

Laboratory Gujarat Pollution Control Board, Regional Laboratory, Plot No. C-5/124,
G.I.D.C, Vapi, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5306

Page 1 of 9

Validity 17.03.2017 to 16.03.2019

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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BIOLOGICAL TESTING

I.	WATER			
1.	Ground Water/ Surface Water/ Drinking Water	Total Coliforms	APHA 22nd Edition 9221 B, IS 1622:1981 (RA 2003)	<1.8 to>1600 MPN/100 ml <2 to 1600 MPN/100 ml
		Faecal Coliforms	APHA 22nd Edition 9221 E IS 1622:1981 (RA 2003)	1.8 to>1600 MPN/100 ml <2 to 1600 MPN/100 ml
2.	Effluent / Waste Water/ Sewage	Total Coliforms	APHA 22nd Edition 9221 B, IS 1622:1981 (RA 2003)	<1.8 to>1600 MPN/100 ml <2 to 1600 MPN/100 ml
		Faecal Coliforms	APHA 22nd Edition 9221 E IS 1622:1981 (RA 2003)	<1.8 to>1600 MPN/100 ml <2 to 1600 MPN/100 ml

Bhumi Rajyaguru
Convenor

N. Venkateswaran
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Page 2 of 9

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CHEMICAL TESTING

I.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	SPM	IS: 5182 (Part - IV), 1999(Reaffirmed 2004)	20 µg/m ³ to 1000 µg/m ³
		RSPM (PM ₁₀)	IS: 5182 (Part - XXIII), 2006	20 µg/m ³ to 50 µg/m ³
		SO ₂	IS: 5182 (Part - 2), 2001	5 µg/m ³ to 100 µg/m ³
		NO ₂	IS: 5182 (Part – VI), 2006	10 µg/m ³ to 750 µg/m ³
		Chlorine	IS 5182 (Part XIX) 1982 R.1998	5 ug/m ³ to 100 ug/m ³
2.	Stack Emission	PM	IS: 11255 (Part – 1), 1985 (Reaffirmed 1999)	10 mg/nm ³ to 2000 mg/nm ³
		NO ₂	IS:11255(Part-7), 2005	5 mg/nm ³ to 200 mg/nm ³
		SO ₂	IS: 11255 (Part – 2), 1985(Reaffirmed 2003)	5 mg/nm ³ to 200 mg/nm ³
		Chlorine	IS 5182 (Part XIX) 1982 R.1998	5 ug/m ³ to 100 ug/m ³
		Ammonia	IS:11255(Part6),1999	5 mg/nm ³ to 500 mg/nm ³
3.	Noise Level Monitoring	Ambient Noise Levels (Excluding vibration (Leq))	Direct measurement from noise level meter Instrument	34 dB (A) to 134 dB (A)
		Source Noise Levels (Excluding vibration) Particular Source to be specified		34 dB (A) to 134 dB (A)
II.	WATER			
1.	Ground water/ Surface water	Colour	2120 B & Or 2120 C APHA Standard Methods 22 nd edi.	2 - to 99 Co-Pt units
		Temperature °C	IS: 3025 (Part – 9) – 1984(Reaffirmed 2002)	2 °C to 40 °C

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Page 3 of 9

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		Turbidity.	Nephelometric method. (2130 B APHA Standard Methods 22 nd edi.)	1 NTU to 1000 NTU
		pH Value	4500 H+ B APHA Standard Methods 22 nd edi.	2 to 12
		Conductivity	2510 B APHA Standard Methods 22 nd edi.	1.0 mS to 100 mS/m
		Total Solids	Gravimetric method. (2540 B APHA Standard Methods 22 nd edi.)	10 mg/L to 200000 mg/L
		Total Suspended Solids	Gravimetric method. (2540 D APHA Std. Methods 22 nd edi.)	2 mg/L to 200000 mg/L
		Total Dissolved Solids	Gravimetric method.(2540 C APHA Std. Methods 22 nd edi.)	10 mg/L to 200000 mg/L
		Volatile & Fixed residue	Gravimetric method. (2540 E APHA Standard Methods 22 nd edi.)	2 mg/L to 200000 mg/L
		Total Hardness	Titrimetric method. (2340 C APHA Standard Methods 22 nd edi.)	5 mg/L to 1000 mg/L
		Chloride	Argentometric method. (4500 Cl-B APHA Standard Methods 22 nd edi.)	5 mg/L to 50000 mg/L
		Dissolved O2	Winkler method – Azide modification. (4500-O – C APHA Standard Methods 22 nd edi.)	0.1 mg/L to 15 mg/L
		Calcium	Titrimetric method. (3500 – Ca B APHA Standard Methods 22 nd edi.)	5 mg/L to 1000 mg/L
		Magnesium	Titrimetric method. (3500 – Mg B APHA Standard Methods 22 nd edi.)	5 mg/L to 1000 mg/L

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Certificate Number TC-5306

Page 4 of 9

Validity 17.03.2017 to 16.03.2019

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		BOD ₃ at 27°C	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed 1999)	1 mg/L to 50000 mg/L
		Oil & Grease (mineral oil)	Liquid – Liquid Partition Gravimetric method. (5520 B APHA Standard Methods 22 nd edi.)	2 mg/L to 1000 mg/L
		Phenolic Compound	(Direct Photometric method) (5530 D APHA Standard Methods 22 nd edi.)	0.1 mg/L to 50 mg/L
		Sulphides	APHA (22 nd Edi.)4500-s ₂ -F –iodometric Method	0.4 mg/L to 50.0 mg/L
		COD	APHA (22 nd Edition)- 5220 B Open Reflux Method	5.0 mg/L to 50000 mg/L
		Hexavalent Chromium	APHA (22 nd Edition) –3500 – Cr B : Colorimetric method.	0.1 mg/L to 10.0 mg/L
		Sulphate	APHA(22 nd Edition) 4500 SO ₄ E Turbidimetric method	1 mg/L to 25000 mg/L
		Sodium Potassium	Flame Photometry method. (3500 – Na B & 3500-K B APHA Standard Methods 22 nd edi.)	1 mg/L to 100 mg/L 1 mg/L to 100 mg/L
		%Na	Calculation method.	1 % to 100 %
		SAR.	Calculation method.	1 to 500
		Cyanide	Titrimetric method. (4500 - CN— D APHA Std. Methods 22 nd edi.)	0. 5 mg/L to 10 mg/L
		Acidity.	Titration Method. (2310 B APHA Standard Methods 22 nd edi.)	1 mg/L to 1000 mg/L

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Page 5 of 9

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		Alkalinity.	Titration method. (2320 B APHA Standard Methods 22 nd edi.)	1 mg/L to 5000 mg/L
		Fluoride	SPADNS method (4500-F-D APHA standard Methods 22 nd Edi.)	0.10 mg/L to 40 mg/L
		Boron	Colorimetric Curcumin method. (4500-B B. APHA Standard Methods 22 nd edi.)	0.1 mg/L to 10.0 mg/L
		Total Kjeldahl Nitrogen.	Titrimetric method followed by preliminary distillation step. (4500-N _{org} – B APHA Standard Methods 22 nd edi.)	0.28 mg/L to 1400 mg/L
		Ammonical Nitrogen.	1).Titrimetric method 2).Nesslerization method. (4500 NH ₃ B & C APHA Standard Methods 22 nd edi.)	0.28 mg/L to 1400 mg/L
		Nitrite Nitrogen.	Spectrophotometric method. (4500-NO ₂ B APHA Standard Methods 22 nd edi.)	0.1 mg/L to 1.0 mg/L
		Phosphate	Stannous Chloride method.(4500 – P D APHA Standard Methods 22 nd edi.)	0.1 mg/L to 6 mg/L
		Iron	(3500-Fe B APHA Standard Methods 22 nd edi.)	0.1 mg/L to 10 mg/L
		Chromium	(3500-Cr- B APHA Standard Methods 22 nd edi.)	0.1 mg/L to 1.0 mg/L

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Page 6 of 9

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III.	POLLUTION AND ENVIRONMENT			
1.	Waste Water (Effluents/Sewage)	Colour	2120 B or 2120 C APHA Standard Methods 22 nd edi.	2 - to 99 Co-Pt units
		Temperature °C	IS: 3025 (Part – 9) – 1984(Reaffirmed 2002)	2 °C to 40 °C
		Turbidity.	Nephelometric method. (2130 B APHA Standard Methods 22 nd edi.)	1 NTU to 1000 NTU
		pH Value	4500 H+ B APHA Standard Methods 22 nd edi.	2 to 12
		Conductivity	2510 B APHA Standard Methods 22 nd edi.	1.0 mS to 100 S/m
		Total Solids	Gravimetric method. (2540 B APHA Standard Methods 22 nd edi.)	10 mg/L to 200000 mg/L
		Total Suspended Solids	Gravimetric method. (2540 D APHA Standard Methods 22 nd edi.)	2 mg/L to 200000 mg/L
		Total Dissolved Solids	Gravimetric method. (2540 C APHA Standard Methods 22 nd edi.)or	10 mg/L to 200000 mg/L
		Volatile & Fixed residue	Gravimetric method. (2540 E APHA Standard Methods 22 nd edi.)	2 mg/L to 200000 mg/L
		Total Hardness	Titrimetric method. 2340 C APHA Std Methods 22 nd edi.)	5 mg/L to 1000 mg/L
		Chloride	Argentometric method. (4500 Cl— B APHA Standard Methods 22 nd edi.	5 mg/L to 50000 mg/L
		Dissolved O2	Winkler method – Azide modification. (4500-O – C APHA Standard Methods 22 nd edi.)	0.1 mg/L to 15 mg/L

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Certificate Number TC-5306

Page 7 of 9

Validity 17.03.2017 to 16.03.2019

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		Calcium	Titrimetric method. (3500 – Ca B APHA Std.Methods 22 nd edi.)	5 mg/L to 1000 mg/L
		Magnesium	Titrimetric method. (3500 – Mg B APHA Std. Methods 22 nd edi.)	5 mg/L to 1000 mg/L
		BOD ₃ at 27°C	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed 1999)	05 mg/L to 50000 mg/L
		Oil & Grease (mineral oil)	Liquid – Liquid Partition Gravimetric method. (5520 B APHA Std. Methods 22 nd edi.)	01 mg/L to 1000 mg/L
		Phenolic Compound	(Direct Photometric method) (5530 D APHA Standard Methods 22 nd edi.)	0.01 mg/L to 50 mg/L
		Sulphides	APHA (22 nd Edi.)4500-s ₂ -F –iodometric Method	0.4 mg/L to 50.0 mg/L
		COD	APHA (22 nd Edition)- 5220 B Open Reflux Method	5.0 mg/L to 50000 mg/L
		Hexavalent Chromium	APHA (22 nd Edition) –3500 – Cr B: Colorimetric method	0.1 mg/L to 10.0 mg/L
		Sulphate	APHA(22 nd Edition) 4500 SO ₄ E Turbidimetric method	1 mg/L to 25000 mg/L
		Sodium Potassium	Flame Photometry method. (3500 – Na B & 3500-K B APHA Standard Methods 22 nd edi.)	0.01 mg/L to 100 mg/L 0.01 mg/L to 100 mg/L
		%Na	Calculation method	0.01 % to 100 %
		SAR	Calculation method	0.01 to 500

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Page 8 of 9

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		Cyanide	Titrimetric method. (4500 - CN— D APHA Standard Methods 22 nd edi.)	0.5 mg/L to 10 mg/L
		Acidity	Titration Method. (2310 B APHA Standard Methods 22 nd edi.)	1 mg/L to 1000 mg/L
		Alkalinity	Titration method. (2320 B APHA Standard Methods 22 nd edi.)	1 mg/L to 5000 mg/L
		Fluoride	SPADNS method (4500-F-D APHA standard Methods 22 nd Edi.)	0.10 mg/L to 40 mg/L
		Boron	Colorimetric Curcumin method. (4500-B B. APHA Standard Methods 22 nd edi.)	0.1 mg/L to 10.0 mg/L
		Total Kjeldahl Nitrogen.	Titrimetric method followed by preliminary distillation step. (4500-N _{org} – B APHA Standard Methods 22 nd edi.)	0.28 mg/L to 1400 mg/L
		Ammonical Nitrogen.	1). Titrimetric method 2). Nesslerization method. (4500 NH ₃ B & C APHA Standard Methods 22 nd edi.)	0.28 mg/L to 1400 mg/L
		Nitrite Nitrogen.	Spectrophotometric method. (4500-NO ₂ B APHA Standard Methods 22 nd edi.)	0.1 mg/L to 1.0 mg/L
		Phosphate	Stannous Chloride method. (4500 – P D APHA Standard Methods 22 nd edi.) or on Ion Chromatograph	0. 1 mg/L to 6 mg/L

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Page 9 of 9

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		Iron	(3500-Fe B APHA Standard Methods 22 nd edi.)	0.1 mg/L to 10 mg/L
		Chromium	(3500-Cr- B APHA Standard Methods 22 nd edi.)	0.1 mg/L to 1.0 mg/L
2.	Solid Waste	TIS Total In Solid	SOP/Haz-01	0.1 g/kg to 1000 g/kg
		TVS Total volume Solid	SOP/Haz-02	0.1 g/kg to 1000 g/kg
		COD	SOP/Haz-03	0.1 g/kg to 1000 g/kg
		Phenolic Compound	SOP/Haz-04	0.05 g/kg to 100 g/kg

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