

Laboratory	Excel Enviro Tech, TF-2 & FF-1, Sun House, Off. Ashram Road, Ahmedabad, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	26.06.2015
Certificate Number	T-3482	Valid Until	25.06.2017
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S. No.	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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AT LABORATORY

I. WATER

1.	Ground and Surface Water	pH	IS 3025 (Part 11): 1983 (RA 2002) Electrometric Method	1.0 to 13.0
		Color	APHA (22 nd Edition) 2120-C: 2012 Spectrophotometric - Single Wavelength Method	5 Co. pt. Units to 300 Co. pt. Units
		Odour	IS 3025 (Part 5): 1983 (RA 2002)	Qualitative
		Turbidity	IS 3025 (Part 10): 1984 (RA 2002) Nephelometric Method	2.0 NTU to 100 NTU
		Electrical Conductivity	IS 3025 (Part 14): 2013	2 µS/cm to 50000 µS/cm
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) Gravimetric Method	5.0 mg/l to 20000 mg/l
		Total Solids	APHA (22 nd Edition) 2540-B: 2012 Gravimetric Method	5 mg/l to 20000 mg/l
		Total Suspended Solids	IS 3025 (Part 17):1984 (RA 2012) Gravimetric Method	2 mg/l to 1000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 EDTA Titrimetric Method	5 mg/l to 5000 mg/l
		Calcium as Ca	APHA (22 nd Edition) 3500-Ca- B:2012 EDTA Titrimetric	2 mg/l to 500 mg/l
		Magnesium as Mg	APHA (22 nd Edition) 3500-Mg-B: 2012 Calculation Method	2 mg/l to 500 mg/l

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	Ground and Surface Water	Chloride as Cl	IS 3025 (Part 32):1988 (RA 2007) Argentometric Method	2 mg/l to 5000 mg/l
		Sulphate as SO ₄	APHA (22 nd Edition) 4500- SO ₄ ²⁻ E: 2012 Turbidimetric Method	5 mg/l to 2000 mg/l
		Fluoride as F ⁻	APHA (22 nd Edition) 4500-F D: 2012 SPANDS Method	0.2 mg/l to 50 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003) Indicator Titration Method	0 to 5000 mg/l
		Acidity as CaCO ₃	IS 3025 (Part 22): 1986 (RA 2003) Indicator Titration Method	5 mg/l to 5000 mg/l
		Residual Free Chlorine	IS 3025 (Part 26): 1986 (RA 2003) Iodometric Method	0.1 mg/l to 10 mg/l
		Oil & Grease	APHA (22 nd Edition) 5520-B: 2012 Partition Gravimetric Method	1 mg/l to 50 mg/l
		Ammonical Nitrogen as NH ₃ -N	IS 3025 (Part 34): 1988 (RA 2003) Titrimetric Method	0.3 mg/l to 50 mg/l
		Phenolic Compounds as C ₆ H ₅ OH	APHA (22 nd Edition) 5530-D: 2012 Direct Photometric Method	0.01 mg/l to 20 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 Open Reflux Method	4 mg/l to 2000 mg/l
	Bio Chemical Oxygen Demand @ 27 °C for 3 Days	IS 3025 (Part 44):1993 (RA 2003) Oxygen Depletion method	2 mg/l to 500 mg/l	

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	Ground and Surface Water	Dissolved Oxygen (DO)	APHA (22 nd Edition) 4500- O-C: 2012 Azide Modification	0.1 mg/l to 10.0 mg/l
		Nitrate as NO ₃ ⁻	IS 3025 (Part 34):1998 (RA 2003) (Chromotropic Acid Method)	0.5 mg/l to 50 mg/l
		Phosphate as PO ₄	IS 3025 (Part 31): 1998 (RA 2003) SnCl ₂ Method	0.5 mg/l to 50 mg/l
		Reactive Silica as SiO ₂	IS 3025 (Part 35): 1988 (RA 2003) Molybdosilicate Method	0.5 mg/l to 50 mg/l
		Sulphide as SO ₃	APHA (22 nd Edition) 4500-S ⁻² F: 2012 Iodometric Method	1.0 mg/l to 20 mg/l
		Sodium as Na	IS 3025 (Part 45): 1993 (RA 2003) Flame Photometry Method	1.0 mg/l to 1000 mg/l
		Potassium as K	IS 3025 (Part 45): 1993 (RA 2003) Flame Photometry Method	1.0 mg/l to 1000 mg/l
		Boron as B	IS 3025 (Part 57): 2005 (RA 2009) Colorimetric Curcumine Method	0.05 mg/l to 20 mg/l
		Hexa Valent Chromium as Cr ⁺⁶	IS 3025 (Part 52): 2003 (RA 2003) Diphenylcarbazide method	0.05 mg/l to 20 mg/l
		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2003) 1,10 Phenanthroline Method	0.1 mg/l to 50 mg/l
II. POLLUTION & ENVIRONMENT				
1.	Waste Water (Sewage /Effluent)	pH	IS 3025 (Part 11): 1983 (RA 2002) (Electrometric Method)	0.1 to 13.9
		Turbidity	IS 3025 (Part 10):1984 (RA 2002) Nephelometric Method	2.0 NTU to 190 NTU

**Anita Rani
Convenor**

**N. Venkateswaran
Program Manager**

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	Waste Water (Sewage /Effluent)	Electrical Conductivity	IS 3025 (Part 14): 2013	2 µS/cm to 50000 µS/cm
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) Gravimetric Method	5 mg/l to 3,00,000 mg/l
		Total Solids	APHA (22 nd Edition) 2540-B: 2012 Gravimetric Method	5 mg/l to 300000 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 2012) Gravimetric Method	2 mg/l to 20,000 mg/l
		Calcium as Ca	APHA (22 nd Edition) 3500-Ca- B: 2012 EDTA Titrimetric	2 mg/l to 2400 mg/l
		Magnesium as Mg	APHA (22 nd Edition) 3500-Mg-B: 2012 Calculation Method	2 mg/l to 1000 mg/l
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2007) Argentometric Method	2 mg/l to 80000 mg/l
		Sulphate as SO ₄	APHA (22 nd Edition) 4500-SO ₄ ²⁻ E: 2012 Turbidimetric Method	5 mg/l to 50000 mg/l
		Fluoride as F ⁻	APHA (22 nd Edition) 4500-F ⁻ , D: 2012 SPANDS Method	0.2 mg/l to 100 mg/l
		Acidity as CaCO ₃	IS 3025 (Part 22):1986 (RA 2003) Indicator Titration Method	5 mg/l to 5000 mg/l
		Residual Free Chlorine	IS 3025 (Part 26):1986 (RA 2003) Iodometric Method	1.0 mg/l to 50 mg/l
		Oil & Grease	APHA (22 nd Edition) 5520 B: 2012 Partition Gravimetric Method	1 mg/l to 500 mg/l

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	Waste Water (Sewage /Effluent)	Ammonical Nitrogen as NH ₃ -N	IS 3025 (Part 34): 1988 (RA 2003) Titrimetric Method	0.3 mg/l to 10000 mg/l
		Phenolic Compounds as C ₆ H ₅ OH	APHA (22 nd Edition) 5530-D: 2012 Direct Photometric Method	0.01 mg/l to 100 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 Open Reflux Method	4 mg/l to 300,000 mg/l
		Bio Chemical Oxygen Demand @ 27 °C for 3 Days	IS 3025 (Part 44): 1993 (RA 2003) Oxygen Depletion method	2 mg/l to 50,000 mg/l
		Dissolved Oxygen (DO)	APHA (22 nd Edition) 4500- O-C: 2012 Azide Modification	0.1 mg/l to 10 mg/l
		Nitrate as NO ₃ ⁻	IS 3025 (Part 34): 1998 (RA 2003) (Chromotropic Acid Method)	0.5 mg/l to 100 mg/l
		Phosphate as PO ₄	IS 3025 (Part 31): 1998 (RA 2003) SnCl ₂ Method	0.5 mg/l to 100 mg/l
		Sulphide as SO ₃	APHA (22 nd Edition) 4500-S ⁻² F: 2012 Iodometric Method	1 mg/l to 100 mg/l
		Sodium as Na	IS 3025 (Part 45): 1993 (RA 2003) Flame Photometry Method	1 mg/l to 1000 mg/l
		Potassium as K	IS 3025 (Part 45): 1993 (RA 2003) Flame Photometry Method	1 mg/l to 1000 mg/l
		Boron as B	IS 3025 (Part 57): 2005 (RA 2009) Colorimetric Curcumine Method	0.05 mg/l to 50 mg/l

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	Waste Water (Sewage /Effluent)	Hexa Valent Chromium as Cr ⁺⁶	IS 3025 (Part 52): 2003 (RA 2003) Diphenylcarbazide Method	0.05 mg/l to 20 mg/l
		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2003) 1,10 Phenonthroline Method	0.1 mg/l to 50 mg/l
III. AIR, GASES & ATMOSPHERE				
1.	Stack emission	Particulate Matter as PM	IS 11255 (Part 1): 1985 (RA 2003) & IS 11255 (Part 3): 2008 Thimble Sampling Method	5.0 mg/Nm ³ to 2000 mg/Nm ³
		Sulphur Dioxide as SO ₂	IS 11255 (Part 2): 1985 (RA 2003) IPA- Thorin Method	3.0 mg/Nm ³ to 2000 mg/Nm ³
		Oxides of Nitrogen as NO _x	IS 11255 (Part 7): 2005	2.0 mg/Nm ³ to 1000 mg/Nm ³
		Orsat gas Analyzer CO ₂	IS 13270: 1992 (RA 2003) Orsat Analysis	0.2 % to 25 %
		Orsat gas Analyzer O ₂	IS 13270: 1992 (RA 2003) Orsat Analysis	0.2 % to 25 %
2.	Ambient Air	Particulate Matter (size less than 10 µm) as PM 10	IS 5182 (Part 23): 2006	5.0 µg/m ³ to 1000 µg/m ³
		Particulate Matter (size less than 2.5 µm) as PM 2.5	Lab SOP 37 dated 01-Jul-2014	5.0 µg/m ³ to 250 µg/m ³
		Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2001	5.0 µg/m ³ to 100 µg/m ³
		Nitrogen Dioxide as NO ₂	IS 5182 (Part 6): 2006	6 µg/m ³ to 100 µg/m ³

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AT SITE

I. AIR, GASES & ATMOSPHERE

1.	Ambient Air	Ambient Noise	Lab SOP 44 dated 05 – may – 2015	30 dB to 130 dB(A)
		Source Noise (D. G. Sets)	Lab SOP 44 dated 05 – may – 2015	30 dB to 130 dB(A)

-X-X-X-X-X-X-X-X-X-X-X-X-