

Laboratory **JV Analytical Services, Samay Building, 40/A, Bhau Patil Road, Bopodi, Pune, Maharashtra**

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

Certificate Number **TC-7323 (in lieu of T-3955)**

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Validity **19.05.2018 to 18.05.2020**

Last Amended on **28.05.2018**

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.	WATER			
1.	Water (Drinking Water/Borewell Water/ Swimming Pool Water	Total Hardness (As CaCO ₃)	APHA : 2340 C, EDTA Titrimetric Method, 23 rd Edition, 2017 IS 3025 (Part 21): 2009 (RA 2014)	2 mg/l to 1000 mg/l
		Calcium as Ca	APHA :3500-Ca B .EDTA Titrimetric Method, 23 rd Edition, 2017 IS 3025 (Part 40): 1991 (RA 2017)	2 mg/l to 200 mg/l
		Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23): 1986 (RA 2014)	2 mg/l to 500 mg/l
		Total Phosphorus	APHA 4500PD Stannous Chloride Method, 23 rd Edition 2017	0.1 mg/l to 100 mg/l
		Calcium Hardness	APHA :3500-Ca B .EDTA Tetrimetric Method 23 rd Edition, 2017 IS 3025 Part 40, 2017	2 mg/l to 500 mg/l
		Magnesium Hardness	APHA :3500-Mg B Calculation Method, 23 rd Edition, 2017 IS 3025 (Part 46): 1994 (RA 2014)	2 mg/l to 200 mg/l
		Magnesium	APHA :3500-Mg B Calculation Method, 23 rd Edition, 2017 IS 3025 (Part 46): 2017	2 mg/l to 200 mg/l

**Battal Singh
Convenor**

**N. Venkateswaran
Program Director**

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Waste Water (Sewage Water, Effluent Water)	Total Dissolved Solids	APHA 2540C, 23 rd Edition, 2017 IS 3025 (Part 16): 1984 (RA 2017)	1 mg/l to 2000 mg/l
		Total Solids	APHA 2540B, 23 rd Edition, 2017/IS 3025 (Part 15): 1984 (RA 2014)	1 mg/l to 2000 mg/l
		Electrical conductivity	Conductivity 2510, APHA-23 rd edition , 2017 IS 3025(part 14):1984RA2013	2 micro S/cm to 1000 micro S/cm
		Total Suspended Solids	APHA 2540D, 23 rd Edition, 2017 IS 3025 (Part 17): 1984 (RA 2017)	1 mg/l to 200 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58):2006 RA 2017	4 mg/l to 4000 mg/l
		Available potassium	Flame AAS, APHA 23 rd edition,2017,3500-K B	1 mg/l to 99 mg/l
		pH	APHA 23 rd Edition, 2017, 4500 H+, IS 3025(part 11):1984 RA2012	2 to 14
		Sulphate	APHA 23 rd Edition, 2017 4500-SO4 E IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 500 mg/l
		Chloride	APHA 23 rd Edition, 2017, 4500 cl-B IS 3025 (Part 32) (RA 2014)	2 mg/l to 500 mg/l
2.	Waste Water	Total Hardness (As CaCO ₃)	APHA 2340 C, EDTA Titrimetric Method, 23 rd Edition, 2017/IS 3025 (Part 21): 2009 (RA 2014)	5 mg/l to 1000 mg/l

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		Calcium as Ca	APHA 3500-Ca B .EDTA Tetrimetric Method 23 rd Edition, 2017/IS 3025 (Part 40): 1991 (RA 2017)	5 mg/l to 200 mg/l
		Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23): 1986 (RA 2014)	5 mg/l to 500 mg/l
		Total Phosphorus	APHA 4500PD Stannous Chloride Method, 23 rd Edition 2017	0.1 mg/l to 100 mg/l
		Calcium Hardness	APHA 3500-Ca B .EDTA Tetrimetric Method 23 rd Edition, 2017 IS 3025 Part 40, 2017	5 mg/l to 500 mg/l
		Magnesium Hardness	APHA 3500-Mg B Calculation Method, 23 rd Edition, 2017 IS 3025 (Part 46): 1994 (RA 2014)	5 mg/l to 200 mg/l
		Magnesium	APHA 3500-Mg B Calculation Method, 23 rd Edition, 2017 IS 3025 (Part 46): 2017	5 mg/l to 200 mg/l
		Total Dissolved Solids	APHA 2540C, 23 rd Edition, 2017 IS 3025 (Part 16): 1984 (RA 2017)	5 mg/l to 5000 mg/l
		Total Solids	APHA 2540B, 23 rd Edition, 2017 IS 3025 (Part 15): 1984 (RA 2014)	5 mg/l to 5000 mg/l
		Electrical conductivity	Conductivity 2510, APHA-23 rd edition , 2017 IS 3025(part 14):1984 RA2006	10 micro S/cm to 20000 micro S/cm

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		Total Suspended Solids	APHA 2540D, 23 rd Edition, 2017 IS 3025 (Part 17): 1984 (RA 2017)	5 mg/l to 1000 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58):2006	4 mg/l to 5000 mg/l
		Available potassium	Flame AAS, APHA 23 rd edition,2017,3500-K B	1 mg/l to 99 mg/l
		pH	APHA 23 rd Edition, 2017, 4500 H+, IS 3025 (Part 11): 1984 (RA 2006)	2 to 14
		Sulphate	APHA 23 rd Edition, 2017 4500-SO4 E	5 mg/l to 2000 mg/l
		Chloride	APHA 23 rd Edition, 2017, 4500 Cl-B IS 3025 Part 32 RA 2014	5 mg/l to 1000 mg/l

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