

Laboratory	SES- Environmental Testing Lab., Sunray Enviro Systems, No. 25, New No. 3, 3rd Cross, KG Road, Bangalore, Karnataka		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	13.01.2015
Certificate Number	T-3267	Valid Until	12.01.2017
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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
I. AIR, GASES & ATMOSPHERE				
1.	Stack Emission Monitoring	Particulate Matter	IS 11255 (Part 1): 1985 (RA 2003)	1.0 mg/Nm ³ to 300 mg/Nm ³
		Oxides of Sulphur	IS 11255 (Part 2): 1985 (RA 2003)	3.0 mg/Nm ³ to 500 mg/Nm ³
		Oxides of Nitrogen	IS 11255 (Part 7): 2005	3.0 mg/Nm ³ to 400 mg/Nm ³
2.	Ambient Air Monitoring	Sulphur Dioxide	IS 5182 (Part 2): 2001	3.0 µg/m ³ to 500 µg/m ³
		Nitrogen Dioxide	IS 5182 (Part 6): 2006	3.0 µg/m ³ to 500 µg/m ³
		Particulate Matter (Size less than 10µm) or PM10	IS 5182 (Part 23): 2006	5.0 µg/m ³ to 600 µg/m ³
		Particulate Matter (Size less than 2.5µm) or PM2.5	PM2.5 – USEPA Quality Assurance Hand Book Vol. Part 11	5.0 µg/m ³ to 600 µg/m ³
		Ambient Noise	IS 9989: 1985 (RA 2004)	20 dBA to 100 dBA
		Light Illumination	BS 667: 2005	50 Lux to 2000 Lux
II. WATER				
1.	Borewell Water , Potable Water, Surface water, Ground water , well water	pH	IS 3025 (Part 11): 1983 (RA 2012) Electrometric Method	1 to 14.0
		Conductivity	IS 3025 (Part 14): 2013 ISO 7888 : 1985	0.1 µs/cm to 10000 µs/cm
		Turbidity	IS 3025 (Part 10): 1984 (RA 2002)	0.01 NTU to 100 NTU

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	Borewell Water , Potable Water, Surface water, Ground water , well water	Colour	IS 3025 (Part 4): 1983 Visual Comparison method	5 Hazen units to 70 Hazen units
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 EDTA Titrimetric Method	1 mg/L to 5000 mg/L
		Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2009) EDTA Titrimetric Method	1 mg/L to 4000 mg/L
		Magnesium as Mg	IS 3025 (Part 46): 1994 (RA 2009) EDTA Titrimetric Method	1 mg/L to 4000 mg/L
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2009) Argentometric Method	1 mg/L to 4000 mg/L
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003) Indicator Method	1 mg/L to 2000 mg/L
		Total Suspended Solids	IS 3025 (Part 15): 1984 (RA 2009) Gravimetric Method	1 mg/L to 500 mg/L
		Total Dissolved Solids	IS 3025 (Part 15) : 1984 (RA 2009) Gravimetric Method	1 mg/L to 5000 mg/L
		Sulfate as SO ₄	IS 3025 (Part 24): 1986 (RA 2009) Gravimetric Method	1 mg/L to 500 mg/L

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	Borewell Water , Potable Water, Surface water, Ground water , well water	Nitrate as NO ₃ - N	IS 3025 (Part 34): 1988 (RA 2009) Cadmium Reduction Method	0.1 mg/L to 100 mg/L
		Nitrite as NO ₂ - N	IS 3025 (Part 34): 1988 (RA 2009) Spectrophotometric Method	0.1 mg/L to 100 mg/L
		Ammonical Nitrogen NH ₃ - N	IS 3025(Part 34): 1988 (RA 2009) Distillation followed by Titration Method	1 mg/L to 100 mg/L
		Organic Nitrogen	IS 3025(Part 34): 1988 (RA 2009) Distillation followed by Titration Method	1 mg/L to 100 mg/L
		Total Solids	IS 3025 (Part 15): 1984 (RA 2009) Gravimetric Method	1 mg/L to 6000 mg/L
		Iron as Fe	IS 3025(Part 53): 2003 (RA 2009) 1,10 Phenanthroline Method	0.02 mg/L to 50 mg/L
		Chlorine Residual	IS 3025 (Part 26): 1986 (RA 2003) Iodometric Method	1 mg/L to 50 mg/L
		Sulphide	IS 3025 (Part 29): 1986 (RA 2003) Iodometric Method	1 mg/L to 100 mg/L

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	Borewell Water , Potable Water, Surface water, Ground water , well water	Phosphorous	IS 3025 (Part 31): 1988 (RA 2003) Molybdate method	0.5 mg/L to 250 mg/L
		Boron as B	IS 3025(Part 57): 2005 (RA 2010) Colorimetric Curcumin Method	0.02 mg/L to 10 mg/L
		Fluoride as F	IS 3025(Part 60): 2008 Zirconium Alizarin Method	0.05 mg/L to 10 mg/L
		Dissolved Oxygen	IS 3025(Part 38): 1989 Wrinkler's method	1 mg/L to 10 mg/L
		Acidity as CaCO ₃	IS 3025(Part 22): 1986 (RA 2009) Indicator Method	1 mg/L to 5000 mg/L
		Oil & Grease	IS 3025 (Part 39): 1991 (RA 2003) Partition Gravimetric method	1 mg/L to 1000 mg/L
		Temperature	IS 3025 (Part 9): 1984 (RA 2012)	20 °C to 40 °C
2.	STP untreated , ETP untreated , STP treated , ETP treated , Industrial Waste water	pH	IS 3025 (Part 11): 1983 (RA 2012) Electrometric Method	1 to 14.0
		Conductivity	IS 3025(Part 14): 2013 ISO 7888 :1985	0.1 µs/cm to 100000 µs/cm
		Turbidity	IS 3025 (Part 4): 2013 ISO 7888 :1985	0.01 NTU to 1000 NTU

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	STP untreated , ETP untreated , STP treated , ETP treated , Industrial Waste water	Colour	IS 3025(Part 4): 1983 Visual Comparison method	5 Hazen units to 70 Hazen units
		Total Hardness as CaCO ₃	IS 3025(Part 21): 2009 EDTA Titrimetric Method	1 mg/L to 5000 mg/L
		Calcium as Ca	IS 3025(Part 40): 1991 (RA 2009) EDTA Titrimetric Method	1 mg/L to 4000 mg/L
		Nitrite as NO ₂ - N	IS 3025(Part 34): 1988 (RA 2009) Spectrophotometric Method	0.1 mg/L to 200 mg/L
		Ammonical Nitrogen NH ₃ - N	IS 3025 (Part 34): 1988 (RA 2009) Distillation followed by Titration Method	1 mg/L to 200 mg/L
		Organic Nitrogen	IS 3025 (Part 34): 1988 (RA 2009) Distillation followed by Titration Method	1 mg/L to 200 mg/L
		Total Solids	IS 3025 (Part 15): 1984 (RA 2009) Gravimetric Method	1 mg/L to 50000 mg/L
		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009) 1,10 Phenanthroline Method	0.02 mg/L to 200 mg/L
		Chlorine Residual	IS 3025 (Part 26): 1986 (RA 2003) Iodometric Method	1 mg/L to 50 mg/L

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	STP untreated , ETP untreated , STP treated , ETP treated , Industrial Waste water	Sulphide	IS 3025 (Part 29): 1986 (RA 2003) Iodometric Method	1 mg/L to 100 mg/L
		Phosphorous	IS 3025 (Part 31): 1988 (RA 2003) Molybdate method	1 mg/L to 200 mg/L
		Boron as B	IS 3025 (Part 57): 2005 (RA 2010) Colorimetric Curcumin Method	0.02 mg/L to 100 mg/L
		Fluoride as F	IS 3025 (Part 60): 2008 Zirconium Alizarin Method	0.05 mg/L to 10 mg/L
		Dissolved Oxygen	IS 3025 (Part 38): 1989 Winkler's method	1 mg/L to 10 mg/L
		Acidity as CaCO ₃	IS 3025 (Part 22): 1986 (RA 2009) Indicator Method	1 mg/L to 10000 mg/L
		Oil & Grease	IS 3025 (Part 39): 1991 (RA 2003) Partition Gravimetric method	1 mg/L to 1000 mg/L
		Temperature	IS 3025 (Part 9): 1984 (RA 2012)	20 °C to 40 °C
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2009) Argentometric Method	1 mg/L to 25000 mg/L

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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
	STP untreated , ETP untreated , STP treated , ETP treated , Industrial Waste water	Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003) Indicator Method	1 mg/L to 5000 mg/L
		Total Suspended Solids	IS 3025(Part 15) : 1984 (RA 2009) Gravimetric Method	1 mg/L to 2000 mg/L
		Total Dissolved Solids	IS 3025 (Part 15): 1984 (RA 2009) Gravimetric Method	1 mg/L to 50000 mg/L
		Sulfate as SO ₄	IS 3025 (Part 24): 1986 (RA 2009) Gravimetric Method	1 mg/L to 1000 mg/L
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006	1 mg/L to 500000 mg/L
		Biological Oxygen Demand	IS 3025(Part 44): 1993 (RA 2009)	1 mg/L to 250000 mg/L

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