

Laboratory	National Center for Compositional Characterisation of Materials, ECIL (Post), Hyderabad, Telangana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	23.09.2015
Certificate Number	T-1650	Valid Until	22.09.2017
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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. METALS & ALLOYS				
1.	Boron carbide	Aluminum	NCCCM /Inhouse Method -2 Date 4/3/2013	(0.002 % to 1.25 %)/ 0.0005 % w/w
		Iron	NCCCM /Inhouse Method -2 Date 4/3/2013	(0.002 % to 1.25 %)/ 0.0004 % w/w
		Nickel	NCCCM /Inhouse Method -2 Date 4/3/2013	(0.002 % to 1.25 %)/ 0.0006 % w/w
		Silica	NCCCM /Inhouse Method -2 Date 4/3/2013	(0.015 % to 1.25 %)/ 0.0045 % w/w
		Tungsten	NCCCM /Inhouse Method -2 Date 4/3/2013 ICP-AES	(0.012 % to 1.25 %)/ 0.0036 % w/w
2.	Metallic Coatings (Thin films)	Determination of thickness of thin films in Conducting material	NCCCM /In house Method -1 Date 3/2/2009 RBS technique	(0.02 µm to 15 µm)/ 0.02µm
II. POLLUTION & ENVIRONMENT				
1.	Powdered environmental matrices, sediment/soil, hair, plants, polythene, fish, fly Ash	Total Mercury	APHA Method (22 nd Edition) 3112B (Cold Vapor AAS)	(0.06 mg/kg to 150 mg/kg)/ 0.02 mg/kg

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III. WATER				
1.	Ground water / drinking water/ Natural water	Fluoride	US EPA 300.1 (Ion Chromatograph)	(0.1 mg/l to 100 mg/l)/ 0.01 mg/l
		Chlorides	US EPA 300.1 (Ion Chromatograph)	(0.12 mg/l to 100 mg/l)/ 0.04 mg/l
		Nitrate	US EPA 300.1 (Ion Chromatograph)	(0.3 mg/l to 100 mg/l)/ 0.1 mg/l
		Sulfates	US EPA 300.1 (Ion Chromatograph)	(0.1 mg/l to 100 mg/l)/ 0.01 mg/l
		Phosphate	US EPA 300.1 (Ion Chromatograph)	(0.3 mg/l to 100 mg/l)/ 0.1 mg/l
		Chromium (VI)	USEPA 1636 (Ion Chromatograph)	(0.03 mg/l to 1 mg/l)/ 0.01 mg/l
		Mercury	APHA Method (22 nd Edition) 3112B (CVAAS)	(5 µg/l to 150 µg/l)/ 0.5 µg/l
		Arsenic,	APHA Method (22 nd Edition) 3125B (ICP-MS)	(0.5 µg/l to 50)/0.05 µg/l
		Selenium	APHA Method (22 nd Edition) 3125B (ICP-MS)	(1 to 50 µg/l)/0.10 µg/l
Aluminum	APHA Method (22 nd Edition) 3125B (ICP-MS)	(0.5 µg/l to 100 µg/l)/2 µg/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
	Ground water / drinking water / Natural water	Cadmium	APHA Method (22 nd Edition) 3125B (ICP-MS)	(0.5 µg/l to 5 µg/l) / 0.03 µg/l
		Lead	APHA Method (22 nd Edition) 3125B (ICP-MS)	(0.5 µg/l to 100 µg/l) / 0.2 µg/l
		Copper	APHA Method (22 nd Edition) 3125B (ICP-MS)	(0.5 µg/l to 50 µg/l) / 0.7 µg/l
		Manganese	APHA Method (22 nd Edition) 3125B (ICP-MS)	(0.5 µg/l to 20 µg/l) / 0.5 µg/l
		Aluminum	APHA Method (22 nd Edition) 3113B (GFAAS)	(0.5 µg/l to 100 µg/l) / 2 µg/l
		Cadmium	APHA Method (22 nd Edition) 3113B (GFAAS)	(0.5 µg/l to 5 µg/l) / 0.03 µg/l
		Lead	APHA Method (22 nd Edition) 3113B (GFAAS)	(0.5 µg/l to 100 µg/l) / 0.2 µg/l
		Copper	APHA Method (22 nd Edition) 3113B (GFAAS)	(0.5 µg/l to 50 µg/l) / 0.7 µg/l
		Manganese	APHA Method (22 nd Edition) 3113B (GFAAS)	(0.5 µg/l to 20 µg/l) / 0.5 µg/l

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	Ground water / drinking water/ Natural water	Boron	APHA Method (22 nd Edition) 3120 (ICP-AES)	(0.5 mg/l to 50 mg/l)/ 0.1 mg/l
		Calcium	APHA Method (22 nd Edition) 3120 (ICP-AES)	(0.5 mg/l to 100 mg/l)/ 0.06 mg/l
		Magnesium	APHA Method (22 nd Edition) 3120 (ICP-AES)	(0.2 mg/l to 50 mg/l)/ 0.03 mg/l
		Zinc	APHA Method (22 nd Edition) 3120 (ICP-AES)	(0.1 mg/l to 50 mg/l)/ 0.002 mg/l
		Iron	APHA Method (22 nd Edition) 3120 (ICP-AES)	(0.1 mg/l to 50 mg/l)/ 0.01 mg/l
		Phenol	APHA Method (22 nd Edition) 5530	(20 µg/l to 120 µg/l)/ 5 µg/l
		Surfactants	APHA Method (22 nd Edition) 5540B	(5 µg/l to 25 µg/l)/ 0.5 µg/l
		Total Hardness	APHA Method (22 nd Edition) 2340C EDTA titrimetric method	(10 mg/l to 1000 mg/l)/ 7 mg/l
		Total Dissolved solids	APHA Method (22 nd Edition) 2540C	(50 mg/l to 10000 mg/l)/ 50 mg/l
		Residual Chlorine	APHA Method (22 nd Edition) 4500 Cl B	(7 mg/l to 22000 mg/l)/ 7 mg/l
	Alkalinity	APHA Method (22 nd Edition) 2320B	(10 mg/l to 25000 mg/l)/ 10 mg/l	

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	Ground water / drinking water / Natural water	Free Cyanide	NCCCM /In house Method -3 Date 1/1/2015 Ion chromatography	(10 µg/l to 100 µg/l)/2µg/l (100 to 500)/10 µg/l
		pH	APHA Method (22 nd Edition) 4500-H ⁺	0.1 to 13.9
		Conductivity	APHA Method (22 nd Edition) 2510	0.1 µS/cm to 20000 µS/cm
		Turbidity	APHA Method (22 nd Edition) 2130B	0 NTU to 1000 NTU

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