

# NALCO develops India's first Bauxite Certified Reference Material

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**In news**– National Aluminium Company Limited (NALCO) has successfully developed a Bauxite Certified Reference Material (CRM) naming as BARC B1201 in joint collaboration with BARC.

## What are CRMs?

- Certified reference materials are '**controls' or standards used to check the quality and metrological traceability of products**, to validate analytical measurement methods, or for the calibration of instruments.
- A certified reference material is a particular form of measurement standard.
- **CRMs are blocks of metal that come with certificates indicating the concentration of their various constituent elements** along with their uncertainty levels.
- **Testing laboratories use CRMs to calibrate measuring instruments**, evaluate test procedures and for quality control purposes.

## About India's first CRM-

- This is the **first of its kind CRM in India and 5 th in the World**.
- A method previously developed and validated in the laboratory, using single-step bauxite dissolution and subsequent quantitation was used for homogeneity studies and an inter-laboratory comparison exercise of the CRM.
- **The CRM was certified for nine property values** – Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, MnO, Cr<sub>2</sub>O<sub>3</sub>, MgO and LOI which

are traceable to the international system of units.

### **National Aluminium Company Limited (NALCO)-**

- It is a **government company(Schedule 'A' Navratna CPSE) having integrated and diversified operations in mining, metal and power** under the ownership of the Ministry of Mines, Government of India.
- **It was established on 7th January, 1981 having its registered office at Bhubaneswar.**
- **Presently, the Government of India holds a 51.5% equity in NALCO.**
- **It is one of the largest integrated bauxite–alumina–aluminium–power complex in the country,** encompassing bauxite mining, alumina refining, aluminium smelting and casting, power generation, rail and port operations.
- NALCO is the first Public Sector Company in the country to venture into international market in a big way with London Metal Exchange (LME) registration since May, 1989.
- The Company is listed at Bombay Stock Exchange (BSE) since 1992 and National Stock Exchange (NSE) since 1999.

### **Bhabha Atomic Research Centre (BARC)-**

- It is India's premier nuclear research facility.
- Location: It is headquartered in Trombay, Mumbai.
- It is a multi-disciplinary research centre with extensive infrastructure for advanced research and development covering the entire spectrum of nuclear science, engineering and related areas.
- Mandate: Its core mandate is to sustain peaceful applications of nuclear energy, primarily for power generation.