

Laboratory Chemistry Laboratory, Atomic Minerals Directorate for Exploration & Research (AMD), Department of Atomic Energy, Government of India, A.M.D Complex, S.P. Road, Begumpet, Hyderabad, Telangana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7163 (in lieu of T-3905)

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Validity 22.04.2018 to 21.04.2020

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
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CHEMICAL TESTING

I.	ORES AND MINERALS			
1.	Monazite	Lanthanum (La)	“AMD:CHEM:SOP-20” [H ₂ SO ₄ fuming-NaF-KHF ₂ fusion- ICP-OES technique] Issue 03 dated 15/2/2016	0.01 % to 20 %
		Cerium (Ce)		0.01 % to 40 %
		Praseodymium (Pr)		0.02 % to 10 %
		Neodymium (Nd)		0.01 % to 20 %
		Samarium (Sm)		0.01 % to 10 %
		Europium (Eu)		0.001 % to 1 %
		Gadolinium (Gd)		0.01 % to 5 %
		Terbium (Tb)		0.01 % to 5 %
		Dysprosium (Dy)		0.01 % to 5 %
		Holmium (Ho)		0.001 % to 2 %
		Erbium (Er)		0.001 % to 2 %
		Thulium (Tm)		0.001 % to 1 %
		Ytterbium (Yb)		0.001 % to 1 %
		Lutetium (Lu)		0.001 % to 1 %
		Yttrium (Y)		0.01 % to 10 %
		Thorium (Th)		0.01 % to 20 %
		Phosphorus (P)		0.02 % to 40 %
		Silicon (Si)	“AMD:CHEM:SOP-21” [NaOH fusion- ICP-OES Technique] Issue 01 dated 15.2.2016	0.1 % to 10 %
		Uranium (U)	“AMD:CHEM:SOP-22” [Na ₂ O ₂ fusion- Pellet Fluorimetry Technique] Issue 01 dated 15.2.2016	0.01 % to 10 %
2.	Niobite-Tantalite	Niobium (Nb)	“AMD:CHEM:SOP-23”	1.0 % to 63 %
		Tantalum (Ta)	[Mixed phosphate fusion- ICP-OES technique]	1.0 % to 74 %
		Iron (Fe)		0.1 % to 20 %

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		Manganese (Mn)	Issue 01 dated 15.2.2016	0.1 % to 20 %
		Titanium (Ti)		0.1 % to 10 %
		Tungsten (W)		0.1 % to 10 %
		Tin (Sn)		0.05 % to 20 %
		Zirconium (Zr)		0.05 % to 10 %
		Uranium (U)	"AMD:CHEM:SOP-24" [Mixed phosphate fusion-LED Fluorimetry Technique] Issue 01 dated 15.2.2016	0.01 % to 10 %
II.	SOIL & ROCK			
1.	Rock	Lanthanum (La)	"AMD:CHEM:SOP-33"	10 µg/g to 50000 µg/g
		Cerium (Ce)	[HF-HCl dissolution-sodium peroxide fusion-ICP-OES Technique]	10 µg/g to 50000 µg/g
		Praseodymium (Pr)		10 µg/g to 20000 µg/g
		Neodymium (Nd)		10 µg/g to 50000 µg/g
		Samarium (Sm)	Issue 01 dated 1.11.2017	10 µg/g to 20000 µg/g
		Europium (Eu)		1 µg/g to 100 µg/g
		Yttrium (Y)		10 µg/g to 50000 µg/g
		Uranium (U)		100 µg/g to 50000 µg/g