Laboratory	**Environmental Analytical Laboratory, Department of Science, Technology and Environment, Puducherry Pollution Control Committee, R.S No. 189, Garage Building, Iyyanar Koil Street, Marie Oulgaret, Mettupalayam, Puducherry**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**TC-6480** **Page 1 of 4**
Validity	**03.11.2017 to 02.11.2019** **Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection

CHEMICAL TESTING

I.	**WATER**			
1.	**Water (Ground water, lake water, River water, Sea water)**	pH Value@25 °C	APHA 22nd Edition 2012, 4500-H^+ B Electrometric Method	2 to 12
		Conductivity@25 °C	APHA 22nd Edition 2012, 2510 B Laboratory Method	1 µS/cm to 75,000 µS/cm
		Total Suspended Solids Dried at 103-105 ºC	APHA 22nd Edition 2012, 2540 D Gravimetric Method	4 mg/l to 300 mg/l
		Turbidity	APHA 22nd Edition 2012, 2130 B Nephelometric Method	0.1 NTU to 100 NTU
		Temperature	APHA 22nd Edition 2012, 2550 B Laboratory and Field Method	15 °C to 50°C
		Total Dissolved Solids dried at 180°C	APHA 22nd Edition 2012, 2540 C Gravimetric Method	4 mg/l to 50,000 mg/l
		Chloride as Cl^-	APHA 22nd Edition 2012, 4500-Cl^- B Argentometric Method	2 mg/l to 2,000 mg/l
		Sulphate as SO_4^{2-}	APHA 22nd Edition 2012, 4500-SO_4^{2-} E Turbidimetric Method	1 mg/l to 1,000 mg/l
		Oil & grease	IS 3025 (Part 39) : 1991 (RA 2014) Partition Gravimetric Method	4 mg/l to 50 mg/l

Mallika Gope
Convener

N. Venkateswaran
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		Bio Chemical Oxygen Demand (3 days @ 27ºC)	IS 3025 (Part 44): 1993 (RA 2014)	2 mg/l to 250 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 (RA 2012)	4 mg/l to 600 mg/l
		Phosphate as PO_4^{3-}-P	APHA 22nd Edition 2012, 4500-P D Stannous Chloride Method	0.1 mg/l to 50 mg/l
		Total Fixed Solids ignited at 550 °C	APHA 22nd Edition 2012, 2540 E Gravimetric Method	4 mg/l to 15,000 mg/l
		Alkalinity as $CaCO_3$	APHA 22nd Edition 2012, 2320 B Titration Method	4 mg/l to 2,000 mg/l
		Total Hardness as $CaCO_3$	APHA 22nd Edition 2012, 2340 C EDTA Titrimetric Method	4 mg/l to 5,000 mg/l
		Calcium hardness as $CaCO_3$	APHA 22nd Edition 2012, 3500-Ca B EDTA Titrimetric Method	4 mg/l to 5,000 mg/l
		Magnesium hardness as $CaCO_3$	APHA 22nd Edition 2012, 3500-Mg B Calculation Method	2 mg/l to 2,500 mg/l
		Calcium as Ca	APHA 22nd Edition 2012, 3500-Ca B Calculation Method	2 mg/l to 1,000 mg/l
		Magnesium as Mg	APHA 22nd Edition 2012, 3500-Mg B Calculation Method	2 mg/l to 500 mg/l
		Hexavalent Chromium as Cr^{6+}	APHA 22nd Edition 2012, 3500-Cr B Colorimetric Method	0.05 mg/l to 10 mg/l

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		Dissolved Oxygen	APHA 22nd Edition 2012, 4500-O C Azide Modification	0.5 mg/l to 8 mg/l
II.	**POLLUTION AND ENVIRONMENT**			
1.	**Liquid Effluents (Effluent water, STP water)**	pH Value@25°C	APHA 22nd Edition 2012, 4500-H^+ B Electrometric Method	2 to 12
		Temperature	APHA 22nd Edition 2012, 2550 B Laboratory and Field Method	15 °C to 100 °C
		Total Suspended Solids Dried at 103-105ºC	APHA 22nd Edition 2012, 2540 D Gravimetric Method	4 mg/l to 600 mg/l
		Total Dissolved solids Dried at 180°C	APHA 22nd Edition 2012, 2540 C Gravimetric Method	4 mg/l to 50,000 mg/l
		Chloride as Cl^-	APHA 22nd Edition 2012, 4500-Cl^- B Argentometric Method	1 mg/l to 10,000 mg/l
		Sulphate as SO_4^{2-}	APHA 22nd Edition 2012, 4500-SO_4^{2-} E Turbidimetric Method	2 mg/l to 5,000 mg/l
		Oil & grease	IS 3025 (Part 39): 1991 (RA 2014) Partition Gravimetric Method	4 mg/l to 1,000 mg/l
		Bio Chemical Oxygen Demand (3 days @ 27ºC)	IS 3025 (Part 44): 1993 (RA 2014)	2 mg/l to 50,000 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 (RA 2012)	4 mg/l to 1,00,000 mg/l

Mallika Gope
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		Phosphate as PO_4^{3-}-P	APHA 22nd Edition 2012, 4500-P D Stannous Chloride Method	0.1 mg/l to 50 mg/l
		Chlorine, Residual	IS 3025 (Part 26): 1986 (RA 2014)	0.1 mg/l to 10 mg/l
		Hexavalent Chromium as Cr^{6+}	APHA 22nd Edition 2012, 3500-Cr B Colorimetric Method	0.05 mg/l to 100 mg/l
III.	**ATMOSPHERIC POLLUTION**			
1.	**Ambient Air**	Respirable Particulate Matter (size less than 10µm) or PM_{10}	IS 5182 (Part 23): 2006 (RA 2012) Cyclonic Flow Technique	10 µg/m^3 to 1,000 µg/m^3
		Sulphur Dioxide (as SO_2)	IS 5182 (Part 2): 2001 (RA 2012)	4 µg/m^3 to 200 µg/m^3
		Nitrogen Dioxide (as NO_2)	IS 5182 (Part 6): 2006 (RA 2012)	9 µg/m^3 to 400 µg/m^3
2.	**Stack Emission**	Particulate Matter (PM)	IS 11255 (Part 1): 1985 (RA 2014)	5 mg/Nm^3 to 400 mg/Nm^3
		Sulphur Dioxide (as SO_2)	IS 11255 (Part 2): 1985 (RA 2014)	4 mg/Nm^3 to 500 mg/Nm^3
		Nitrogen Dioxide (as NO_x)	IS 11255 (Part 7): 2005 (RA 2012)	4 mg/Nm^3 to 1,000 mg/Nm^3
		Flow Rate	IS 11255 (Part 3): 2008 (RA 2013)	10 Nm^3/hr to 60,000 Nm^3/hr
		Temperature		25 ºC to 500 ºC
		Velocity		1 m/s to 30 m/s
3.	**Noise Level (Industrial, Ambient, Noise)**	Noise level (L_{eq}, L_{max}, L_{min})	IS: 9989-1981 (RA 2014)	30 dB(A) to 131 dB(A)

Mallika Gope
Convener

N. Venkateswaran
Program Director