Laboratory	Uttar Pradesh Waste Management Project Laboratory (A Division of Ramky Enviro Engineers Limited), Plot No. 672, On NH-2, Sikandra Road, Vill-Kumbhi, Tehsil-Akbarpur, Dist. Kanpur Dehat, Uttar Pradesh			
Accreditation Standard	ISO/IEC 17025: 2005			
Discipline	Chemical Testing	Issue Date	08.06.2015	
Certificate Number	T-3469	Valid Until	07.06.2017	

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.	Effluents / Waste Water	рН	APHA (22 nd Edition) 4500-H ⁺ B: 2012	1 to 14			
		Temperature	APHA (22 nd Edition) 2550-B: 2012	1 °C to 100 °C			
		Conductivity	APHA (22 nd Edition) 2510-B: 2012	2 μMho/cm to 10000 μMho/cm			
		Acidity	APHA (22 nd Edition) 2310-B: 2012	10 mg/l to 400 mg/l			
		Alkalinity	APHA (22 nd Edition) 2320-B: 2012	10 mg/l to 400 mg/l			
		Total Solids	APHA (22 nd Edition) 2540-B: 2012	10 mg/l to 1000 mg/l			
		Total Dissolved Solids	APHA (22 nd Edition) 2540-C: 2012 (Total Dissolve Solids Dried at 180 °C)	10 mg/l to 1000 mg/l			
		Total Suspended Solids	APHA (22 nd Edition) 2540-D: 2012	10 mg/l to 1000 mg/l			
		Fixed Solids	APHA (22 nd Edition) 2540-E: 2012	10 mg/l to 1000 mg/l			
		Volatile Solids	APHA (22 nd Edition) 2540-E: 2012	10 mg/l to 1000 mg/l			
		Chlorides	APHA (22 nd Edition) 4500-Cl ⁻ B & C: 2012	5 mg/l to 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
	Effluents / Waste Water	Sulphates	APHA (22 nd Edition) 4500-SO ₄ ²⁻ D: 2012	1 mg/l to 1000 mg/l
		Sulphide	APHA (22 nd Edition) 4500-S ² F: 2012	1 mg/l to 50 mg/l
		Sulphite	APHA (22 nd Edition) 4500-SO ₃ ²⁻ B: 2012	1 mg/l to 1000 mg/l
		Nitrate Nitrogen	APHA (22 nd Edition) 4500-NO ₃ -B: 2012	0.1 mg/l to 50 mg/l
		Nitrite Nitrogen	APHA (22 nd Edition) 4500-NO ₂ B: 2012	1 mg/l to 50 mg/l
		Nitrogen (Ammonia)	APHA (22 nd Edition) 4500-NH ₃ B, C: 2012	1 mg/l to 1000 mg/l
		Fluorides	APHA (22 nd Edition) 4500-F ⁻ D: 2012	1.0 mg/l to 10 mg/l
		Residual Chlorine	APHA (22 nd Edition) 4500-Cl B: 2012	10 to 100 mg/l
		Cyanides Total	APHA (22 nd Edition) 4500-CN ⁻ C, E: 2012	0.20 mg/l to 10 mg/l
		Total Hardness	APHA (22 nd Edition) 2340-C: 2012	5 mg/l to 1000 mg/l
		Phosphorus	APHA (22 nd Edition) 4500-P D: 2012	1 mg/l to 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
	Effluents / Waste Water	Dissolved Oxygen	APHA (22 nd Edition) 4500-O C: 2012	1 mg/l to 12 mg/l
		Oil & Grease	APHA (22 nd Edition) 5520-B: 2012	1 mg/l to 500 mg/l
		Chemical Oxygen Demand	APHA (22 nd Edition) 5220-B: 2012	5 mg/l to 100000 mg/l
		Biological Oxygen Demand	IS 3025 (Part 44) APHA (22 nd Edition) 5210-B, 4500-O C: 2012	5 mg/l to 10000 mg/l
		Phenolic Compounds as Phenols	APHA (22 nd Edition) 5530-D: 2012	0.1 mg/l to 100 mg/l
		Calcium	APHA (22 nd Edition) 3500-Ca B: 2012	5 mg/l to 1000 mg/l
		Sodium	APHA (22 nd Edition) 3500-Na B: 2012	5 mg/l to 1000 mg/l
		Magnesium	APHA (22 nd Edition) 3500-Mg B: 2012	5 mg/l to 1000mg/l
		Potassium	APHA (22 nd Edition) 3500-K B: 2012	5 mg/l to 1000 mg/l
2.	Hazardous Waste (Solid & Waste)	pН	USEPA 1998 SW-846; 9045-C	1 to 14
	(Duna a maste)	Bulk Density	APHA 2710-F ATM D-5057-10	0.2 g/cc to 3 g/cc

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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
	Hazardous Waste (Solid & Waste)	Calorific Value	IS 1350 (Part 2): 1970	500 cal/g to 10,000 cal/g
		Flash Point	USEPA 1998, SW-846; 1020-A	Ambient – 80 °C
		Moisture	IS 326 (Part 21): 2001	0.1 % to 100 %
		Loss on Drying	APHA (22 nd Edition) 2540: 2012	5 % to 100 %
		Loss on Ignition	APHA (22 nd Edition) 2540: 2012	5 % to 100 %
		Ash	APHA (22 nd Edition) 2540: 2012	1 % to 100 %
		Paint Filter Liquid Test	USEPA 1998, SW-846; 9095-A	Pass/ Fail
		Reactive Cyanide	USEPA 1998, SW-846; 9010-B 9014	1 mg/kg to 500 mg/kg
		Reactive Sulfide	USEPA 1998, SW-846; 9034	10 mg/kg to 600 mg/kg
		Extractable Organics	USEPA 1998, SW-846; 3540-C	1 % to 5 %
		Water Soluble Inorganic	APHA (22 nd Edition) 2540 E: 2012	1.0 % to 100%
		Water Soluble Organics	APHA (22 nd Edition) 2540 E: 2012	1.0 % to 100%
		WLT/TCLP (Toxicity Characteristic Leaching Procedure) Metals	USEPA 1998, SW-846; 1311	
		Iron	USEPA 1998, SW-846; 7380	0.1 mg/l to 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
II.	WATER			
1.	Bore well & Domestic Water	рН	APHA (22 nd Edition) 4500-H ⁺ B: 2012	1 to 14
		Temperature	APHA (22 nd Edition) 2550-B: 2012	1 °C to 70 °C
		Conductivity	APHA (22 nd Edition) 2510-B: 2012	2 μMho/cm to 10000 μMho/cm
		Acidity	APHA (22 nd Edition) 2310-B: 2012	10 mg/l to 400 mg/l
		Alkalinity	APHA (22 nd Edition) 2320-B: 2012	10 mg/l to 400 mg/l
		Total Solids	APHA (22 nd Edition) 2540-B: 2012	10 mg/l to 1000 mg/l
		Total Dissolved Solids	APHA (22 nd Edition) 2540-C: 2012	10 mg/l to 1000 mg/l
		Total Suspended Solids	APHA (22 nd Edition) 2540-D: 2012	10 mg/l to 1000 mg/l
		Fixed Solids	APHA (22 nd Edition) 2540-E: 2012	10 mg/l to 1000 mg/l
		Volatile Solids	APHA (22 nd Edition) 2540-E: 2012	40 mg/l to 1000 mg/l
		Chlorides	APHA (22 nd Edition) 4500-Cl ⁻ B & C: 2012	10 mg/l to 500 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
	Bore well & Domestic Water	Sulphates	APHA (22 nd Edition): 2012 4500 SO ₄ ⁻² D	1 mg/l to 40 mg/l 40 mg/l to 1000 mg/l
		Sulphide	APHA (22 nd Edition) 4500-S ² F: 2012	0.1 mg/l to 100 mg/l
		Sulphite	APHA (22 nd Edition) 4500-SO ₃ ²⁻ B: 2012	1.0 mg/l to 100 mg/l
		Nitrate Nitrogen	APHA (22 nd Edition) 4500-NO ₃ -B: 2012	0.1 mg/l to 50 mg/l
		Nitrite Nitrogen	APHA (22 nd Edition) 4500-NO ₂ B: 2012	1 mg/l to 50 mg/l
		Nitrogen (Ammonia)	APHA (22 nd Edition) 4500-NH ₃ B, C: 2012	1.0 mg/l to 100 mg/l
		Fluorides	APHA (22 nd Edition) 4500 F ⁻ D: 2012	0.1 mg/l to 10 mg/l
		Residual Chlorine	APHA (22 nd Edition) 4500-Cl B: 2012	0.2 mg/l to 10 mg/l
		Total Cyanides	APHA (22 nd Edition) 4500-CN ⁻ C E: 2012	0.20 mg/l to 10 mg/l
		Total Hardness	APHA (22 nd Edition) 2340 C: 2012	5 mg/l to 400 mg/l
		Phosphorus	APHA (22 nd Edition) 4500-P D: 2012	1 mg/l to 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
	Bore well & Domestic Water	Dissolved Oxygen	APHA (22 nd Edition) 4500-O C: 2012	1 mg/l to 12 mg/l
		Oil & Grease	APHA (22 nd Edition) 5520-B: 2012	1 mg/l to 50 mg/l
		Chemical Oxygen Demand	APHA (22 nd Edition) 5220-B: 2012	5 mg/l to 600 mg/l
		Biological Oxygen Demand	IS 3025 (Part 44) APHA (22 nd Edition) 5210-B, 4500-O C: 2012	5 mg/l to 100 mg/l
		Phenolic Compounds	APHA (22 nd Edition) 5530-D: 2012	0.1 mg/l to 10 mg/l
		Calcium	APHA (22 nd Edition) 3500-Ca B: 2012	10 mg/l to 100 mg/l
		Sodium	APHA (22 nd Edition) 3500-Na B: 2012	1 mg/l to 1000 mg/l
		Magnesium	APHA (22 nd Edition) 3500-Mg B: 2012	1 mg/l to 1000 mg/l
		Potassium	APHA (22 nd Edition) 3500-K B : 2012	1 mg/l to 100 mg/l
III.	AIR, GASES & AT	TMOSPHERE		
1.	Ambient Air	Sulphur Dioxide	IS 5182 (Part 2): 2001	$4~\mu g/m^3$ to $200~\mu g/m^3$
	Quality Monitoring	Oxides of Nitrogen	IS 5182 (Part 6): 2006	$10 \ \mu g/m^3 \text{ to } 750 \ \mu g/m^3$
		Particulate Matter (PM10)	IS 5182 (Part 23): 2004	$10 \ \mu\text{g/m}^3$ to $1000 \ \mu\text{g/m}$

Rini Narayan Convenor

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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
2.	Stack	Sulphur Dioxide	Is 11255 (Part 2): 1985	$10 \text{ mg/m}^3 \text{ to } 1000 \text{ mg/m}^3$
	Monitoring	Oxides of Nitrogen	IS 11255 (Part 7): 2005	$10 \text{ mg/m}^3 \text{ to } 1000 \text{ mg/m}^3$
		Particulate Matter	Is 11255 (Part 1): 1985	$10 \text{ mg/m}^3 \text{ to } 1000 \text{ mg/m}^3$