Annex B

List of RSTL Services, Fees, Requirements and Turnaround Time

Microbiological Testing Laboratory (MTL)

(Submission of all samples should be pre-arranged/scheduled with the laboratory)

Sample Type	Test Service/Parameter	Test Method	Fee Per Sample (Php)	*Turnaround Time (Working Days)	Sample Requirement		
					Volume/ Size	Container	Elapsed Time of Delivery/ Transport to the Lab
Food and Food Products	Aerobic Plate Count	Pour Plate Method	550.00	5	At least 200g or as packed	Sterile or as packed	Depending on the sample. Please inquire at the laboratory.
	Total coliform MPN	Multiple Tube Fermentation Technique	550.00	7			
	E. coli Count	Multiple Tube Fermentation Technique	1,000.00	10			
	Staphylococcus aureus	Spread plate	1,200.00	10			
	Yeast and Molds Count	Pour Plate Method	550.00	10			
	Detection of *Salmonella*	3M Petrifilm	1,000.00	5			
Water (Drinking, Well Water, Source, Finished Product, Dialysis Water) and Ice	Heterotrophic Plate Count (HPC)	Pour Plate Method	550.00	5	At least 200 ml	**Sterile, wide-mouthed glass bottle or as bottled	***Not to exceed 4 hrs***. from the time of collection. Otherwise, ice samples during transport to the laboratory
	Fecal coliform Count	Multiple Tube Fermentation Technique	550.00	5			
	Total coliform Count	Multiple Tube Fermentation Technique	550.00	5			
	E. coli Count	Multiple Tube Fermentation Technique	1,000.00	5			
	Fecal coli + HPC	As cited above	1,100.00	5			
	Fecal coli + Total coli + HPC	- do -	1,200.00	5			
	Fecal coli + Total coli + HPC + *E. coli*	- do -	1,700.00	5			
	Fecal coli + Total coli	- do -	1,000.00	5			
	Fecal coli + *E. coli*	- do -	1,000.00	5			
	Fecal coliform	Presence-Absence	500.00	5			
	Total coliform/*E. coli*	Collilert-18 Enzyme Substrate (Presence-Absence)	800.00	1	100ml	**Sterile bottle	
	Total coli/*E. coli*	Collilert-18 Enzyme Substrate (Multi-Well Quanti-Tray)	1,000.00	1	100ml	**Sterile bottle	
Wastewater/ Environmental water	Total coliform Count	Multiple Tube Fermentation Technique	550.00	7	At least 200 ml	**Sterile, wide-mouthed glass bottle	***Not to exceed 6 hrs***. from the time of collection. Otherwise, ice samples during transport to the laboratory
	Fecal coliform Count	- do -	550.00	7			
	Total coli + Fecal coli	- do -	1,000.00	7			
	E. coli Count	- do -	1,000.00	7			
Swab of Food Contact Surfaces	Aerobic Plate Count	Pour Plate Method	550.00	5	N/A	**Sterile tube with sterile diluent	***Not to exceed 4 hrs***. from the time of collection. Otherwise, ice samples during transport to the laboratory

- *Turnaround Time – refers to the time from receipt of sample until Report of Analysis/Calibration is ready for release.
- **Container is provided by the laboratory.

Chemical Testing Laboratory (CTL)

(Submission of all samples other than water should be pre-arranged/scheduled with the laboratory)

Sample Type	Test service/ parameter	Test Method	Fee Per Sample (Php)	*Turn-around Time (Working days)	Sample Requirement	
					Amount	Container
Water/ Wastewater	pH value	Potentiometry, SMEWW	350.00	1	At least 2-liter sample or 500 mL per parameter	Plastic or Glass
	Color	Visual Comparison, SMEWW	250.00	1		
	Turbidity	Nephelometry, SMEWW	300.00	1		
	Total Dissolved Solids (TDS)	Gravimetry, SMEWW	600.00	4		
	Chloride	Argentometry, SMEWW	750.00	2		
	Total Hardness (TH)	Titrimetry, EDTA, SMEWW	700.00	2		
	Calcium Hardness	Titrimetry, EDTA, SMEWW	700.00	2		
	Total Hardness, Calcium & Magnesium	Titrimetry, EDTA SMEWW	1,400.00	2		
	Total Suspended Solids (TSS)	Gravimetry, SMEWW	650.00	2		
	Total Solids	Gravimetry, SMEWW	400.00	4		
	Alkalinity	Titrimetry, AOAC	500.00	2		
	Carbonates/ Bicarbonates	Titrimetry, AOAC	500.00	2		
	Conductivity	Laboratory Method, AOAC	350.00	1		
	Acidity	Titrimetry, AOAC	500.00	2		Plastic, Glass (Borosilicate)
	Salinity	Refractometry	300.00	1		Glass, wax seal
	Residual Chlorine	DPD Colorimetric Test Kit	750.00	1	500 ml	Glass, amber bottle
	Metals: Iron (Fe), Manganese (Mn), Zinc (Zn)	MPAES Direct Aspiration	1,000.00 per metal	2	At least 1-liter sample	Plastic
	Total Metals: Lead (Pb), Cadmium (Cd), Chromium (Cr), Copper (Cu)	MPAES after Nitric Acid Digestion	1,200.00 per metal	3		
	Oil and Grease	Liquid-liquid partition and Gravimetry	1,000.00	3	At least 1-liter/ trial per sample	Glass, wide-mouth
	pH, Color, Turbidity, TDS, TH, and Chloride		2,950.00	10	2-liter sample	Plastic
Alcoholic Drinks, *Beverage and Preparation	Acidity, Total Titratable	Titrimetry, AOAC	560.00	2	At least 500 ml	Plastic, Glass (Borosilicate)
	Alcohol Content	Pycnometer, AOAC	300.00	2		Plastic or Glass
	Alcohol Content (with distillation)		480.00	3		
	pH	Potentiometry, SMEWW	350.00	1		

Fats and Oils	Free Fatty Acid	Titrimetry, AOAC	500.00	2	At least 250 g or 250 ml	Plastic or Glass
	Iodine Value		600.00	2		
	Peroxide Value		600.00	2		
	Saponification Value		800.00	2		
Food and Feeds	Ash	Gravimetry, AOAC	550.00	3	At least 250 g	Plastic or Glass
	Moisture	Gravimetry, AOAC	400.00	2-5		
	Total Fat	Soxhlet Method Using Petroleum Ether with Acid Hydrolysis	1,100.00	4		
	Crude Fat	Soxhlet Method Using Petroleum Ether	1,100.00	3		
	Crude Protein/ Nitrogen,Total	Kjeldahl Method using Block Digestion & Steam Distillation	1,000.00	3		
	Crude Fiber	Weende Method,AOAC	1,380.00	4		
	Acidity	Titrimetry, AOAC		2		
	Total Carbohydrate & Energy	Calculation	180.00	1		
	pH	Potentiometry, SMEWW	350.00	1	At least 250 g	
	Total Sugar	Lane-Eynon, AOAC		4		
	Water Activity	Water activity meter	375.00	1		
	Minerals: Sodium (Na), Potassium (K), Calcium (Ca), Magnesium (Mg), Iron (Fe), Manganese (Mn), Zinc (Zn)	MPAES after Dry-Ashing	1,920.00 per metal	3		Plastic
	Chloride/ Salt as NaCl	Volhard Method, AOAC	700.00	3		
	Proximate Analysis (ash, moisture, fat, protein, total carbohydrate and energy)		3,230.00	15		Plastic or Glass
	Proximate + Total sugar + Sodium (Na) + Nutrition Facts		7,750.00	20	At least 250 g and 1 or more standard packaging size	
	Borax (Qualitative)	Qualitative Test, AOAC	500.00	3	At least 250 g	Plastic or other packaging
Sugar and Syrups	Ash	Gravimetry, AOAC	550.00	3	At least 250 g	Plastic or Glass
	Brix/Total Soluble Solids	Refractometry	480.00	1		
	Total solids	Gravimetry, Oven, AOAC	400.00	2-5		
	Moisture	Gravimetry, Oven, AOAC	400.00	2-5		
	Reducing Sugar	Lane-Eynon, Munson & Walker, AOAC	800.00	2		
	Total Sugar		1,100.00	4		
	Sucrose		1,500.00	4		
Salt	Chloride/NaCl in salt	Volhard Method, AOAC	700.00	3	At least 250 g	Plastic
	Iodine	Iodometry	700.00	3		
	Moisture	Gravimetry, AOAC	400.00	3		

Limestone, Quicklime, Hydrated Lime	Available Lime	AOAC, Lane-Eynon, Munson & Walker	500.00	2	At least 250 g	Plastic
	Calcium Oxide	Gravimetry	600.00	4		
	Moisture content		400.00	3		
Fertilizer/ Soil	pH	Potentiometry, AOAC	350.00	1	At least 250 g	Plastic
	Ash	Gravimetry, AOAC	550.00	3		
	Moisture		400.00	3		
	Total Nitrogen	Kjeldahl Method	1,000.00	3		

- *Turnaround Time – refers to the time from receipt of sample until Report of Analysis/Calibration is ready for release.

Shelf-Life Testing

(Submission of all samples other than water should be pre-arranged/scheduled with the laboratory)

Sample Type	Test service/ parameter	Test Method	Fee Per Sample (Php)	*Turn-around Time (Working days)	Sample Requirement	
					Amount	Container
Food and Food Products	Shelf-life testing	Temperature-accelerated	20,000.00	Dependent on food product and agreed study design and sampling plan	Dependent on food product and agreed study design and sampling plan	As packed. No. of packs dependent on agreed study design and sampling plan
		Direct Method				

- *Turnaround Time – refers to the time from receipt of sample until Report of Analysis/Calibration is ready for release.

Metrology Laboratory (MTRL)

Service	Sample	Calibration Method	Fee Per Sample (Php)	Turnaround Time (Working days)	Sample Requirement
Mass Calibration	**TEST WEIGHTS (M Series)**				
	1 mg to 500 g	OIML	450.00	15	Samples must be clean (free of dust or debris) upon visual inspection.
	More than 500 g up to 10 kg	OIML	600.00	15	
	More than 10 kg up to 50 kg	OIML	700.00	15	
	WEIGHING DEVICES				
	Special Accuracy I (Up to 2kg)	OIML (Using Class E2)	2000.00	Calibration done on-site	Samples must be clean upon visual inspection and where possible, error in shift test must be less than 3x the graduation
	High Accuracy II	OIML (Using Class F1/F2)	1,200.00		
	Medium Accuracy III	OIML (Using Class M1)	1,080.00	10	
	Ordinary Accuracy IIII	OIML (Using Class M1)	1,080.00	10	
	*Additional Fee for every tonne thereafter in excess of 1 tonne		20.00		
Temperature Calibration	**Liquid-In-Glass Thermometer**	Direct Comparison	1700.00	15	Samples must be clean and free of any defects such as scale uniformity, separated columns, glass chips, and trap-gas in the bulb or in the liquid column
	Digital Thermometer	Direct Comparison	1700.00	15	For samples with digital display, ensure the battery life is sufficient for the calibration process.
Volume Calibration	**TEST MEASURES**				
	Test Measure (Volumetric), 10L	Volumetric	500.00	5	Samples must be clean upon visual inspection and free of leaks
	Test Measure (Volumetric), 20L	Volumetric	600.00		

Service	Sample	Calibration Method	Fee (Php)	Turnaround Time (Working days)	Sample Requirement
Volume Calibration	**ROAD TANKER**				
	Up to 5,000 L	Volumetric	1,000.00	7	Samples must be clean upon visual inspection and free of leaks
	5,000-10,000 L	Volumetric	1,500.00		
	10,000-15,000 L	Volumetric	2,000.00		

	15,000-20,000 L	Volumetric	2,500.00		
	20,000-25,000 L	Volumetric	3,000.00		
	25,000-30,000 L	Volumetric	3,500.00		
	30,000-35,000 L	Volumetric	4,000.00		
	35,000-40,000 L	Volumetric	4,500.00		
	40,000-45,000 L	Volumetric	5,000.00		
	45,000-50,000 L	Volumetric	5,500.00		
	PROVING TANKS				
	100-400 L	Volumetric	1,500.00	5	Samples must be clean upon visual inspection and free of leaks
	500-2,000 L	Volumetric	3,000.00		
	2,000-5,000 L	Volumetric	4,500.00		

ON-SITE Calibration	**Fee (Php)**
Within 50 km radius from base laboratory (per day)	2,000.00
More than 50 km radius from base laboratory (per day)	3,000.00

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