

Laboratory **Eco Care Engineering Pvt. Ltd., Plot No. 2, Door No. 11, 8th Street, Jai Nagar, Arumbakkam, Chennai, Tamil Nadu**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6657 (in lieu of T-2788)**

Page 1 of 6

Validity **11.01.2018 to 10.01.2020**

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.	Surface water / Ground Water / Drinking Water	pH @25°C	IS 3025 (Part 11)-1983 (RA 2006)	2 to 12
		Conductivity @25°C	IS 3025 (Part 14)-1984 (RA 2006)	1µS/cm to 1000 mS/cm
		Total Solids	IS 3025 (Part 15)-1984 (RA 2009)	1 mg/L to 5000 mg/L
		Total Dissolved Solids@105°C/180°C	IS 3025 (Part 16)-1984 (RA 2006)	1 mg/L to 5000 mg/L
		Total Suspended Solids	IS 3025 (Part 17)-1984 (RA 2006)	1 mg/L to 1000 mg/L
		Turbidity	IS 3025 (Part 10)-1984 (RA 2006)	0.1 NTU to 100 NTU
		Total Hardness as CaCO ₃	IS 3025 (Part 21)-2009	1 mg/L to 5000 mg/L
		Carbonate Hardness as CaCO ₃	IS 3025 (Part 21)-2009	1 mg/L to 5000 mg/L
		Calcium as Ca	IS 3025 (Part 40)-1991 (RA 2009) (EDTA Titrimetric Method)	0.5 mg/L to 5000 mg/L
		Magnesium as Mg	IS 3025 (Part 46)-1994 (RA 2009)	0.5 mg/L to 5000 mg/L
		Phenolphthalein Alkalinity as CaCO ₃	IS 3025 (Part 23)-1986 (RA 2009)	0.5 mg/L to 5000 mg/L
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23)-1986 (RA 2009)	1 mg/L to 5000 mg/L
		Chloride as Cl ⁻	IS 3025 (Part 32)-1988 (RA 2009) Argentometric Method	5 mg/L to 5000 mg/L
		Silica as SiO ₂	IS 3025 (Part 35)-1988 (RA 2009)	0.01 mg/L to 100 mg/L

**Anita Rani
Convenor**

**N. Venkateswaran
Program Director**

Laboratory **Eco Care Engineering Pvt. Ltd., Plot No. 2, Door No. 11, 8th Street,
Jai Nagar, Arumbakkam, Chennai, Tamil Nadu**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6657 (in lieu of T-2788)**

Page 2 of 6

Validity **11.01.2018 to 10.01.2020**

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
		Phosphate as Phosphorous	IS 3025 (Part 31)-1988 (RA 2009)	0.03 mg/L to 1000 mg/L
		Sulphate as SO ₄	IS 3025 (Part 24)-1986 (RA 2009)	01 mg/L to 5000 mg/L
		Chromium as Cr ⁺⁶	IS 3025 (Part 52)-2003 (RA 2009)	0.03 mg/L to 100 mg/L
II.	RESIDUE IN WATER			
1.	Trace Metal Elements (Surface water / Ground Water /Drinking Water)	Iron as Fe	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 10.0 mg/L
		Total Chromium as Cr	IS 3025 (Part 2)-2004 (RA 2014)	0.05 mg/L to 5.0 mg/L
		Nickel as Ni	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 5.0 mg/L
		Arsenic as As	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 1.0 mg/L
		Cadmium as Cd	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 1.0 mg/L
		Lead as Pb	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 5.0 mg/L
		Mercury	Method- ICP OES-Agilent (USEPA NO: EPA-600/4.79-0.020)	0.0005 mg/L to 1.0 mg/L
		Copper as Cu	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 5.0 mg/L
		Zinc as Zn	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 5.0 mg/L
		Selenium as Se	IS 3025 (Part 2)-2004 (RA 2014)	0.005 mg/L to 1.0 mg/L
	Boron as B	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 5.0 mg/L	
	Aluminium as Al	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 5.0 mg/L	

Laboratory **Eco Care Engineering Pvt. Ltd., Plot No. 2, Door No. 11, 8th Street,
Jai Nagar, Arumbakkam, Chennai, Tamil Nadu**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6657 (in lieu of T-2788)**

Page 3 of 6

Validity **11.01.2018 to 10.01.2020**

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
		Manganese as Mn	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 5.0 mg/L
III.	POLLUTION & ENVIRONMENTAL			
1.	Waste Water (Effluent / Sewage)	pH @25°C	IS 3025 (Part 11)-1983 (RA 2006)	2 to 12
		Conductivity @25°C	IS 3025 (Part 14)-1984 (RA 2006)	10 µS/cm to 10000 mS/cm
		Total Solids	IS 3025 (Part 15)-1984 (RA 2009)	1 mg/L to 10000 mg/L
		Total Dissolved Solids @105°C/180°C	IS 3025 (Part 16)-1984 (RA 2006)	1 mg/L to 10000 mg/L
		Total Suspended Solids	IS 3025 (Part 17)-1984 (RA 2006)	1 mg/L to 1000 mg/L
		Turbidity	IS 3025 (Part 10)-1984 (RA 2006)	1 NTU to 500 NTU
		Total Hardness as CaCO ₃	IS 3025 (Part 21)-2009	1 mg/L to 5000 mg/L
		Calcium as Ca	IS 3025 (Part 40)-1991 (RA 2009) (EDTA Titrimetric Method)	0.5 mg/L to 5000 mg/L
		Magnesium as Mg	IS 3025 (Part 46)-1994 (RA 2009)	0.5 mg/L to 5000 mg/L
		Phenolphthalein Alkalinity as CaCO ₃	IS 3025 (Part 23)-1996 (RA 2009)	1 mg/L to 5000 mg/L
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23)-1986 (RA 2009)	1 mg/L to 5000 mg/L
		Chloride as Cl	IS 3025 (Part 32)-1988 (RA 2009)	1 mg/L to 5000 mg/L
		Biochemical Oxygen Demand (BOD)@27°C for 3 days	IS 3025 (Part 44)-1993 (RA 2009)	5 mg/L to 6000 mg/L
		Chemical Oxygen Demand (COD)	IS 3025 (Part 58)-2006	5 mg/L to 10000 mg/L

**Anita Rani
Convenor**

**N. Venkateswaran
Program Director**

Laboratory Eco Care Engineering Pvt. Ltd., Plot No. 2, Door No. 11, 8th Street,
Jai Nagar, Arumbakkam, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6657 (in lieu of T-2788)

Page 4 of 6

Validity 11.01.2018 to 10.01.2020

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
		Oil & Grease	IS 3025 (Part 39)-1991 (RA 2009) (Partition Gravimetric Method)	5 mg/L to 1000 mg/L
		Total Chromium as Cr	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 1000 mg/L
		Nickel as Ni	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 50.0 mg/L
		Sodium as Na	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 5000 mg/L
		Potassium as K	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 500 mg/L
		Arsenic as As	IS 3025 (Part 2)-2004 (RA 2014)	0.02 mg/L to 10 mg/L
		Cadmium as Cd	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 10 mg/L
		Lead as Pb	IS 3025 (Part 2)-2004	0.02 mg/L to 50 mg/L
		Mercury	Method- ICP OES-Agilent (USEPA NO: EPA-600/4.79-0.020)	0.0005 mg/L to 5.0 mg/L
		Copper as Cu	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 100 mg/L
		Zinc as Zn	IS 3025 (Part 2)-2004 (RA 2014)	0.05 mg/L to 500 mg/L
		Selenium as Se	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 5.0 mg/L
		Boron as B	IS 3025 (Part 2)-2004 (RA 2014)	0.01 mg/L to 100 mg/L
		Silica as SiO ₂	IS 3025 (Part 35)-1988 (RA 2009)	0.01 mg/L to 100 mg/L
		Phosphate as Phosphorous	IS 3025 (Part 31)-1988 (RA 2009)	0.03 mg/L to 1000 mg/L
		Sulphate as SO ₄	IS 3025 (Part 24)-1986 (RA 2009)	01 mg/L to 5000 mg/L

Anita Rani
Convenor

N. Venkateswaran
Program Director

Laboratory **Eco Care Engineering Pvt. Ltd., Plot No. 2, Door No. 11, 8th Street, Jai Nagar, Arumbakkam, Chennai, Tamil Nadu**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6657 (in lieu of T-2788)**

Page 5 of 6

Validity **11.01.2018 to 10.01.2020**

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
		Chromium as Cr ⁺⁶	IS 3025 (Part 52)-2003 (RA 2009)	0.03 mg/L to 500 mg/L
IV.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	PM ₁₀	IS 5182 (Part 23)-2006	10 µg/m ³ to 5000 µg/m ³
		PM _{2.5}	ECE/SOP/2012/PM2.5 /01 (Issue No:2 dt.15.07.2014)	10 µg/m ³ to 1000 µg/m ³
		Sulphur Dioxide	IS 5182 (Part 2)-2001 (RA 2012)	4 µg/m ³ to 600 µg/m ³
		Oxides Of Nitrogen	IS 5182 (Part 6)-2006	6 µg/m ³ to 600 µg/m ³
		Ozone (O ₃)	IS 5182 (Part 18)-1974 & SOP/2012/O3/05 Issue no:2 dt:15.07.2017	5 µg/m ³ to 200 µg/m ³
		Lead (Pb)	IS 5182 (Part 22)-2004 (RA 2014)	0.02 µg/m ³ to 5.0 µg/m ³
		Ammonia (NH ₃)	ECE/SOP/2015/Air-03 Issue no:3 dt:26.06.2015	5 µg/m ³ to 500 µg/m ³
		Arsenic (As)	ECE/SOP/2017/As Issue no:01 dt:11.10.2017	1 ng/m ³ to 10.0 ng/m ³
		Nickel (Ni)	ECE/SOP/2017/Ni Issue no:01 dt:11.10.2017	5 ng/m ³ to 500.0 ng/m ³
2.	Stack Emission	Particulate Matter	IS 11255 (Part 1)-1985 (RA 2006)	1 mg/Nm ³ to 300 mg/Nm ³
		Sulphur dioxide	IS 11255 (Part 2)-1985 (RA 2009)	3 mg/Nm ³ to 500 mg/Nm ³
		Oxides Of Nitrogen	IS 11255 (Part 7)-2005	3 mg/Nm ³ to 400 mg/Nm ³
		Carbon Monoxide	IS 13270-1992 (RA 2009) (ORSAT Analysis)	0.2 % to 10 %
		Velocity	IS 11255 (Part 3)-2008	5 m/s to 30 m/s
		Volume Gas Discharge	IS 11255 (Part 3)-2008	100 Nm ³ /hr to 250000 Nm ³ /hr

Anita Rani
Convenor

N. Venkateswaran
Program Director

Laboratory Eco Care Engineering Pvt. Ltd., Plot No. 2, Door No. 11, 8th Street,
Jai Nagar, Arumbakkam, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6657 (in lieu of T-2788)

Page 6 of 6

Validity 11.01.2018 to 10.01.2020

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
3.	Ambient Noise Levels	Noise Level	IS 9989-1981 (RA 2009)	35 dB(A) to 150 dB(A) (35 to 150) dB(A)Leq
4.	Source Noise Levels	Noise Level	IS 7194-1994 (RA 2008)	35 dB(A) to 150 dB(A)

Anita Rani
Convenor

N. Venkateswaran
Program Director