National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : JAWAHARLAL NEHRU ALUMINIUM RESEARCH DEVELOPMENT AND DESIGN CENTRE, AMRAVATI ROAD, WADI, NAGPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8254 **Page No** 1 of 6

Validity 11/11/2022 to 10/11/2024 **Last Amended on** 14/12/2022

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Antimony (Sb)	ASTM E1251 – 17a
2	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Bismuth (Bi)	ASTM E1251 – 17a
3	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Chromium (Cr)	ASTM E1251 – 17a
4	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Cobalt (Co)	ASTM E1251 – 17a
5	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Copper (Cu)	ASTM E1251 – 17a
6	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Iron (Fe)	ASTM E1251 – 17a
7	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Lead (Pb)	ASTM E1251 – 17a
8	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Magnesium (Mg)	ASTM E1251 – 17a
9	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Manganese (Mn)	ASTM E1251 – 17a
10	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Nickel (Ni)	ASTM E1251 – 17a
11	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Silicon (Si)	ASTM E1251 – 17a
12	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Tin (Sn)	ASTM E1251 – 17a
13	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Titanium (Ti)	ASTM E1251 – 17a
14	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Vanadium (V)	ASTM E1251 – 17a
15	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Zinc (Zn)	ASTM E1251 – 17a
16	CHEMICAL- METALS & ALLOYS	Aluminium and Its Alloys	Zirconium (Zr)	ASTM E1251 – 17a
17	CHEMICAL- ORES & MINERALS	Bauxite	Alumina as Al2O3	JNARDDC/QTP/WCL, Issue No. 01 & Issue Date 01.06.2018
18	CHEMICAL- ORES & MINERALS	Bauxite	Alumina as Al2O3	JNARDDC/QTP/XRF Issue No.01 & Issue Date 01.06.2018

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19	CHEMICAL- ORES & MINERALS	Bauxite	Calcium Oxide as CaO	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
20	CHEMICAL- ORES & MINERALS	Bauxite	Calcium Oxide as CaO	JNARDDC/QTP/XRF, Issue No. 01, Issue Date-01.06.2018
21	CHEMICAL- ORES & MINERALS	Bauxite	Gallium as Ga2O3	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
22	CHEMICAL- ORES & MINERALS	Bauxite	Gallium as Ga2O3	JNARDDC/QTP/XRF, Issue No. 01 & Issue Date 01.06.2018
23	CHEMICAL- ORES & MINERALS	Bauxite	Iron Oxide as Fe2O3	JNARDDC/QTP/WCL, Issue No. 01, Issue date: 01.06.2018
24	CHEMICAL- ORES & MINERALS	Bauxite	Iron Oxide as Fe2O3	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
25	CHEMICAL- ORES & MINERALS	Bauxite	Loss of Ignition	JNARDDC/QTP/WCL, Issue no. 01 & Issue date 01.06.2018
26	CHEMICAL- ORES & MINERALS	Bauxite	Phosphorus as P2O5	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
27	CHEMICAL- ORES & MINERALS	Bauxite	Phosphorus as P2O5	JNARDDC/QTP/XRF, Issue No. 01, Issue Date: 01.06.2018
28	CHEMICAL- ORES & MINERALS	Bauxite	Silica as SiO2	JNARDDC/QTP/WCL, Issue no. 01 & Issue date 01.06.2018
29	CHEMICAL- ORES & MINERALS	Bauxite	Silica as SiO2	JNARDDC/QTP/XRF, Issue No. 01, Issue Date: 01.06.2018
30	CHEMICAL- ORES & MINERALS	Bauxite	Titanium as TiO2	JNARDDC/QTP/WCL, Issue no. 01 & Issue date 01.06.2018
31	CHEMICAL- ORES & MINERALS	Bauxite	Titanium as TiO2	JNARDDC/QTP/XRF, Issue No. 01, Issue Date: 01.06.2018
32	CHEMICAL- ORES & MINERALS	Bauxite	Vanadium as V2O5	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
33	CHEMICAL- ORES & MINERALS	Bauxite	Vanadium as V2O5	JNARDDC/QTP/XRF, Issue No. 01 & Issue Date : 01.06.2018
34	CHEMICAL- ORES & MINERALS	Chromite	Aluminium as Al2O3	JNARDDC/QTP/XRF Issue 01, Issue Date 01-06-2018
35	CHEMICAL- ORES & MINERALS	Chromite	Chromium as Cr2O3	JNARDDC/QTP/XRF, Issue 01, Issue date 01-06-2018
36	CHEMICAL- ORES & MINERALS	Chromite	Cobalt	JNARDDC/QTP/ICP Issue 01, Issue date 01-06-2018
37	CHEMICAL- ORES & MINERALS	Chromite	Loss on Ignition	JNARDDC/QTP/WCL, Issue 01, Issue date 01-06-2018

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38	CHEMICAL- ORES & MINERALS	Chromite	Magnesium as MgO	JNARDDC/QTP/XRF Issue 01, Issue date 01-06-2018
39	CHEMICAL- ORES & MINERALS	Chromite	Nickel	JNARDDC/QTP/ICP Issue 01, Issue date 01-06-2018
40	CHEMICAL- ORES & MINERALS	Chromite	Phosphorous	JNARDDC/QTP/ICP, Issue 01 , Issue Date 01-06-2018
41	CHEMICAL- ORES & MINERALS	Chromite	Silicon as SiO2	JNARDDC/QTP/XRF Issue 01, Issue Date 01-06-2018
42	CHEMICAL- ORES & MINERALS	Chromite	Sulphur	JNARDDC/QTP/ICP Issue No. 01, Issue date 01-06-2018
43	CHEMICAL- ORES & MINERALS	Chromite	Sulphur	JNARDDC/QTP/XRF, issue No. 01, Issue Date:- 01.06.2018
44	CHEMICAL- ORES & MINERALS	Chromite	Total Fe	JNARDDC/QTP/XRF, Issue 01, Issue date 01-06-2018
45	CHEMICAL- ORES & MINERALS	Iron Ores	Aluminum Oxide as Al2O3	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
46	CHEMICAL- ORES & MINERALS	Iron Ores	Aluminum Oxide as Al2O3	JNARDDC/QTP/XRF, Issue 01, Issue date 01-06-2018
47	CHEMICAL- ORES & MINERALS	Iron Ores	Calcium Oxide as CaO	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
48	CHEMICAL- ORES & MINERALS	Iron Ores	Calcium Oxide as CaO	JNARDDC/QTP/XRF, Issue 01, Issue date 01-06-2018
49	CHEMICAL- ORES & MINERALS	Iron Ores	Magnesium Oxide as MgO	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
50	CHEMICAL- ORES & MINERALS	Iron Ores	Magnesium Oxide as MgO	JNARDDC/QTP/XRF, Issue 01, Issue date 01-06-2018
51	CHEMICAL- ORES & MINERALS	Iron Ores	Manganese as Mn	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
52	CHEMICAL- ORES & MINERALS	Iron Ores	Phosphorous as P	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
53	CHEMICAL- ORES & MINERALS	Iron Ores	Phosphorous as P	JNARDDC/QTP/XRF, Issue 01, Issue date 01-06-2018
54	CHEMICAL- ORES & MINERALS	Iron Ores	Potassium Oxide as K2O	JNARDDC/QTP/FPM, Issue no. 01 & Issue date 01.06.2018
55	CHEMICAL- ORES & MINERALS	Iron Ores	Silica as SiO2	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
56	CHEMICAL- ORES & MINERALS	Iron Ores	Sodium Oxide as Na2O	JNARDDC/QTP/FPM, Issue no. 01 & Issue date 01.06.2018

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57	CHEMICAL- ORES & MINERALS	Iron Ores	Titanium Oxide as TiO2	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
58	CHEMICAL- ORES & MINERALS	Iron Ores	Titanium Oxide as TiO2	JNARDDC/QTP/XRF, Issue 01, Issue date 01-06-2018
59	CHEMICAL- ORES & MINERALS	Iron Ores	Total Iron as Fe	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
60	CHEMICAL- ORES & MINERALS	Lime stone	Alumina as Al2O3	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
61	CHEMICAL- ORES & MINERALS	Lime stone	Calcium Oxide as CaO	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
62	CHEMICAL- ORES & MINERALS	Lime stone	Iron Oxide as Fe2O3	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
63	CHEMICAL- ORES & MINERALS	Lime stone	Loss on ignition (LOI)	JNARDDC/QTP/WCL, Issue no. 01 & Issue date 01.06.2018
64	CHEMICAL- ORES & MINERALS	Lime stone	Magnesium as MgO	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
65	CHEMICAL- ORES & MINERALS	Lime stone	Phosphorus as P2O5	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
66	CHEMICAL- ORES & MINERALS	Lime stone	Potassium Oxide as K2O	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
67	CHEMICAL- ORES & MINERALS	Lime stone	Silica as SiO2	JNARDDC/QTP/XRF, Issue no. 01 & Issue date 01.06.2018
68	CHEMICAL- ORES & MINERALS	Lime stone	Sodium Oxide as Na2O	JNARDDC/QTP/FPM, Issue no. 01 & Issue date 01.06.2018
69	CHEMICAL- ORES & MINERALS	Lime stone	Titanium	JNARDDC/QTP/ICP, Issue no. 01 & Issue date 01.06.2018
70	CHEMICAL- ORES & MINERALS	Limestone	Phosphorus as P2O5	JNARDDC/QTP/XRF, Issue No. 01, Issue Date: 01.06.2018
71	CHEMICAL- SOLID FUELS	Coal	Ash	IS 1350 (Part -1)
72	CHEMICAL- SOLID FUELS	Coal	Equilibrated Moisture	IS 1350 (Part -1)
73	CHEMICAL- SOLID FUELS	Coal	Fixed Carbon	IS 1350 (Part -1)
74	CHEMICAL- SOLID FUELS	Coal	Gross Calorific Value (GCV)	IS 1350 (Part -2)
75	CHEMICAL- SOLID FUELS	Coal	Moisture	IS 1350 (Part -1)
76	CHEMICAL- SOLID FUELS	Coal	Sulphur	IS 1350 (Part -3)
77	CHEMICAL- SOLID FUELS	Coal	Volatile Matter	IS 1350 (Part -1)

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78	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Bar, Sheets, Strips and Flats	0.2% Proof stress	ASTM A370-21
79	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Bar, Sheets, Strips and Flats	0.2% Proof stress	IS1608-Part1
80	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Percentage Elongation	ASTM A370-21
81	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Percentage Elongation	IS1608-Part1
82	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Rockwell Hardness Testing	ASTM E18-22
83	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Rockwell Hardness Testing	IS 1586 part 1
84	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Ultimate Tensile Strength	ASTMA370-21
85	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Ultimate Tensile Strength	IS1608-Part1
86	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Upper Yield Strength	ASTM A370-21
87	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Bar, Sheet, Strip and Flats	Upper Yield Strength	IS1608-Part1
88	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non Ferrous Metal and Alloys	0.2% Proof Stress	ASTM B557
89	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non ferrous metals and alloys	% Elongation	ASTM B557
90	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non ferrous metals and alloys	0.2% Proof Stress	ASTM E8/E8M-21
91	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non ferrous metals and alloys	Elongation	ASTM E8/E8M-21

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92	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non ferrous metals and alloys	Rockwell Hardness HRBW	ASTM E18-22
93	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non ferrous metals and alloys	Ultimate Tensile Strength (UTS)	ASTM B557
94	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non ferrous metals and alloys	Ultimate Tensile Strength (UTS)	ASTM E8/E8M-21