



SCHEDULE OF ACCREDITATION

Testing Laboratory Number: **LAS-005**

<p><u>Permanent Address of Laboratory:</u> Unit # 8 Rajkumar Street Mission Road Freeport Trinidad and Tobago. W.I.</p> <p><u>Postal Address</u> Unit # 8 Rajkumar Street Mission Road Freeport Trinidad and Tobago. W.I.</p> <p>Tel : 868-299-0009 Fax : 868-673-6774 E -mail: inquiries@kaizen-tt.com</p>		<p><u>Management Signatories:</u> Douglas De Freitas – Chief Executive Officer Anja Seejoor –Chief Technical Officer Meera Missire – Division Manager</p> <p><u>Technical Signatories:</u> Sheril Shah – Laboratory Manager</p> <p><u>Nominated Representative:</u> Meera Missire – Division Manager</p> <p><u>Certificate of Accreditation</u> Issue No.: 3 Date of issue: 21st September 2017 Expiry Date: 20th September 2020</p>	
Materials/Products Tested	Types of Tests/Properties Measured, Range of Measurement	Standard Specifications, Equipment/Techniques Used	
<u>CHEMICAL</u>			
Water & Wastewater	Determination of Total Suspended Solids (dried at 103-105°C) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. -2540 D Method No. KLABTM-WC001	
Water & Wastewater	Determination of Chemical Oxygen Demand (Closed Reflux Colorimetric Method) Units: mg O₂/L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. – 5220 D Method No. KLABTM-WC002	
Water & Wastewater	Determination of Electrical Conductivity in Liquids Units: Ms /cm	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 2510 B Method No. KLABTM-WC003	
Water & Wastewater	Determination of Dissolved Oxygen in Liquids (Membrane Electrode Method) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 4500- O G Method No. KLABTM-WC004	
Water & Wastewater	Determination of pH in Water and Wastewater Units: pH Value	Standard Methods for the Examination of Water and Wastewater 22 nd ed. – 4500 H ⁺ B Method No. KLABTM-WC005	

CHEMICAL CONTINUED		
Water & Wastewater	Determination of Total/Residual Chlorine (DPD Colorimetric Method) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 4500 Cl ⁻ G-DPD Colorimetric Method Method No. KLABTM-WC006
Water & Wastewater	Determination of Temperature (Field Laboratory Method) Units: ° Celcius	Standard Methods for the Examination of Water and Wastewater 22 nd ed. – 2550 B Method No. KLABTM-WC008
Water & Wastewater	Determination of Chloride (Argentometric Method) Units: mg Cl⁻/L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. – 4500 Cl ⁻ B Method No. KLABTM-WC009
Water & Wastewater	Determination of Colour in Liquids (Platinum-Cobalt Standard Method) Range – 15 to 500 Pt-Co Units	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 2120 C Method No. KLABTM-WC011
Water & Wastewater	Determination of Dissolved Hexavalent Chromium Liquids (1,5-Diphenylcarbohydrazide Method using powder pillows) Range – 0.01 to 0.70mg/L⁻¹	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 3500-Cr B Method No. KLABTM-WC014
Water & Wastewater	Determination of Total Dissolved Solids (TDS) in Liquids (dried at 180°C) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 2540 C Method No. KLABTM-WC030
Water & Wastewater	Determination of Total Solids (TS) in Liquids (dried at 103-105°C) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 2540 B Method No. KLABTM-WC033
Water & Wastewater	Determination of Phenols (4-Aminoantipyrine Method) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. – 5530 B, C Method No. KLABTM-LP001
Water & Wastewater	Determination of Ammoniacal Nitrogen in Liquids by Titrimetric Method Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 4500-NH ₃ -N C Method No. KLABTM-LP003
Water & Wastewater	Acid Digestion for Total Metal Analysis by Inductively Coupled Plasma Spectroscopy (ICP)	Standard Methods for the Examination of Water and Wastewater 22 nd ed. – 3030 E, F Method No. KLABTM-ICP001
Water & Wastewater	Total Metals Analysis (Chromium, Nickel, Copper, Arsenic, Cadmium, Lead, Iron, Zinc) by Inductively Coupled Plasma Spectroscopy (ICP) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. – 3120 B Method No. KLABTM-ICP002
Water & Wastewater	Determination of Total Oil and Grease (Hexane Extractable Material) and Total Petroleum Hydrocarbons (Silica Gel Treated n-Hexane Extractable Material) in Liquids Range – 5 to 1000mg /L⁻¹	US Environmental Protection Agency, USEPA 1664 Method No. KLABTM-SOL001

CHEMICAL CONTINUED		
Water & Wastewater	Determination of Total Oil and Grease (Hexane Extractable Material) and Total Petroleum Hydrocarbons (Silica Gel Treated n-Hexane Extractable Material) in Liquids using the End-Over Rotary Method Range 5 to 1000 mg /L⁻¹	US Environmental Protection Agency, USEPA 1664 Method No. KLABTM-SOL003
Water & Wastewater	Determination of Acute Toxicity by Static Testing in Liquids (Use of <i>Mysidopsis Insularis</i>) Range – 0.001 to 100% LC₅₀	US Environmental Protection Agency, EPA-821-R-02-012 Method No. KLABTM-TOX001
Water & Wastewater	Determination of Acute Toxicity for Drilling Fluids by Static Testing (Use of <i>Mysidopsis Insularis</i>) Range – 0.001 to 100% LC₅₀	US Environmental Protection Agency, EPA-821-R-02-012 and EPA-821-R-11-004 Method No. KLABTM-TOX003
Water & Wastewater	Determination of Biological Oxygen Demand in Liquids (Five-day Method) Units: mg /L	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 5210 B KLABTM-MB001

MICROBIOLOGICAL		
Water & Wastewater	Determination of <i>E. coli</i> in Liquids by Membrane Filtration Units: CFU /100ml	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 9213 D KLABTM-MB002
Water & Wastewater	Determination of <i>E. coli</i> in Liquids by Multiple Tube Fermentation Units: MPN /100ml	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 9000, 9221B, 9221 F KLABTM-MB003
Water & Wastewater	Determination of <i>E. coli</i> in Liquids using Colitag™ (Enumerative and Presumptive Methods) Units: MPN /100ml	Standard methods for the Examination of Water and Waste Water 22 nd ed. Method 9223B KLABTM-MB004
Water & Wastewater	Determination of Faecal Coliforms in Liquids by Multiple Tube Fermentation Units: MPN /100ml	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 9000, 9221B, 9221 E KLABTM-MB007
Water & Wastewater	Determination of Faecal Coliforms in Liquids by Membrane Filtration Units: CFU /100ml	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 9222 D KLABTM-MB006
Water & Wastewater	Heterotrophic Plate Count in Liquids by Enzyme Substrate Method Units: MPN /ml	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 9215 E KLABTM-MB010

<u>MICROBIOLOGICAL CONTINUED</u>		
Water & Wastewater	Determination of Total Coliforms in Liquids using Colitag™ (Enumerative and Presumptive Methods) Units: MPN /100ml	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 9223 B Colitag™ Presence and Absence water test kit CPI International KLABTM-MB013
Water & Wastewater	Determination of Total Coliforms in Liquids by Multiple Tube Fermentation Units: MPN /100ml	Standard Methods for the Examination of Water and Wastewater 22 nd ed. 9000, 9221 B KLABTM-MB014
Water & Wastewater	Determination of Total Coliforms in water by Membrane Filtration Units: CFU /100ml	Standard methods for the Examination of Water and Waste Water 22 nd ed. Part 9000, 9222 B KLABTM-MB015
Cereals, pasta chocolate, meat and meat products and beverages	Determination of Aerobic Plate Count in foods by Hydrophobic Grid Membrane Filtration Units: MPN /ml or MPN/g	AOAC Official Method 986:32 -1998 KLABTM-FA001
Cereals, pasta chocolate, meat and meat products and beverages	Determination of <i>E.coli</i> in foods by Hydrophobic Grid Membrane Filtration Units: MPN /ml or MPN/g	AOAC Official Method 997:11-1998 KLABTM-FA002
Cereals, pasta chocolate, meat and meat products and beverages	Determination of Total Coliform in foods by Hydrophobic Grid Membrane Filtration Units: MPN /ml or MPN/g	AOAC Official Method 990:11-1998 KLABTM-FA003

Initial date of accreditation: 3rd September 2014

Manager, TTLABS