

Laboratory **Enviro-International, Plot No. 138-139, Udyog Kendra-II Extn. Eco Tech-III, Greater Noida, G.B. Nagar, Uttar Pradesh**

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

Certificate Number **TC-6545**

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Validity **15.11.2017 to 14.11.2019**

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
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CHEMICAL TESTING

AT LABORATORY				
I.	WATER			
1.	Drinking Water/ Portable water/ Ground Water	Colour	IS 3025 (Part 4): 1983 (RA 2012)	1 Hazen Units to 100 Hazen Units
		Turbidity	IS 3025 (Part 10): 1984 (RA 2006)	1 NTU to 100 NTU
		pH @ 25°C	IS 3025 (Part 11): 1984 (RA 2006)	2 to 13
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006)	5 mg/l to 2000 mg/l
		Aluminium as Al	IS 3025 (Part 55): 2003 (a)	0.05 mg/l to 2 mg/l
		Ammonia as NH ₃ -N	IS 3025 (Part 34): 1988 (RA 2009)	0.5 mg/l to 50 mg/l
		Boron as B	Annex H of IS 13428:2005	0.05 mg/l to 0.5 mg/l
		Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2009)	1 mg/l to 1000 mg/l
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2009)	1 mg/l to 1000 mg/l
		Fluoride as F	APHA-23 rd Ed 2012-4500 D IS 3025 (Part 60): 2008	0.1 mg/l to 10 mg/l
		Free residual chlorine	IS 3025 (Part 26): 2003 (RA 2006)	0.1 mg/l to 10 mg/l
		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009)	0.05 mg/l to 10 mg/l
		Magnesium as Mg	APHA-(22 rd Ed 2012)-3500	1 mg/l to 1000 mg/l
		Nitrate as NO ₃	APHA-(22 rd Ed) 2012-4500 B IS 3025 (Part 34): 1988 (RA 1999)	1 to 100 mg/l

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		Nitrite as NO ₂	IS 3025 (Part 34): 1988 (RA 2003)	0.05 mg/l to 50 mg/l
		Sulphate as SO ₄	IS 3025 (Part 24):1986 (RA 2003)	1 mg/l to 100 mg/l
		Sulphide as H ₂ S	IS 3025 (Part 29): 1986 (RA 1998)	0.01 mg/l to 1 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 1000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 (RA 2014)	2 mg/l to 1000 mg/l
		Sodium as Na	IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 500 mg/l
		Potassium as K	IS 3025 (Part 45):1993 (RA 2003)	1 to 100 mg/l
		Acidity as CaCO ₃	IS 3025 (Part 22):1986 (RA 2003)	2 mg/l to 500 mg/l
2.	Surface Water/ Irrigation, Industrial Cooling Water/Boiler Water Bore well/ Domestic	Colour	IS 3025 (Part 4): 1983 (RA 2012) Cl 2.0	1 Hazen Units to 100 Hazen Units
		Turbidity	IS 3025 (Part 10): 1984 (RA 2006)	1 NTU to 200 NTU
		pH @ 25°C	IS 3025 (Part 11): 1984 (RA 2006)	2-13
		Oxygen Dissolved (DO)	IS 3025 (Part 38): 1984 (RA 2014)	1 mg/l to 10 mg/l
		Phosphorus as P	APHA-(22 nd Ed) 2012-4500-D	0.5 mg/l to 50 mg/l
		Total Dissolved Solids	IS 3025 (Part 16):1984 (RA 2006)	5 mg/l to 50000 mg/l
		Solids- Fixed & Volatile	APHA-(22 nd Ed) 2012-2540 E Ignited at 550 °C	5 mg/l to 5000 mg/l
		Ammonia as NH ₃ -N	IS 3025 (Part-34):1988 (RA 2009)	1 mg/l to 50 mg/l
		Boron as B	Annex H of IS 13428: 2005 (RA 2006)	0.05 mg/l to 10 mg/l

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		Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2009)	5 mg/l to 5000 mg/l
		Chloride as Cl	IS 3025 (Part-32): 1988 (RA 2009)	10 mg/l to 50000 mg/l
		Fluoride as F	IS 3025 (Part-60): 2008	0.2 mg/l to 20 mg/l
		Free residual chlorine	APHA-(22 nd Ed)2012-4500 D APHA-(22 nd Ed) 2012-4500G DPD Colorimetric Method	0.1 mg/l to 10 mg/l
		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009)	0.05 mg/l to 10 mg/l
		Magnesium as Mg	APHA-(22 nd Ed) 2012-3500-Mg B	5 mg/l to 2000 mg/l
		Biochemical Oxygen Demand (BOD)	IS: 3025 (Part 44):1993 (R-1999) Ad.1 BOD 3-days at 27 °C	2 mg/l to 1000 mg/l
		Chemical Oxygen Demand (COD)	IS 3025 (Part 58) (RA 2012)	5 mg/l to 2000 mg/l
		Oil & Grease	IS 3025 (Part 39) (RA 2003)	4 mg/l to 40 mg/l
		Nitrate as NO ₃	IS 3025 (Part-34) 1988 (RA1999)	1 mg/l to 100 mg/l
		Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 2003) Turbidity Method	5 mg/l to 1000 mg/l
		Sulphide as H ₂ S	IS 3025 (Part 29): 1986 (RA 1992)	0.1 mg/l to 10 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	5 mg/l to 5000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 (RA 2014)	5 mg/l to 5000 mg/l
		Silica as SiO ₂	APHA-(22 nd Ed)2012-4500C	1 mg/l to 200 mg/l

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II.	POLLUTION & ENVIRONMENT			
1.	Liquid Effluent/ Waste Water/ ETP/STP	Colour	IS 3025 (Part- 4): 1983 (RA 2012)	1 Hazen Units to 100 Hazen Units
		Conductivity	IS 3025 (Part-14): 2013	1 μ mho/cm to 20000 μ mho/cm
		Temperature	APHA-(22 nd Ed)2012-2550 B	1°C to 50°C
		Turbidity	IS 3025 (Part-10): 1984 (RA 2006)	1 NTU to 200 NTU
		pH @ 25°C	IS 3025 (Part-11):1984 (RA 2006)	2 – 13
		Phosphate as PO ₄	APHA-(22 nd Ed)2012-4500-D	0.5 mg/l to 50 mg/l
		Total Dissolved Solids	IS 3025 (Part-16):1984 (RA 2006)	5 mg/l to 50000 mg/l
		Mixed Liquor Volatile Suspended Solid	APHA-(22 nd Ed)2012- 2540 E	5 mg/l to 5000 mg/l
		Mixed Liquor Suspended Solid	IS 3025 (Part-16):1984 (RA 2000)	5 mg/l to 10000 mg/l
		Ammonia as NH ₃ -N	IS 3025 (Part-34):1988 (RA 2009) Titrimetric Method	1 mg/l to 100 mg/l
		Total Kjeldhal Nitrogen as NH ₃	IS 3025 (Part-34):1988 (RA 2014)	1 mg/l to 200 mg/l
		Boron as B	APHA-(22 nd Ed) 2012-4500C	1 mg/l to 20 mg/l
		Calcium as Ca	IS 3025 (Part 40):1991 (RA 2009)	5 mg/l to 5000 mg/l
		Chloride as Cl	IS 3025 (Part 32):1988 (RA 2009)	10 mg/l to 5000 mg/l
	Fluoride as F	IS 3025 (Part 60):2008 APHA-(22 nd Ed) 2012-4500 D SPADNS Method	0.2 mg/l to 20 mg/l	

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		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009)	0.05 mg/l to 10 mg/l
		Magnesium as Mg	APHA-(22 nd Ed) 2012-3500-Mg B	5 mg/l to 2000 mg/l
		Biochemical Oxygen Demand (BOD)	IS: 3025 (Part 44)-1993 R-1999 Ad.1 BOD 3-days at 27 °C	2 mg/l to 50000 mg/l
		Chemical Oxygen Demand (COD)	IS 3025 (Part 58) (RA 2012)	5 mg/l to 100000 mg/l
		Oil & Grease	IS 3025 (Part 39) (RA 2003)	4 mg/l to 40 mg/l
		Nitrate as NO ₃	IS 3025 (Part 34) 1988 (RA 2009)	1 mg/l to 100 mg/l
		Sulphate as SO ₄	IS 3025 (Part 24) (RA 2014)	5 mg/l to 5000 mg/l
		Sulphide as H ₂ S	IS 3025 (Part 29): 1986 (RA 1992)	0.1 mg/l to 10 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	5 mg/l to 5000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 (RA 2014)	5 mg/l to 5000 mg/l
		Total Solids	IS 3025 (Part 15): 1984 (RA 2006)	10 mg/l to 50000 mg/l
		Silica as SiO ₂	APHA-(22 nd Ed) 2012-4500C	1 mg/l to 200 mg/l
		Sodium as Na	IS 3025 (Part-45):1993 (RA 2003)	1 mg/l to 500 mg/l
		Potassium as K	IS 3025 (Part-45):1993 (RA 2003)	1 mg/l to 100 mg/l

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III.	ATMOSPHERIC POLLUTION			
1.	Ambient Air Quality /Work Zone Emissions	Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2001 (RA 2012)	5 µg/m ³ to 1000 µg/m ³
		Oxides of Nitrogen	IS 5182 (Part 6): 2006 (RA 2012)	7 µg/m ³ to 750 µg/m ³
		Respirable Suspended Particulate Matter (PM ₁₀)	IS 5182 (Part 23): 2006	5 µg/m ³ to 5000 µg/m ³
		Particulate Matter (PM _{2.5})	Lab SOP: EIL/SOP/AAQ/01 as per CPCB guidelines Vol.-1, 2012	5 µg/m ³ to 500 µg/m ³
		Ammonia as NH ₃	Lab SOP: EIL/SOP/AAQ/02 as per CPCB guidelines Vol.-1, 2012	5 µg/m ³ to 1000 µg/m ³
		Ozone as O ₃	IS 5182 (Part 9): 2006 (RA 2014)	5 µg/m ³ to 1000 µg/m ³
2.	Stack Emissions/ Gaseous Pollutants	Temperature	IS 11255 (Part-3): 2008 (RA 2013)	Ambient to 600°C
		Flue gas velocity	IS 11255 (Part 3): 2008 (RA 2013)	3 m/s to 60 m/s
		Particulate Matter	IS 11255 (Part 1): 1985 (2003) (RA 2014)	5 mg/Nm ³ to 1000 mg/Nm ³
		Sulphur dioxide as SO ₂	IS 11255 (Part 2): 1985 USEPA 6C:1996	5 mg/Nm ³ to 5000 mg/Nm ³
		Oxides of Nitrogen	IS 11255 (Part 7): 2005 (RA 2012)	2 mg/Nm ³ to 10,000 mg/Nm ³

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CHEMICAL TESTING

AT SITE				
I.	ATMOSPHERIC POLLUTION			
1.	Stack Emissions/ Gaseous Pollutants	Sulphur dioxide as SO ₂	By Flue gas analyzer (Lab SOP: EIL/SOP/SE/01)	5 mg/Nm ³ to 5000 mg/Nm ³
		Oxides of Nitrogen	By Flue gas analyzer (Lab SOP: EIL/SOP/SE/01)	4 mg/Nm ³ to 2000 mg/Nm ³
		Carbon dioxide as CO ₂	By Flue gas analyzer (Lab SOP: EIL/SOP/SE/01)	0.2 % to 20 %
		Carbon monoxide as CO	By Flue gas analyzer (Lab SOP: EIL/SOP/SE/01)	1ppm to 500 ppm
		Oxygen as O ₂	By Flue gas analyzer (Lab SOP: EIL/SOP/SE/01)	1 % to 25 %
2.	Noise	Noise Level LEq dB(A) Ambient	IS 9989-1981 (RA 2014) (Lab SOP: EIL/SOP/NL/01)	30 dB(A) to 130 dB(A)

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