box 71769
Ndola Central Hospital
Ndola, Zambia
Tel: +260212611575
Tel: +260212621412
- **Food and Drug Control Laboratory**
University Teaching Hospital
P.O. Box 30138
Lusaka, Zambia
Tel: +260211252855/+260 (211) 252875
- **Indeni Petroleum Refining**
P.O. Box 71869
Ndola, Zambia
Tel: +260212655325
Fax: +260212655191
- **Ndola Lime Company**
P.O. Box 70057
Ndola, Zambia
Tel: +260212621172
Fax: +260212611260
- **Lusaka Water and Sewerage Company**
P.O.Box 50198
Lusaka, Zambia
Tel: +260211250002
- **Ministry of Mines, Energy and Water Development**
P.O. Box 31969
Lusaka, Zambia
Tel: +260 211 251389
Fax: +260253568



Drinking Water Quality Testing Country Fact Sheet: Zambia

- **Eastern Water and Sewerage Company**
P.O. Box 150464
Chipata, Zambia
Tel: +260216221534
Fax: +260216221403
- **Nkana Water and Sewerage Company**
P.O. Box 20982
Kitwe, Zambia
Tel: +260212222488
Fax: +260212222490
- **Southern Water and Sewerage Company**
P.O. Box 61113
Livingstone, Zambia
Tel: +260213322103
- **Lukanga Water and Sewerage Company**
P.O. Box 81745
Kabwe, Zambia
Tel: +260215222474
Tel: +260215223926
- **Western Water and Sewerage Company**
Mongu, Zambia
Tel: +260217221019
- **North Western Water and Sewerage Company**
Solwezi, Zambia
Tel: +260218821330
- **Chambishi Water and Sewerage Company**
P.O. Box
Chambishi, Zambia
Tel: +260212721977
- **Lukanga Water and Sewerage Company**
Chibombo, Zambia
Tel: +260215274125
- **Mulonga Water and Sewerage Company**
Kabundi Road
Chingola, Zambia
Tel: +260212313681



Drinking Water Quality Testing Country Fact Sheet: Zambia

- **Mopani Copper Mines Analytical Services**

P.O. Box 22000
Kitwe, Zambia
Tel: +260212247011
Fax: +260212244002

- **Konkola Copper Mines Analytical Services**

Chingola, Zambia
Tel: +260212350000
Fax: +260212351357

Unlicensed

- None are known

Local Organizations Doing Water Quality Testing

- **Seeds of Hope International Partnerships**

PO Box 250107
Plot 384 Makoli Road
Ndola, Zambia
Tel: +260212671545
Email: info@sohip.org
Website: <http://sohip.org/solutions/wet-c/water/water-quality-testing/>

Local Organizations Providing Training for Water Quality Testing

- **Seeds of Hope International Partnerships**

PO Box 250107
Plot 384 Makoli Road
Ndola, Zambia
Tel: +260212671545
Email: info@sohip.org
Website: <http://sohip.org/solutions/wet-c/water/water-quality-testing/>

Type of training provided: Introduction to Drinking Water Quality Testing workshops
Audience: Government staff, Water Utility Companies, nongovernmental organizations (NGOs), community based organizations (CBOs), individuals working in the water and sanitation sectors

- **University of Zambia**

Environmental Engineering
Great East Road Campus
P.O. Box 32379
Lusaka, Zambia
Tel: +260-1-290598

Type of training provided: Client Driven Training
Audience: Government staff, Water Utility Companies, NGOs, CBOs, individuals working in the water and sanitation sectors



Drinking Water Quality Testing Country Fact Sheet: Zambia

- **Zambia Bureau of Standards**

Lechwe House, Freedom Way, South End
P.O. Box 50259, ZA 15101 Ridgeway
Lusaka, Zambia
Cell: +260977750010
Tel: +260211231385
Fax: +260211238483

Type of training provided: Client Driven Training
Audience: Government staff, Water Utility Companies, NGOs, CBOs, individuals working in the water and sanitation sectors

Local Organizations Providing other Water Quality Services

- **Seeds of Hope International Partnerships**

PO Box 250107
Plot 384 Makoli Road
Ndola, Zambia
Tel: +260212671545
Email: info@sohip.org
Website: <http://sohip.org/solutions/wet-c/water/water-quality-testing/>

Type of service provided: Project Monitoring and Evaluation, Action Research Projects, Presence and Absence test kit sales
Clients: Government departments, Water Utility Companies, NGOs, CBOs, individuals working in the water and sanitation sectors, borehole drillers, bottled water companies, health care professionals



Drinking Water Quality Testing Country Fact Sheet: Zambia

Local Suppliers

Hardware Equipment

Supplier Name and Equipment Available	Contact Person	Phone Number, Fax, Email	Address
THE TECH GROUP Lab equipment and supplies, agents for Wagtech International, Potalab and Potakit portable water quality test kits (see Wagtech website for product list)	In Lusaka: Rhoda	Tel: +260 1 248021/2 Fax: +260 1 246281 Cell: +260 977 606272 Email: techgroupzambia@gmail.com	Plot 4298, Buyantanshi Road, Heavy Industrial Area, PO Box333021/2 Lusaka, Zambia
FERRONES ENTERPRISES Glassware and various lab equipment	Mr Kunda	Tel: +260 977860136	PO Box 70881 Ndola, Zambia Provident House, 9th Floor, Room 904, Ndola, Zambia
KATKAM Ltd Glassware and various lab equipment		Tel: +260955994452 Fax:+260 2 621242 Email : katkamLtd@yahoo.com	Rooms 303 &304, Buteko House, Buteko Avenue, Ndola, Zambia PO Box 240225, Ndola, Zambia
Lab Galore Ltd Various laboratory equipment and precision instruments	Charles Nyirenda (Director)	Telefax: +260 211 841 003/ fax 0211 430345 Cell: +260 955/975 453 823 Email: labgalore@yahoo.com	Shop No. U5 (upstairs) Westgate Shopping Mall, Freedom Way, Lusaka, Zambia

Drinking Water Quality Testing Country Fact Sheet: Zambia

Local Suppliers

Consumable Items

Supplier Name and Consumable Items Available	Contact Person	Phone Number, Fax, Email	Address
THE TECH GROUP Agents for Wagtech International MLSB, chemical testing reagents, turbidity standards, microbiological consumables (e.g., filter paper, pads)	In Lusaka: Rhoda	Tel: +260 1 248021/2 Fax: +260 1 246281 Cell: +260-977-606272 Email: techgroupzambia@gmail.com	Plot 4298, Buyantanshi Road, Heavy Industrial Area, PO Box333021/2 Lusaka, Zambia
FERRONES ENTERPRISES Chemical reagents, methanol, ethanol, pH buffers, membrane filter paper, pads, Petri dishes	Mr Kunda	Tel: +260977860136	P.O.Box 70881 Ndola, Zambia Provident House, 9th Floor, Room 904, Ndola, Zambia
KATKAM Ltd Laboratory chemical reagents, culture media (m-Endo), methanol, ethanol, phosphate buffer, pH buffers, Millipore products		Tel: +260955994452 Fax:+260 2 621242 Email: katkamLtd@yahoo.com	Rooms 303 &304, Buteko House, Buteko Avenue Ndola, Zambia PO Box 240225, Ndola, Zambia
Lab Galore Ltd Diagnostic reagents and chemicals, various culture media, m-Endo media, methanol and ethanol	Charles Nyirenda (Director)	Telefax: +260 211 841 003/ fax 0211 430345 Cell: +260 955/975 453 823 Email: labgalore@yahoo.com	Shop No. U5 (upstairs) Westgate Shopping Mall, Freedom Way, Lusaka, Zambia

Drinking Water Quality Testing Country Fact Sheet: Zambia

Membrane Filtration Culture Media Used in the Country

- Membrane lauryl sulphate broth (MLSB)
- m-Endo

Tips for Working in the Country

- When carrying drinking water quality testing equipment out of the country you must fill out export forms (Customs General Registration Certificates) available at the customs office. A customs officer will come and verify the items on the forms and sign off. An agent can be used if there are numerous items or a complex list. There may be fees attached. See the following page for an example Customs Form.
- Purchasing and importing equipment from out of country is often less expensive, but there are associated customs charges (depends on equipment). Not for profits and NGOs are often exempt, so this may be a viable option.
- Get price comparisons as there are sometimes large price differences between suppliers.
- Give plenty of lead time when ordering supplies. It can take a lot of time to receive orders.
- Develop networking relationships with other laboratories. They can be a valuable source of information and resource sharing.

CAWST (Centre for Affordable Water and Sanitation Technology)
Calgary, Alberta, Canada
Website: www.cawst.org Email: resources@cawst.org
Wellness through Water.... Empowering People Globally
Last Update: October 2013

This document is open content. You are free to:



- Share – to copy, distribute and transmit this document
- Remix – to adapt this document



Under the following conditions:


- Attribution. You must give credit to CAWST as the original source of the document. Please include our website: www.cawst.org

CAWST does not assume any responsibility for and makes no warranty with respect to the quality of the laboratory services, equipment or consumable products listed in this document.



Drinking Water Quality Testing Country Fact Sheet: Zambia

Example Customs Form for Zambia



FORM CT 1

ZAMBIA REVENUE AUTHORITY
Customs and Excise Division

CUSTOMS GENERAL REGISTRATION CERTIFICATE

1. Customs Port/Aerodrome: LUSAKA 2. Date: 07.03.2011

3. Name of Exporter: SEEDS OF HOPE INTERNATIONAL PARTNERSHIP

4. Address in Zambia:

(a) Postal: Box 73272 NDOLA

(b) Residential: PLOT # 384 MAKOLI RD, NDOLA

5. PARTICULARS OF GOODS

FULL DESCRIPTION OF GOODS	SERIAL NUMBERS	VALUES FOR CUSTOMS PURPOSES	FOR OFFICIAL USE ONLY
<u>EGG INCUBATOR</u>	<u>9200</u>	<u>K 60=00</u>	

6. I certify that the above mentioned goods are the property of SEEDS OF HOPE INTERNATIONAL PARTNERSHIP and are being taken out of Zambia for the purpose of PROJECT MONITORING AND EVALUATION and are to be returned to Zambia in due course.

Signature: [Signature] Date: 07.03.2011

FOR OFFICIAL USE ONLY

Name of Customs Officer: JOSEPH P.H.KI

Signature: [Signature] Date: 09/03/2011

DATE STAMP

09 MAR 2011

Port Serial No: 04-03-2011
Number / Month / Year