

Laboratory Sun Consultancy and Services, 16/C, Engineers' Colony, Budheswari, Bhubaneswar, Odisha

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5913

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Validity 30.06.2017 to 29.06.2019

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

I.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	Nitrogen Oxides	IS:5182 (Part-6)	6 µg/m ³ to 750 µg/m ³
		Particulate matter (PM _{2.5})	SCS/SOP/01	2 µg/m ³ to 200 µg/m ³
		Particulate matter (PM ₁₀)	IS:5182 (Part-23) Cyclonic Flow Technique	5 µg/m ³ to 1000 µg/m ³
		Particulate matter (PM ₁₀)	EN 12341 Low Volume Sampler	5 µg/m ³ to 500 µg/m ³
2.	Work Environment and Indoor Air Quality	Sulphur Dioxide	IS:5182 (Part-2)	4 µg/m ³ to 1000 µg/m ³
		Suspended Particulate Matter (SPM)	IS:5182 (Part - 4)	5 µg/m ³ to 800 µg/m ³
		PM ₁₀ (RSPM)	IS:5182(Part-23)	5 µg/m ³ to 1000 µg/m ³
		Particulate matter (PM ₁₀)	EN 12341 Low Volume Sampler	5 µg/m ³ to 500 µg/m ³
		PM _{2.5}	SCS/SOP/01	2 µg/m ³ to 200 µg/m ³
		NRPM	IS:5182(Part-23)	5 µg/m ³ to 800 µg/m ³
		Sound Pressure Level Leq (Ambient)	IS:9989	34 dB to 134 dB(A)
		Sound Pressure Level Leq (Source)	IS: 4758	34 dB to 134 dB(A)
		Ventilation	SCS/SOP/Ventilation/01	0.4 m/s to 45.0 m/s
3.	Stack Emission	Particulate Matter	IS:11255 (Part - 1)	10 mg/Nm ³ to 2000 mg/Nm ³
		Flow Rate	IS:11255(Part - 3)	05 LPM to 30 LPM
		Nitrogen Oxide	IS:11255(Part - 7)	2 mg/Nm ³ to 400 mg/Nm ³
		Sulfur Dioxide	IS:11255(Part - 2)	0.2 mg/Nm ³ to 200 mg/Nm ³
4.	Ambient Noise Levels (Excluding	Sound Pressure Level Leq (Ambient)	IS:9989: 1981	34 dB to 134 dB(A)

Ajay Kumar Sharma
Convenor

N. Venkateswaran
Program Director

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	Vibration)			
5.	Source Noise Levels (Excluding Vibration)	Sound Pressure Level Leq (Source)	IS: 4758	34 dB to 134 dB(A)
II.	WATER			
1.	Drinking Water	Alkalinity as CaCO ₃	IS: 3025 (Part - 23)	0.5 mg/L to 500 mg/L
		Calcium as Ca	IS: 3025 (Part - 40)	5 mg/L to 1000 mg/L
		Chloride as Cl	IS: 3025 (Part - 32)	1 mg/L to 5000 mg/L
		Total Dissolved Solids	IS: 3025 (Part - 16)	1 mg/L to 2000 mg/L
		Total Chromium as Cr	IS: 3025 (Part - 52)	0.05 mg/L to 20 mg/L
		Iron as Fe	IS: 3025 (PART- 53)	0.05 mg/L to 5 mg/L
		Magnesium as Mg	APHA 22 nd Edition -3500-Mg B	1 mg/L to 2000 mg/L
		pH at 25°C	IS: 3025 (Part - 11)	1 to 14
		Sulfate as SO ₄	IS: 3025 (Part - 24)	1 mg/L to 40 mg/L
		Total Hardness as CaCO ₃	IS: 3025 (Part - 21)	1 mg/L to 800 mg/L
		Turbidity	IS: 3025 (Part - 10)	1 NTU to 1000 NTU
2.	Surface Water/ Ground Water	Bio Chemical Oxygen Demand (BOD)	IS: 3025 (Part - 44)	01 mg/L to 100 mg/L
		Chemical Oxygen Demand (COD)	IS: 3025 (Part - 58)	01 mg/L to 1000 mg/L
		Chloride as Cl	IS: 3025 (Part - 32)	1 mg/L to 2000 mg/L
		Hexavalent Chromium as Cr ⁶⁺	IS: 3025 (Part - 52)	0.05 mg/L to 20 mg/L
		Total Chromium as Cr	IS: 3025 (Part - 52)	0.05 mg/L to 20 mg/L
		Oil and Grease	IS: 3025 (Part - 39)	4 mg/L to 100 mg/L
		pH at 25°C	IS: 3025 (Part - 11)	1 to 14
		Phosphate as PO ₄	IS: 3025 (Part - 31)	0.05 mg/L to 50 mg/L
		Sulfate as SO ₄	IS: 3025 (Part - 24)	1 mg/L to 40 mg/L
		Temperature	IS: 3025 (Part - 9)	30 °C to 70 °C
		Total Suspended Solid	IS: 3025 (Part - 17)	1 mg/L to 2000 mg/L
		Turbidity	IS: 3025 (Part - 10)	1 NTU to 1000 NTU

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		Conductivity at 25°C	APHA 22 nd Edition -2510-B Laboratory Method	1µS/cm to 1000 mS/cm
		Sodium as Na	IS: 3025 (Part - 45)	1 mg/L to 100mg/L
		Potassium as K	IS: 3025 (Part - 45)	1 mg/L to 100mg/L
		Total Dissolved Solid	IS: 3025 (Part - 16)	1.0 mg/L to 2000 mg/L
		Alkalinity as CaCO ₃	IS: 3025 (Part - 23)	1 mg/L to 500 mg/L
		Dissolved Oxygen	IS: 3025 (Part - 38)	0.1 mg/L to 9 mg/L
		Total Hardness as CaCO ₃	IS: 3025 (Part - 21)	1 mg/l to 800 mg/l
		Calcium as Ca	IS: 3025 (Part - 40)	1 mg/l to 800 mg/l
		Iron as Fe	IS: 3025 (Part - 53)	0.05 mg/L to 5mg/L
		Magnesium as Mg	APHA 22 nd Edition - 3500 mg-B	1 mg/L to 500 mg/L
III.	POLLUTION AND ENVIRONMENT			
1.	Waste Water (Effluent/ Sewage)	Bio Chemical Oxygen Demand (BOD)	IS: 3025 (Part - 44)	02 mg/L to 1000 mg/L
		Chemical Oxygen Demand (COD)	IS: 3025 (Part - 58)	04 mg/L to 8000 mg/L
		Chloride as Cl	IS: 3025 (Part - 32)	1 mg/L to 4000mg/L
		Hexavalent Chromium as Cr ⁶⁺	IS: 3025 (Part - 52)	0.05 mg/L to 20 mg/L
		Total Chromium as Cr	IS: 3025 (Part - 52)	0.05 mg/L to 20 mg/L
		Oil and Grease	IS: 3025 (Part - 39)	4 mg/L to 100 mg/L
		pH at 25°C	IS: 3025 (Part - 11)	1 to 14
		Phosphate as PO ₄	IS: 3025 (Part - 31)	0.05 mg/L to 50 mg/L
		Sulfate as SO ₄	IS: 3025 (Part - 24)	1 mg/L to 40mg/L
		Temperature	IS: 3025 (Part - 9)	30°C to 70°C
		Total Suspended Solid	IS: 3025 (Part - 17)	1 mg/L to 5000 mg/L
		Turbidity	IS: 3025 (Part - 10)	1 NTU to 1000 NTU
		Conductivity at 25°C	APHA 22 nd Edition - 2510-B Laboratory Method	1µS/cm to 1000 mS/cm
		Sodium as Na	IS: 3025 (Part - 45)	1 mg/L to 100 mg/L

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		Potassium as K	IS: 3025 (Part - 45)	1 mg/L to 100 mg/L
		Total Dissolved Solid	IS: 3025 (Part - 16)	1 mg/L to 5000 mg/L
		Alkalinity as CaCO ₃	IS: 3025 (Part - 23)	1 mg/L to 5000 mg/L
		Dissolved Oxygen	IS: 3025 (Part - 38)	0.1 mg/L to 10 mg/L
		Total Hardness as CaCO ₃	IS: 3025 (Part - 21)	1 mg/l to 800 mg/l
		Calcium as Ca	IS: 3025 (Part - 40)	1 mg/l to 500 mg/l
		Iron as Fe	IS: 3025 (Part - 53)	0.05 mg/L to 5 mg/L
		Magnesium as Mg	APHA 22 nd Edition- 3500 mg-B	1 mg/L to 500 mg/L

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