



**National Accreditation Board for
Testing and Calibration Laboratories**

(A Constituent Board of Quality Council of India)



CERTIFICATE OF ACCREDITATION

SHIVALIK SOLID WASTE MANAGEMENT LTD.

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

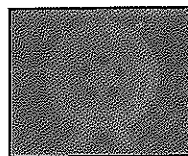
Vill. Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh

in the field of

TESTING

Certificate Number TC-5757

Issue Date 29/05/2017



Valid Until 28/05/2019

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

N. Venkateswaran
Program Director

Anil Relia
Chief Executive Officer



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SCOPE OF ACCREDITATION

Laboratory Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh

Accreditation Standard ISO/IEC 17025: 2005

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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
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CHEMICAL TESTING

At Laboratory				
I.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	PM _{2.5}	T/ AA -02 issue no.2 dated 1 st Aug 2015 (Based on CPCB guidelines Vol I)	5 µg/m ³ to 500 µg/m ³
		PM ₁₀	IS: 5182(P-23) 2006 RA 2012	5 µg/m ³ to 1000 µg/m ³
		Sulphur Dioxide (SO ₂)	IS 5182(P-II) 2001/ RA 2012	4 µg/m ³ to 150 µg/m ³
		Nitrogen Dioxide (NO ₂)	IS 5182 (P-VI) 2006/ RA 2012	4 µg/m ³ to 80 µg/m ³
		Ammonia	T/ AA -05 issue no.2 dated 1 st Aug 2015(Based on CPCB guidelines Vol I)	10 µg/m ³ to 400 µg/m ³
		Ozone	IS:5182 (Part-9) 1974 RA 2014	10 µg/m ³ to 200 µg/m ³
		Benzopyrene (BaP) in Particulate Matter	IS 5182 (Part – 12) 2004 RA 2014	0.002 ng/m ³ to 2 ng/m ³ 1 ng/m ³ to 100 ng/m ³
		Benzene	IS 5182 (part -11) 2006 RA 2012	0.5 µg/m ³ to 25 µg/m ³
2.	Metals in Particulate Matter	Lead (Pb)	IS 5182 (Part -22) 2014,	0.4 µg/m ³ to 100 µg/m ³
		Nickel (Ni)	T/ AA -05 issue no.2 dated 1 st Aug 2015 (Based on CPCB guidelines Vol I)	10 ng/m ³ to 100 ng/m ³
3.	Stack Emissions	Arsenic (As)		2 ng/m ³ to 50 ng/m ³
		Particulate Matter	IS:11255 (P-1)-1985, Reaffirmed2014	5 mg/Nm ³ to 2000 mg/Nm ³
		Oxide of Nitrogen (NOx)	IS : 11255 (P-7)-2005 RA 2012	1 mg/Nm ³ to 130 mg/Nm ³

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		Sulphur Dioxide (SO ₂)	IS :11255 (P-2)1985 RA 2014	3 mg/Nm ³ to 200 mg/Nm ³
III.	POLLUTION & ENVIRONMENT			
1.	Waste Water (Effluents/ Sewage)	pH value	APHA22nd Ed. 2012 – 4500H+- B	2 to 12
		Temperature	IS:3025 (P-9)-1984 Reaffirmed 2006	4 °C to 50°C
		Specific conductance	APHA22nd Ed. 2012 – 2510-B,	1 µS/cm to 100 mS/cm
		Oil & Grease	APHA22nd Ed. 2012 - 5520 E	1 mg /L to 50 mg /L
		Acidity	APHA22nd Ed. 2012 - 2310 B	1 mg /L to 500 mg/L
		Sulphite	APHA22nd Ed. 2012 – 4500-SO ₃ 2- - B	1 mg /L to 50 mg/L
		Total dissolved solids	APHA22nd Ed. 2012 - 2540-C	20 mg /L to 40000 mg/L
		Total suspended solids	APHA22nd Ed. 2012 – 2540-D	5.0 mg /L to 1000 mg/L
		Volatile Solids/Organic solids	IS 3025 (Part 18):1984/ RA2012; Gravimetric Method	10 mg /L to 4000 mg/L
		Fixed Residue/ Inorganic solids	APHA22nd Ed. 2012 – 2540G/ IS:3025 (P-18): 1984 RA 2012	10 mg /L to 4000 mg/L
		Sulphate	APHA22nd Ed. 2012 – 4500-SO ₄ 2- D	2 mg /L to 1000 mg/L
		Chloride as Cl-	APHA22nd Ed. 2012 - 4500Cl- B	5 mg /L to 1000 mg/L

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		Nitrogen (Ammonia As NH ₃ -N)	APHA22nd Ed. 2012 - 4500 NH3 B & C	5 mg /L to 100 mg/L
		Total Kjeldhal Nitrogen	APHA22nd Ed. 2012 - 4500 NH3 B (Macro Kjeldhal Method)	5 mg /L to 100 mg/L
		Phosphorous	IS:3025 (P-31) -1988 Reaffirmed 2014	0.1 mg /L to 10 mg/L
		Free Residual Chlorine	IS:3025 (P-26) -1986 RA 2014	0.1 mg /L to 5 mg/L
		Chemical Oxygen Demand (COD)	APHA22nd Ed. 2012 - 5220 B	10 mg /L to 5000 mg/L
		Biochemical oxygen demand (BOD)	IS 3025 (Part 44): 1993/ RA 2014; Oxygen Depletion Method	1 mg /L to 2000 mg/L
		Dissolved Oxygen	APHA22nd Ed. 2012 - 4500-O B,C,D,E,F (Iodometric Method with Azide Modifications)	0.1 mg /L to 10 mg /L
		Cadmium	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 10mg/L
		Chromium	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 20mg/L
		Copper	APHA22nd Ed. 2012 - 3111B (3-18)	0.1 mg /L to 20 mg/L
		Lead	APHA22nd Ed. 2012 - 3111 B (3-18)	0.05 mg /L to 20 mg/L
		Manganese	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 10 mg/L
		Nickel	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 10 mg/L
		Selenium	APHA22nd Ed. 2012 - 3113 B (Page No.-3-28)	0.05 mg /L to 10 mg/L
		Arsenic	APHA22nd Ed. 2012 - 3113 B (3-28)	0.1 mg /L to 5 mg/L

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		Zinc	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 25 mg/L
		Mercury	APHA22nd Ed. 2012 - 3112 B (3-23)	0.01 mg /L to 5 mg/L
		Iron	APHA22nd Ed. 2012 - 3111 B(3-18)	0.1 mg /L to 50 mg/L
		Cobalt (Co)	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 10 mg/L
		Boron as B	APHA22nd Ed. 2012 - 4500 - B - B (Curcumin Method)	0.1 mg /L to 2mg /L
		Sodium	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 100 mg/L
		Potassium	APHA22nd Ed. 2012 - 3111 B (3-18)	0.1 mg /L to 100 mg/L
2.	Wastes (Liquid/ Slurry/ Sludge/Solid/ Semi Solid)	pH	APHA22nd Ed. 2012 - 4500H+ - B	2 to 12
		Ash Content	IS: 1448 (P: 126) :1988 RA2010	0.5 % to 90 %
		Loss on Ignition	Lab SOP No. - T/HW-04 Issue No. 2 dtd. 01.08.16 Ref. APHA22nd Ed. 2012 2540G	0.5 % to 90 %
		Calorific Value	IS: 1350 (P: 2):1970, R 2015	100 cal/g to 10000 cal/g
		Loss on drying	SOP NO. T/HW-05 Issue No. 2 dtd. 01.08.16 (Based on CPCB Manual LATS/16/2003-04 Aug 2002)	1 % to 95 %
		Fixed Solids	APHA22nd Ed. 2012 - 2540 E	0.05 % to 25 %
		Volatile Solids	APHA22nd Ed. 2012 - 2540 E	0.05 % to 25 %

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3.	Metals in Waste	Arsenic as As	Lab SOP T/HW/06 issue no.2 dtd. 01.08.15 (Based CPCB, LATS/16/2002-03 & APHA22nd Ed. 2012 3113	0.5 mg/kg to 1000 mg/kg
		Copper as Cu		0.5 mg/kg to 1000 mg/kg
		Chromium as Cr		0.5 mg/kg to 1000 mg/kg
		Cadmium as Cd		0.5 mg/kg to 1000 mg/kg
		Iron as Fe		0.5 mg/kg to 2000 mg/kg
		Lead as Pb		0.5 mg/kg to 1000 mg/kg
		Nickel as Ni		0.5 mg/kg to 1000 mg/kg
		Zinc as Zn		0.5 mg/kg to 1000 mg/kg
		Mercury as Hg		0.5 mg/kg to 100 mg/kg
4.	Metal Testing in Leachate quality testing	Cu	SOP No. : SOP/T/HW to 06 16 issue No. 2 dtd 1.08.16 USEPA method 1311 (July1992)	0.1 mg /L to 50 mg/L
		Cr		0.1 mg /L to 50 mg/L
		Ni		0.1 mg /L to 50 mg/L
		Zn		0.1 mg /L to 50 mg/L
		Pb		0.1 mg /L to 50 mg/L
		Fe		0.1 mg /L to 50 mg/L
		Cd		0.1 mg /L to 50 mg/L
5.	Soil / Sediments	pH	CI-2, IS:2720 (P-26) 1987 RA 2011	1 to 13
		Conductivity	IS:14767: 2000 RA 2016	0.1 mS/cm to 199.9 mS/cm
		Moisture Content	Sec-1, IS:2720 (P-II) 1973 RA 2015	1 % to 80 %
		Organic Matter	Sec-1, IS:2720 (Part XXII) 1972 RA 2015	1 % to 70 %
		Total Nitrogen	IS 14684 : 1999 RA 2014	1 % to 40 %
		Available Phosphorus	SOP No.T/S 09 issue no. 2 dtd. 01.08.15 (based on IS 10158 :1982 RA 2009 Manual – Soil Testing in India – Department of Agriculture)	1 mg/kg to 2000 mg/kg
		Available Potassium	SOP No.T/S 10 issue no. 2 dtd. 01.08.15 (Based on Manual – Soil Testing in	1 kg/ ha to 100 kg/ ha

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6.	Effluents Toxicity	Bio Assay Test	India – Department of Agriculture) IS 6582 :1971 RA 2009 APHA22nd Ed. 2012 - 8910 C	Qualitative Test
III.	WATER			
1.	Surface water/ Ground water	Colour	IS 3025 (Part 4): 1983/ RA 2002; Platinum Cobalt (Visual Comparison) Method	1 Hazen unit to 100 Hazen unit
		Temperature	Is 3025 (Part 9): 1984/ R 2002; by Thermometer	4 °C to 50 °C
		Turbidity	IS 3025 (Part 10): 1984/ R 1996; Nephelometer Method	0.01 NTU to 100 NTU
		pH value	APHA22nd Ed. 2012 - 4500H+-B	4 to 12
		Specific Conductance	APHA22nd Ed. 2012 - 2510-B	1 µS/cm to 2000 µS/cm 0.5 mS/cm to 100 mS/cm
		Total dissolved solids	IS 3025 (Part 16):1984/ RA 2002; Gravimetric Method/ APHA22nd Ed. 2012 - 2540-C	10 mg /L to 2000 mg/L
		Total suspended solids	IS 3025 (Part 17):1984/ RA 1996; Gravimetric Method APHA22nd Ed. 2012 - 2540-D	5 mg /L to 500 mg /L
		Volatile and fixed residue (Total filterable and non filterable)	IS 3025 (Part 18):1984/ R 1996; Gravimetric Method	10 mg /L to 200 mg /L
		Total Hardness as CaCO ₃	APHA22nd Ed. 2012 - 2340-C	5 mg /L to 1000 mg/L
		Total Alkalinity	APHA22nd Ed. 2012 - 2320 B	5 mg /L to 1000 mg/L

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		Sulphate as SO ₄ ²⁻	IS 3025 (Part 24):1986/ RA 2014; Turbidity Method	1 mg /L to 400 mg/L
		Phosphorous as P	IS 3025 (Part 31):1988/ RA 2014; Stannous Chloride	0.01 mg /L to 2 mg/L
		Chloride as Cl ⁻	IS 3025 part -32 : 1988/ RA 2014 Argentometric Method	5 mg /L to 1000 mg/L
		Free Residual Chlorine	IS:3025 (P-26) -1986 Reaffirmed 2014	0.1 mg /L to 1.5 mg/L
		Phenolic Compound	IS:3025 (P-43)-1992 Reaffirmed 2014	0.001 mg /L to 0.1 mg/L
		Sulphide as S ²⁻	IS:3025 (P-29)-1986 Reaffirmed 2014	0.2 mg /L to 20 mg/L
		Nitrate as NO ₃ ⁻	APHA22nd Ed. 2012 - (4500 B); UV Spectrometric Screening Method	0.5 mg /L to 100 mg/L
		Dissolved Oxygen	APHA22nd Ed. 2012 - 4500-O; Azide Modification Method	0.1 mg /L to 10 mg/L
		Calcium as Ca	IS 3025 (Part 40): 1991/ RA 2014; EDTA Method (Titrimetric Method)	1 mg /L to 500 mg/L
		Biochemical oxygen demand (BOD)	IS 3025 (Part 44):1993/ RA 2014 Oxygen Depletion Method	5 mg /L to 100 mg/L
		Magnesium as Mg	APHA22nd Ed. 2012 - 3500-mg Calculation Method	1 mg /L to 100 mg/L
		Chemical Oxygen Demand (COD)	APHA22nd Ed. 2012 - 5220 B	4 mg /L to 200 mg/L
		Oil & Grease	APHA22nd Ed. 2012 - 5520 E	1 mg /L to 25 mg /L

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		Cadmium	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA 2014	0.01 mg /L to 2 mg/L
		Chromium	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA 2014	0.01 mg /L to 2 mg/L
		Copper	APHA22nd Ed. 2012 - 3111B (3-18)/ IS 3025 (part 2): 2004 RA 2014	0.01 mg /L to 5 mg/L
		Lead	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004	0.05 mg /L to 10 mg/L
		Manganese	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004	0.01 mg /L to 5 mg/L
		Nickel	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA 2014	0.2 mg /L to 10 mg/L
		Selenium	APHA22nd Ed. 2012 - 3113 B (Page No.-3-28)/ IS 3025 (part 2): 2004 RA 2014	0.05 mg /L to 5 mg/L
		Arsenic	APHA22nd Ed. 2012 - 3113 B (3-28)/ IS 3025 (part 2): 2004 RA 2014	0.01 mg /L to 5mg/L
		Zinc	APHA22nd Ed. 2012 - 3111B (318)/ IS 3025 (part 2): 2004 RA 2014	0.01 mg/L to 5 mg/L
		Mercury	APHA22nd Ed. 2012 - 3112 B (3-23)/ IS 3025 (part 2): 2004 RA 2014	0.001 mg /L to 2 mg/L
		Iron	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004	0.1 mg /L to 10 mg/L

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2.	Drinking Water	Cobalt (Co)	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA 2014	0.1 mg /L to 10 mg/L
		Colour	IS 3025 (Part 4): 1983/ R A2014; Platinum Cobalt (Visual Comparison) Method	1 Hazen unit to 100 Hazen unit
		Odour	IS 3025 (Part 5): 1983/ RA 2012	Qualitative (Agreeable / Not agreeable)
		Temperature	IS 3025 (Part 9): 1984/ RA 2006; by Thermometer	4 °C to 50 °C
		Turbidity	IS 3025 (Part 10): 1984/ 2012; Nephelometer Method	0.1 NTU to 100 NTU
		pH value	APHA22nd Ed. 2012 – 4500H+ - B	4 to 12
		Specific Conductance	APHA22nd Ed. 2012 – 2510-B	1 µS/cm to 2000 µS/cm
		Total dissolved solids	IS 3025 (Part 16):1984/ R 2012; Gravimetric Method/ APHA22nd Ed. 2012 - 2540-C	0.5 mS/cm to 100 mS/cm 10 mg /L to 1000 mg/L
		Total suspended solids	IS 3025 (Part 17):1984/ R 2012; Gravimetric Method APHA 22nd Ed. 2012 – 2540-D	1000 mg /L to 40000 mg/L 5 mg /L to 50 mg /L
		Total Hardness as CaCO ₃	APHA22nd Ed. 2012 – 2340-C	50 mg /L to 1000 mg/L 5 mg /L to 750 mg/L
		Total Alkalinity	APHA22nd Ed. 2012 – 2320 B	5 mg /L to 750 mg/L
		Sulphate	IS 3025 (Part 24):1986/ RA 2014; Turbidity Method	5 mg /L to 250 mg/L
		Chloride as Cl-	IS 3025 part -32 : 1988/ RA 2014; Argentometric Method	5 mg /L to 100 mg/L 100 mg /L to 2000 mg/L

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		Free Residual Chlorine	IS:3025 (P-26) –1986 RA 2014	0.1 mg /L to 1.5 mg/L
		Phenolic Compound	IS:3025 (P-43)-1992 RA 2014	0.001 mg /L to 0.1 mg/L
		Sulphide (as S ²⁻)	IS:3025 (P-29)-1986 RA 1998	0.1 mg /L to 5 mg/L
		Ammonia as NH ³ -N	APHA22nd Ed. 2012 – 4500 -NH3 B & C	0.1 mg /L to 10 mg /L
		Anionic detergents (as MBAS)	APHA22nd Ed. 2012 – 5540 C	0.1 mg /L to 10 mg/L
		Fluoride	APHA22nd Ed. 2012 – 4500 F- D (SPANDS method)	0.1 mg /L to 10 mg/L
		Nitrate as NO ₃ ⁻	APHA22nd Ed. 2012 - (4500 B); UV Spectrometric Screening Method	1 mg /L to 100 mg/L
		Calcium as Ca	IS 3025 (Part 40): 1991 RA2014; EDTA Method (Titrimetric Method)	1 mg /L to 500 mg/L
		Magnesium as Mg	APHA22nd Ed. 2012 - 3500-mg Calculation Method	1 mg /L to 100 mg/L
		Cadmium	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004	0.003 mg /L to 2 mg/L
		Chromium	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA2014	0.01 mg /L to 2 mg/L
		Copper	APHA22nd Ed. 2012 - 3111B (3-18)/ IS 3025 (part 2): 2004 RA2014	0.01 mg /L to 5 mg/L
		Lead	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA2014	0.01 mg /L to 2 mg/L

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		Manganese	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA2014	0.1 mg /L to 5 mg/L
		Nickel	APHA22nd Ed. 2012 - 3111 B (3-18)/ IS 3025 (part 2): 2004 RA2014	0.02 mg /L to 10 mg/L
		Selenium	APHA22nd Ed. 2012 - 3113 B (Page No.-3-28)/ IS 3025 (part 2): 2004	0.005 mg /L to 1 mg/L
		Arsenic	APHA22nd Ed. 2012 - 3113 B (3-28)/ IS 3025 (part 2): 2004 RA2014	0.01 mg /L to 2 mg/L
		Zinc	APHA22nd Ed. 2012 - 3111B (3-18)/ IS 3025 (part 2): 2004	0.4 mg /L to 25 mg/L
		Mercury	APHA22nd Ed. 2012 - 3112 B (3-23)/ IS 3025 (part 2): 2004 RA2014	0.001 mg /L to 0.5 mg/L
		Iron	APHA22nd Ed. 2012 - 3111 B(3-18)/ IS 3025 (part 2): 2004 RA2014	0.1 mg /L to 5 mg/L
		Aluminum	IS 3025 (Part 55):2003 RA2014	0.05 mg /L to 5 mg/L
		Boron	IS 3025 (Part 57) :2005 RA 2010	0.02 mg /L to 5 mg/L
3.	Swimming Pool/ Construction water	pH value	APHA22nd Ed. 2012 - 4500H+ - B	4 to 12
		Total Alkalinity	APHA22nd Ed. 2012 - 2320 B	5 mg /L to 700 mg/L
		Aluminum	IS 3025 (Part 31) : 1988 RA 2014	0.05 mg /L to 5 mg/L
		Total Residual Chlorine	IS:3025 (P-26) -1986 RA 2014	0.1 mg /L to 1mg/L
		Oxygen absorbed in 4 Hrs. at 27 °C	IS 3025 Part 63 :2007 RA 2013	0.4 mg /L to 5 mg/ L

Iti Saxena

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Convenor

N. Venkateswaran

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Program Director



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan, Himachal Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5757

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Validity 29.05.2017 to 28.05.2019

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
		Total dissolved solids	IS 3025 (Part 16):1984/ RA 2012; Gravimetric Method/ APHA22nd Ed. 2012 - 2540-C	10 mg /L to 1000 mg/L 1000 mg /L to 40000 mg/L
		Iron	APHA22nd Ed. 2012 - 3111 B (3-18)	0.01 mg /L to 5 mg/L
		Lead	APHA22nd Ed. 2012 - 3111 B (3-18)	0.01 mg /L to 5 mg/L
		Colour	IS 3025 (Part 4): 198 RA 2012; Platinum Cobalt (Visual Comparison) Method	1 to 100 Hazen unit
		Turbidity	IS 3025 (Part 10): 1984/ RA 2012; Nephelometer Method	0.1 NTU to 100 NTU
		Odour	IS 3025 (Part 5): 1983/ RA 2012	(Qualitative) Agreeable / Not agreeable

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CHEMICAL TESTING

AT SITE				
I.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	CO	T/ AA -06 issue no.2 dtd. 01.08.15 (Based on CPCB guidelines)	1 mg/m ³ to 10 mg/m ³
2.	Stack Emission	CO ₂	T/ AE -04 issue no.2 dtd 01.08.15 (Based on Manufacturer's Manual	0.2 % to 25 %
		O ₂		0.2 % to 25 %
3.	Ambient Noise Levels	Noise Levels Leq dB(A) Ambient	IS: 9989-1981/RA2001	30 dB(A) to 130 dB(A)
4.	Source Noise Levels- (DG)	Noise Levels – Source	IS: 4758-1968/RA2002	30 dB(A) to 130 dB(A)


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