

Laboratory	Savant Envitech Private Limited, 1st Floor, Plot No. 203, H. No. 5-36/203, Prashanthi Nagar, Kukatpally IDA, Hyderabad, Telangana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	19.10.2014
Certificate Number	T-3144	Valid Until	18.10.2016
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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.	POLLUTION & ENVIRONMENT			
1.	Liquid Effluents	pH	APHA 22 nd Edition, 2012; 4500 H ⁺ B	1-14
		Color	APHA 22 nd Edition, 2012; 2120 C	1-100 CU
		Temperature	APHA 22 nd Edition, 2005; 2550 –A, B	Ambient -100 °C
		Conductivity	APHA22 nd Edition, 2012; 2510 B	2-10000 µMho/cm
		Acidity as CaCO ₃	APHA 22 nd Edition, 2012; 2310 B	10 - 5000 mg/l
		Alkalinity as CaCO ₃	APHA 22 nd Edition, 2012; 2320 B	10 -5000 mg/l
		Total Solids	APHA 22 nd Edition, 2012; 2540 B	10- 5,00,000 mg/l
		Total Dissolved Solids	APHA 22 nd Edition, 2012; 2540 C	10- 5,00,000 mg/l
		Total Suspended Solids	APHA 22 nd Edition, 2012; 2540 D	10- 5,000 mg/l
		Fixed Solids	APHA 22 nd Edition, 2012; 2540 E	10- 100000 mg/l
		Volatile Solids	APHA 22 nd Edition, 2012; 2540 E	10- 100000 mg/l
		Chlorides as Cl ⁻	APHA 22 nd Edition, 2012; 4500 Cl ⁻ B	10 - 1,00,000 mg/l
		Sulphates as SO ₄ ⁻²	APHA 22 nd Edition, 2012; 4500 SO ₄ ⁻² E	1 - 40 mg/l >40 mg/l
		Sulphide as S ⁻²	APHA 22 nd Edition, 2012; 4500 S ² F	10 -10000 mg/l

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		Sulphite as SO ₃ ⁻²	APHA 22 nd Edition, 2012; 4500 SO ₃ ⁻² B	10 -10000 mg/l
		Nitrate Nitrogen as N	IS: 3025 (Part 34) – 1998; (3.1b; Page.10, 11)- Chromotropic Acid Method	0.1 - 10000 mg/l
		Nitrite Nitrogen as N	APHA 22 nd Edition, 2012; 4500 NO ₂ – B(Colorimetric Method)	1 - 1000 mg/l
		Nitrogen (Ammonia) as N	APHA 22 nd Edition, 2012; 4500 NH ₃ B, C	10 - 50,000 mg/l
		Nitrogen (Organic) as N	APHA 22 nd Edition, 2012; 4500 N (org) B	10 - 10,000 mg/l
		Fluorides as F ⁻	APHA 22 nd Edition, 2012; 4500 F ⁻ D	0.1- 100 mg/l
		Residual Chlorine as Cl	APHA 22 nd Edition, 2012; 4500 Cl B	1 - 100 mg/l
		Total Hardness as CaCO ₃	APHA 22 nd Edition, 2012; 2340 C	10- 500 mg/l
		Phosphorus as P	APHA 22 nd Edition, 2012; 4500 P C	1 - 1000 mg/l
		Dissolved Oxygen	APHA 22 nd Edition, 2012; 4500 O C	1 - 12 mg/l
		Oil & Grease	APHA 22 nd Edition, 2012; 5520 B	5 - 5,000 mg/l
		Chemical Oxygen Demand	APHA 22 nd Edition, 2012; 5220 B	2-50,000 mg/l

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		Biological Oxygen Demand (5 Days at 20°C) 3 DAYS AT 27°C	APHA 22 nd Edition, 2012; 5210 B, 4500-O. C IS : 3025(Part-44) 1999, Reaffirmed 2003 and 1	2 - 2,00,000 mg/l
		Phenolic Compounds as Phenols	APHA 22 nd Edition, 2012; 5530 D (Direct Photometric Method)	0.1- 100 mg/l
		Turbidity	APHA 22 nd Edition, 2012: 2130 B	0.05 - 100 NTU
		Cyanide	APHA 22 nd Edition, 2012; 4500 CN ⁻ C, E	0.01-1000 mg/l
		Calcium as Ca	APHA 22 nd Edition, 2012; 3500 Ca B	10- 3000 mg/l
		Sodium as Na	APHA 22 nd Edition, 2012; 3500 Na B	5-5,000 mg/l
		Potassium as K	APHA 22 nd Edition, 2012; 3500 K B	5-5,000 mg/l
		Arsenic as As	APHA 22 nd Edition, 2012; 3500 As B	0.01 - 100 mg/l
		Boron as B	APHA 22 nd Edition, 2012; 4500-B B (Curcumin Method)	1 – 500 mg/l
		Cadmium Cd	APHA 22 nd Edition, 2012; 3111 B	0.01- 1000 mg/l
		Total Chromium as Cr	APHA 22 nd Edition, 2012; 3111 B	0.05- 1000 mg/l
		Hexavalent Chromium as Cr ⁺⁶	APHA 22 nd Edition, 2012; 3500 Cr B	0.05 – 1000 mg/l

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	Iron as Fe		APHA 22 nd Edition, 2012; 3500 Fe B	0.1 – 1000 mg/l
	Lead as Pb		APHA 22 nd Edition, 2012; 3111 B	0.05- 1000 mg/l
	Manganese as Mn		APHA 22 nd Edition, 2012; 3500 Mn B	0.05- 1000 mg/l
	Nickel as Ni		APHA 22 nd Edition, 2012; 3111 B	0.5-1000 mg/l
	Silica as SiO ₂		APHA 22 nd Edition, 2012; 4500 SiO ₂ C	0.1 – 1000 mg/l
	Zinc as Zn		APHA 22 nd Edition, 2012; 3111 B	0.5 – 1000 mg/l
	Copper as Cu		APHA 22 nd Edition, 2012; 3111 B	0.01-1000 mg/l
	Mercury		SEPL/SOP/W-WW/Lab-275, Issue No:01, Issue Date:01-08-2013; Method based on Instrument Manual.	0.001 -100 mg/l
	Vanadium		APHA 22 nd Edition, 2012; 3500 V B	0.01-1000 mg/l
	Aluminium		APHA 22 nd Edition, 2012; 3500 Al B	0.03-1000 mg/l
	Selenium		APHA 22 nd Edition, 2012; AAS 3111D	0.001-1000 µg/l
	Cobalt		APHA 22 nd Edition, 2012; AAS 3111B	0.5 -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
II. WATER				
1.	Surface Water/Bore Water	pH	APHA 22 nd Edition, 2012; 4500 H ⁺ B	1-14
		Color	APHA 22 nd Edition, 2012; 2120 B	1-100 CU
		Temperature	APHA 22 nd Edition, 2012; 2550 –A, B	Ambient -100 °C
		Conductivity	APHA 22 nd Edition, 2012; 2510 B	2-10000 µMho/cm
		Acidity as CaCO ₃	APHA 22 nd t Edition, 2012; 2310 B	10 - 1000 mg/l
		Alkalinity as CaCO ₃	APHA 22 nd t Edition, 2012; 2320 B	10 - 1000 mg/l
		Total Dissolved Solids	APHA 22 nd Edition, 2012; 2540 C	10- 10,000 mg/l
		Chlorides as Cl ⁻	APHA 22 nd Edition, 2012; 4500 Cl ⁻ B	10 - 10,000 mg/l
		Sulphates as SO ₄ ⁻²	APHA 22 nd Edition, 2012; 4500 SO ₄ ⁻² E	1 - 40 mg/l >40 mg/l
		Nitrate Nitrogen as N	APHA 22 nd Edition, 2012; 4500 NO ₃ ⁻ B	0.1 - 600 mg/l
		Nitrite Nitrogen as N	APHA 22 nd Edition, 2012; 4500 NO ₂ – B (Colorimetric Method)	1 - 500 mg/l
		Fluorides as F ⁻	APHA 22 nd Edition, 2012; 4500 F D	0.1- 100 mg/l

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		Cyanide	APHA 22 nd Edition, 2012; 4500 CN ⁻ C, E	0.01-100 mg/l
		Total Hardness as CaCO ₃	APHA 22 nd Edition, 2012; 2340 C	10 - 3000 mg/l
		Phosphorus as P	APHA 22 nd Edition, 2012; 4500 P C	0.1 - 600 mg/l
		Oil & Grease	APHA 22 nd Edition, 2012; 5520 B	1 - 600 mg/l
		Phenolic Compounds as Phenols	APHA 22 nd Edition, 2012; 5530 D (Direct Photometric Method)	0.001- 400 mg/l
		Calcium as Ca	APHA 22 nd Edition, 2012; 3500 Ca B	10 - 1000 mg/l
		Sodium as Na	APHA 22 nd Edition, 2012; 3500 Na B	5-1000 mg/l
		Potassium as K	APHA 22 nd Edition, 2012; 3500 K B	5-1000 mg/l
		Turbidity	APHA 22 nd Edition, 2012; 2130 B	0.05- 100 NTU
		Total Suspended Solids	APHA 22 nd Edition, 2012; 2540 D	10- 1000 mg/l
		Chemical Oxygen Demand	APHA 22 nd Edition, 2012; 5220 B	2 -1000 mg/l
		Biological Oxygen Demand (5 Days at 20oC) 3 DAYS AT 27OC	APHA 22 nd Edition, 2012; 5210 B, 4500-O. C IS : 3025(Part-44) 1999, Reaffirmed 2003 and 1	2 - 1000 mg/l

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		Arsenic as As	APHA 22nd Edition, 2012; 3500 As B	0.01 – 50 mg/l
		Boron as B	APHA 22nd t Edition, 2012; 4500-B B (Curcumin Method)	0.5 - 100 mg/l
		Cadmium Cd	APHA 22nd Edition, 2012; 3111 B	0.001- 100 mg/l
		Total Chromium as Cr	APHA 22nd Edition, 2012; 3111 B	0.05- 100 mg/l
		Hexavalent Chromium as Cr+6	APHA 22nd Edition, 2012; 3500 Cr B	0.05 - 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	0.01- 100 mg/l
		Manganese as Mn	APHA 22nd Edition, 2012; 3500 Mn B	0.05- 100 mg/l
		Nickel as Ni	APHA 22nd Edition, 2012; 3111 B	0.02-100 mg/l
		Silica as SiO2	APHA 22nd Edition, 2012; 4500 SiO2 C	0.1 – 100 mg/l
		Zinc as Zn	APHA 22nd Edition, 2012; 3111 B	0.5 – 100 mg/l
		Copper as Cu	APHA 22nd Edition, 2012; 3111 B	0.01-100 mg/l
		Mercury	SEPL/SOP/W-WW/Lab-275, Issue No: 01,Issue Date:01-08-2013; Method based on Instrument Manual	0.001 -50 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
		Vanadium	APHA 22nd Edition, 2012; 3500 V B	0.01-50 mg/l
		Aluminium	APHA 22nd Edition, 2012; 3500 Al B	0.03-50 mg/l
		Selenium	APHA 22nd Edition, 2012; AAS 3111D	0.001-50 µg/l
		Cobalt	APHA 22nd Edition, 2012; AAS 3111B	0.5 - 50 mg/l
III. AIR, GASES & ATMOSPHERE				
1.	Ambient Air	Sulphur Dioxide(SO ₂)	IS 5182 (Part 2) : 2001, Reaffirmed 2012 West & Geake Method	4-1050 µg/m ³
		Nitrogen Dioxide (NO _x)	IS 5182 (Part 6) : 2006 Jacob & Hochheiser Method.	9-740 µg/m ³
		Particulate Matter (Size less than 10µm)or PM ₁₀	IS 5182 (Part 23):2006 Reaffirmed 2012 Gravimetric Method (Cyclonic Flow Technique)	5-1000 µg/m ³
		Particulate Matter (Size less than 2.5µm)or PM _{2.5}	LAB SOP No:SEPL/SOP/AAQ/LAB- 235, Issue No:01,Issue Date:01-08- 2013; Method based on CPCB Manual (NAAQMS/36/2012- 13)Gravimetric Method (Cyclonic Flow Technique)	5 -1000 µg/m ³

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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
		Ozone (O ₃)	IS 5182 (Part 9) :1974, Reaffirmed 2009 Colorimetric Method	0.01-500 µg/m ³
		Lead (Pb)	IS 5182 (Part 22): 2004 Reaffirmed 2009 AAS Method	0.5-100 µg/m ³
		Ammonia	LAB SOP No:SEPL/SOP/AAQ/LAB- 240, Issue No:01,Issue Date:01-08- 2013; Based on Method No: "401" Methods of Air Sampling and analysis By JAMES P.LODGE, JR. (Indophenol Method)	0.5-1000 µg/m ³
IV.	SOIL	pH	IS : 2720 (Part – 26) :2011	1 - 14
		Conductivity	Lab SOP No: SEPL/SOP/SOIL/LAB- 255,Issue no:01,Issue Date:01-08-2013; Based on Method Manual Soil Testing in India Department of Agriculture & Cooperation Ministry of Agriculture Government of India	1-1,00,000 µmho/cm
		Bulk Density	IS : 2720 (Part – 28):2010	0.2 – 3 gr/cc
		Moisture	IS : 2720 (Part – 18):2002	1.0 – 80 %

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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		Lab SOP No: SEPL/SOP/SOIL/LAB-248, Issue no:01, Issue Date:01-08-2013; Based on Method Manual Soil Testing in India Department of Agriculture & Cooperation Ministry of Agriculture Government of India	10-5000 mg/kg
	Magnesium		Lab SOP No: SEPL/SOP/SOIL/LAB-248, Issue no:01, Issue Date:01-08-2013; Based on Method Manual Soil Testing in India Department of Agriculture & Cooperation Ministry of Agriculture Government of India	10-5000 mg/kg
	Sodium (as Na)		Lab SOP No: SEPL/SOP/SOIL/LAB-253, Issue no:01, Issue Date:01-08-2013; Based on Method Manual Soil Testing in India Department of Agriculture & Cooperation Ministry of Agriculture Government of India	5-5000 mg/kg
	Potassium (as K)		Lab SOP No: SEPL/SOP/SOIL/LAB-252, Issue no:01, Issue Date:01-08-2013; Based on Method Manual Soil Testing in India Department of Agriculture & Cooperation Ministry of Agriculture Government of India	5-5000 mg/kg

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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
		Phosphorus (as P)Total	Lab SOP No: SEPL/SOP/SOIL/LAB-247, Issue no:01,Issue Date:01-08-2013; Based on Method Manual Soil Testing in India Department of Agriculture & Cooperation Ministry of Agriculture Government of India	1.0-5,000 mg/kg
		TKN	Lab SOP No: SEPL/SOP/SOIL/LAB-277, Issue no:01,Issue Date:01-08-2013; based on Method Manual Soil Testing in India Department of Agriculture & Cooperation Ministry of Agriculture Government of India	5-10000 mg/kg
		Organic Carbon	IS : 2720 (Part – 22):2010	0.1 -10 %
		Iron as Fe	USEPA: 3050B,& Iron by UV-Vis spectrophotometer, SEPL/SOP/SOIL/LAB-278, Issue no:01,Issue Date:01-08-2013.	5 - 1000 mg/kg
		Copper as Cu	USEPA : 3050B, & Copper by Flame AAS, SEPL/SOP/SOIL/LAB-279, Issue no:01,Issue Date:01-08-2013.	2-1000 mg/kg
		Chromium as Cr	USEPA: 3050B & Chromium by Flame AAS , SEPL/SOP/SOIL/LAB-280, Issue no:01,Issue Date:01-08-2013	2-1000 mg/kg

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		Cadmium as Cd	USEPA: 3050B, & Cadmium by Flame AAS, SEPL/SOP/SOIL/LAB-281, Issue no:01, Issue Date:01-08-2013	0.5-1000 mg/kg
		Lead as Pb	USEPA: 3050B, & Lead by Flame AAS SEPL/SOP/SOIL/LAB-282, Issue no: 01, Issue Date:01-08-2013.	5.0-1000 mg/kg
		Manganese as Mn	USEPA: 3050B, & Manganese by Flame AAS, SEPL/SOP/SOIL/LAB-283, Issue no:01, Issue Date:01-08-2013.	2-1000 mg/kg
		Zinc as Zn	USEPA: 3050B, & Zinc by Flame AAS, SEPL/SOP/SOIL/LAB-284, Issue no:01, Issue Date:01-08-2013	2-5000 mg/kg
		Nickel as Ni	USEPA: 3050B, & Zinc by Flame AAS, SEPL/SOP/SOIL/LAB-285, Issue no:01, Issue Date:01-08-2013	1.0-1000 mg/kg
		Sulphates as SO ₄	IS : 2720 (Part – 27):2010	10-10000 mg/kg

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