

Laboratory	Sai Laboratories Pvt. Ltd., Flat No. 210, Challa Estate, Erragadda, Hyderabad, Telangana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	10.09.2014
Certificate Number	T-2107	Valid Until	09.09.2016
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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.	WATER			
1.	Waste Water	pH	APHA 22nd Edition, 2012; 4500 H ⁺ B	1- 14
		Color	APHA 22nd Edition, 2012; 2120 C	1 - 500 CU Units
		Temperature	APHA 22nd Edition, 2012; 2550 –B	Ambient -100°C
		Conductivity	APHA 22nd Edition, 2012; 2510 B	0.01–1000µS/Cm 1 mS/Cm-100mS/Cm
		Acidity as CaCO ₃	APHA 22nd Edition, 2012; 2310 B	5 – 400 mg/l 400 -10000 mg/l
		Alkalinity as CaCO ₃	APHA 22nd Edition, 2012; 2320 B	1 – 400 mg/l 400-3000 mg/l
		Total Solids	APHA 22nd Edition, 2012; 2540 B	5- 100 mg/l 100 - 5000 mg/l
		Total Dissolved Solids	APHA 22nd Edition, 2012; 2540 C	5- 100 mg/l 100 - 5000 mg/l
		Total Suspended Solids	APHA 22nd Edition, 2012; 2540 D	5- 100 mg/l 100 - 1000 mg/l
		Fixed Solids	APHA 22nd Edition, 2012; 2540 E	5- 100 mg/l 100 - 5000 mg/l

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		Volatile Solids	APHA 22nd Edition, 2012; 2540 E	5- 100 mg/l 100 -1000 mg/l
		Chlorides as Cl ⁻	APHA 22nd Edition, 2012; 4500 Cl ⁻ B	1 – 1500 mg/l
		Sulphates as SO ₄ ⁻²	APHA 22nd Edition, 2012; 4500 SO ₄ ⁻² D	5 –1000 mg/l
		Sulphide as S ⁻²	APHA 22nd Edition, 2012; 4500 S ⁻² F	5 –1000 mg/l
		Sulphite as SO ₃ ⁻²	APHA 22nd Edition, 2012; 4500 SO ₃ ⁻² , B	5 –1000 mg/l
		Nitrate Nitrogen as N	IS: 3025 (Part 34) – 1998; (3.1b; Page.10, 11)	1 – 1000 mg/l
		Nitrite Nitrogen as N	APHA 22nd Edition, 2012; 4500 NO ₂ – B	1 – 1000 mg/l
		Nitrogen (Ammonia) as N	APHA 22nd Edition, 2012; 4500 NH ₃ B, C	0.1 – 100 mg/l
		Nitrogen (Organic) as N	APHA 22nd Edition, 2012; 4500 N (org) B	1 – 1000 mg/l
		Fluorides as F ⁻	APHA 22nd Edition, 2012; 4500 F ⁻ D	0.1- 1000 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
		Residual Chlorine as Cl	APHA 22nd Edition, 2012; 4500 Cl B	0.1 – 10 mg/l 10 – 100 mg/l
		Total Cyanide as CN ⁻	APHA 22nd Edition, 2012; 4500 CN ⁻ C, E	0.05 - 50 mg/l 50-10000 mg/l
		Total Hardness as CaCO ₃	APHA 22nd Edition, 2012; 2340 C	1 – 400 mg/l 400 -5000 mg/l
		Phosphorus as P	APHA 22nd Edition, 2012; 4500 P C	0.5 – 10 mg/l 10 -100 mg/l
		Dissolved Oxygen	APHA 22nd Edition, 2012; 4500 O C	1 – 12 mg/l
		Oil & Grease	APHA 22nd Edition, 2012; 5520 B	5 – 50 mg/l 50 -1000 mg/l
		Chemical Oxygen Demand	APHA 22nd Edition, 2012; 5220 B	5 – 1000 mg/l 1000-30000 mg/l
		Biological Oxygen Demand (5 Days at 20°C)	APHA 22nd Edition, 2012; 5210 B,	4 – 1000 mg/l 1000-20000 mg/l
		Phenolic Compounds as Phenols	APHA 22nd Edition, 2012; 5530 D	0.01- 100 mg/l 100-1000 mg/l
		Calcium as Ca	APHA 22nd Edition, 2012; 3500 Ca B	1 – 100 mg/l 100 -3000 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
		Magnesium as Mg	APHA 22nd Edition, 2012; 3500-Mg B	1– 100 mg/l 100-2000 mg/l
		Sodium as Na	APHA 22nd Edition, 2012; 3500 Na B	5 – 100 mg/l 100-1000 mg/l
		Potassium as K	APHA 22nd Edition, 2012; 3500 K B	5 – 100 mg/l 100-1000 mg/l
		Boron as B	APHA 22nd Edition, 2012; 4500-B B	0.5 – 20 mg/l 20 – 100 mg/l
		Total Chromium as Cr	APHA 22nd Edition, 2012; 3111 B	0.5 – 20 mg/l 20 – 100 mg/l
		Hexavalent Chromium as Cr ⁺⁶	APHA 22nd Edition, 2012; 3500 Cr B	0.05 – 10 mg/l 10 – 100 mg/l
		Iron as Fe	APHA 22nd Edition, 2012; 3500 Fe B	0.1 – 50 mg/l 50 – 100 mg/l
		Lead as Pb	APHA 22nd Edition, 2012; 3111 B	0.5 – 10 mg/l 10 – 100 mg/l
		Manganese as Mn	APHA 22nd Edition, 2012; 3111 B	0.5 – 10 mg/l 10 – 100 mg/l
		Nickel as Ni	APHA 22nd Edition, 2012; 3111 B	0.5 – 20 mg/l 20 – 100 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
		Silica as SiO ₂	APHA 22nd Edition, 2012; 4500 SiO ₂ C	0.5 – 10 mg/l 10 – 100 mg/l
		Zinc as Zn	APHA 22nd Edition, 2012; 3111 B	0.1 – 10 mg/l 10 – 100 mg/l
		Copper as Cu	APHA 22nd Edition, 2012; 3111 B	0.03-10 mg/l 10 -100 mg/l
		Aluminium	APHA 22nd Edition, 2012; 3500 Al B	0.03 –10 mg/l 10 –100 mg/l
		Turbidity	APHA 22nd Edition, 2012: 2130 B	1 NTU – 100 NTU
2.	Domestic & Bore Water	pH	APHA 22nd Edition, 2012; 4500 H ⁺ B	1 - 14 units
		Color	APHA 22nd Edition, 2012; 2120 C	1- 500 Hazen Units
		Temperature	APHA 22nd Edition, 2012; 2550 –B	Ambient -100°C
		Conductivity	APHA 22nd Edition, 2012; 2510 B	0.01–1000µS/Cm 1 mS/Cm-100mS/Cm
		Acidity as CaCO ₃	APHA 22nd Edition, 2012; 2310 B	2 – 1000 mg/l
		Alkalinity as CaCO ₃	APHA 22nd Edition, 2012; 2320 B	2 – 1000 mg/l
		Turbidity	APHA 22nd Edition, 2012: 2130 B	1 – 100 NTU
		Total Dissolved Solids	APHA 22nd Edition, 2012; 2540 C	10 – 10000 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
		Chlorides as Cl ⁻	APHA 22nd Edition, 2012; 4500 Cl ⁻ B	5 – 5000 mg/l
		Sulphates as SO ₄ ⁻²	APHA 22nd Edition, 2012; 4500 SO ₄ ⁻² D	5 – 5000 mg/l
		Nitrate as N	IS: 3025 (Part 34) – 1998; (3.1b; Page.10, 11) APHA 22nd Edition, 2012; 4500 NO ₃ ⁻ B	0.1-100 mg/l
		Nitrite Nitrogen as N	APHA 22nd Edition, 2012; 4500 NO ₂ – B	1 – 500 mg/l
		Fluorides as F ⁻	APHA 22nd Edition, 2012; 4500 F ⁻ D	1- 50 mg/l
		Total Cyanides as CN ⁻	APHA 22nd Edition, 2012; 4500 CN ⁻ C, E	0.2-10 mg/l
		Total Hardness as CaCO ₃	APHA 22nd Edition, 2012; 2340 C	5 – 10000 mg/l
		Phosphorus as P	APHA 22nd Edition, 2012; 4500 P C	0.5 – 100 mg/l
		Dissolved Oxygen	APHA 22nd Edition, 2012; 4500 O C	1 – 12 mg/l
		Oil & Grease	APHA 22nd Edition, 2012; 5520 B	5 – 100 mg/l
		Phenolic Compounds as Phenols	APHA 22nd Edition, 2012; 5530 D	0.1- 100 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
		Calcium as Ca	APHA 22nd Edition, 2012; 3500 Ca B	5 – 1000 mg/l
		Magnesium as Mg	APHA 22nd Edition, 2012; 3500-Mg B	5 – 1000 mg/l
		Sodium as Na	APHA 22nd Edition, 2012; 3500 Na B	1 – 1000 mg/l
		Potassium as K	APHA 22nd Edition, 2012; 3500 K B	1 – 1000 mg/l
		Boron as B	APHA 22nd Edition, 2012; 4500-B B	0.5 – 20 mg/l 20 – 100 mg/l
		Total Chromium as Cr	APHA 22nd Edition, 2012; 3111 B	0.5- 100 mg/l
		Hexavalent Chromium as Cr ⁺⁶	APHA 22nd Edition, 2012; 3500 Cr B	0.1- 100 mg/l
		Iron as Fe	APHA 22nd Edition, 2012; 3500 Fe B	0.1 – 100 mg/l
		Lead as Pb	APHA 22nd Edition, 2012; 3111 B	0.1 – 50 mg/l
		Manganese as Mn	APHA 22nd Edition, 2012; 3111 B	0.5 – 100 mg/l
		Nickel as Ni	APHA 22nd Edition, 2012; 3111 B	0.5 – 100 mg/l
		Silica as SiO ₂	APHA 22nd Edition, 2012; 4500 SiO ₂ C	0.5-100 mg/l

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		Zinc as Zn	APHA 22nd Edition, 2012; 3111 B	0.1 – 100 mg/l
		Copper as Cu	APHA 22nd Edition, 2012; 3111 B	0.5-100 mg/l
		Aluminum	APHA 22nd Edition, 2012; 3500 Al B	0.03-10 mg/l 10 - 100 mg/l
		Residual free Chlorine	APHA 22nd Edition, 2012: 4500-Cl B.	0.2 – 100 mg/l
II.	AIR, GASES & ATMOSPHERE			
1.	Ambient Air Monitoring	Sulphur Dioxide	IS :5182 (Part 2) : 2001	5-1050 µg/m ³
		Oxides of Nitrogen	IS :5182 (Part 6) : 2006	6-750 µg/m ³
		Respirable Suspended Particulate Matter (PM10)	IS :5182 (Part 23) : 2006	5-1000 µg/m ³
		PM 2.5	USEPA – Quality assurance guidance document 2.125/PM 2.5 quality assurance hand book Vol II, part II	25-200 µg/m ³
		Temperature	SL/HYD/SOP/44 Issue No. 01, Issue Date-11/10/2013	1- 70°C
		Relative Humidity	SL/HYD/SOP/44 Issue No. 01, Issue Date-11/10/2013	10 - 100%

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III.	SOIL	pH	IS 2720:1987 (Part – 26)	1-14
		Organic Carbon	IS 2720:1972 (Part – 22)	1- 20 %
		Copper as Cu	USEPA 1998, SW-846; 7210	1 -1000 mg/kg
		Nickel as Ni	USEPA 1998, SW-846; 7520	5 - 1000 mg/kg
		Chromium as Cr	USEPA 1998, SW-846; 7190	1 - 1000 mg/kg
		Zinc as Zn	USEPA 1998, SW-846; 7950	1 - 1000 mg/kg
		Lead as Pb	USEPA 1998, SW-846; 7420	2 – 1000 mg/kg

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