

10. Reconnaissance Survey (G4) for REE, Ni, Co and PGE in Podili area, Prakasam District, Andhra Pradesh

Implementing Agency: Critical Mineral Trackers

	Features	Details
	Block ID	CMT/NMET/G4-019/2025
	Exploration Agency	CRITICAL TRACKERS MINERALS
	Commodity	REE, Ni, Co, PGE
	Mineral Belt	Prakasam Alkaline Complex
	Budget & Time schedule to complete the project	10 Months
	Objectives	Search for REE, Ni, Co,PGE in Prakasam Alkaline Province
	Whether the work will be carried out by the proposed agency or through outsourcing and details thereof. Components to be outsourced and name of the outsource agency	Major Component of work will be done by CMT. Laboratory analysis work will be outsourced.
	Name/Number of Geoscientists	Two Senior Geologists Two Geologist
	Expected Field days (Geology, Geophysics, Surveyor)	180 Man Days
1.	Location	
	Latitude and Longitude	Latitude - A.15.575, B.15.675, C.15.675, D.15.62, E.15.62, F.15.57, G.15.57, H.15.575 Longitude - A. 79.59, B. 79.59, C. 79.72 , D. 79.72, E. 79.79, F.79.79, G.79.62, H.79.62
	Villages	Podili, Sudanagunta , kuchepalli ,Kothapalli Uppalapadu, Talamalla
	Tehsil/Taluk	Podili & Chimakurthy
	District	Undivided Prakasam district
	State	Andhra Pradesh
2.	Area (hectares/ square kilometers)	

	Block Area	210 Sq.km
	Forest Area	Nill
	Government Land Area	Not Known
	Charagaha	Not Known
	Private Land Area	210 Sq.km
3.	Accessibility	
	Nearest Rail Head	Ongole
	Road	Chimakurthy - Podili Road
	Airport	Gannavaram , Vijayawada.
4.	Hydrography	
	Local Surface Drainage Pattern (Channels)	Dendritic
	Rivers/ Streams	Godivagu & Musi River
5.	Climate	
	Mean Annual Rainfall	366 mm
	Temperature:	20.30°C to 40.20°C
6.	Topography	
	Toposheet Number	57M / 10 & 14
	Morphology of the Area	Undulatory
7.	Availability of baseline geoscience data	
	Geological Map (1:50K/25K)	Available
	Geochemical Map	Available
	Geophysical Map (Aeromagnetic, ground geophysical, Regional as well as local scale GP maps)	Available
8.	Justification for taking up Preliminary Exploration	The block area proposed is Located in the vicinity of the Nellore Schist Belt (NSB) and Eastern Ghat Mobile Belt (EGMB) marginal zone in the undivided Prakasam and Nellore districts of AP and is a part of the Prakasam alkaline province (PAP). In this zone a Number of A-Type of granites are located and exhibit Intrusive relationship with the

		pyroxene granulites , enderbita, charno-enderbite or the granodiorite - adamellite -granite complex. Some of these plutons are Located within this block area and are generally vein like intrusive bodies within the granites and gneisses . The area has nephelene syenites, hornblende syenites, quartz syenites , alkali granite, Monzogranites and Lamprophyres which are petrologically consanguineous to the A-type granites such as albitite and trondjemite. These are having high potential to host the REE mineralisation. Besides these the area has ultrabasic lithoassemblage such as pyroxenite, Gabbro, Noritic gabbro and Anorthosite which have the high potential to host elements like Nickel, Cobalt and PGE. The Podili alkali granite is fluorite bearing with Perthitic K-feldspar, rebeckite - biotite arfvedsonite, astrophyllite, Zircon and titanite and has 8% to 10% Na₂O+K₂O and CaO -0.59 to 0.48 . The REE is generally hosted by alkali rich lithounits. The composition of the lithological assemblage in this block area is likely to host REE, Ni, Co, and PGE Minerals/Elements. Reconnoitry traverses were taken and few bed rock samples of Nephelene Syenite, Hornblende Syenite, alkali granite and Norite Gabbro. The Syenites and alkali granites gave encouraging values for Cerium (179-197.1 ppm), Lanthanum (93.8-104.6 ppm), Neodymium (104.6-115.1 ppm), Europium (8.5-20.12 ppm), Gadolinium (6.6-10.4 ppm), samarium (10.4-16.7), Dysprosium (12-28.6 ppm). Besides these Hafnium values ranged between 7.8-10.5 ppm, Zirconium (189.9-309.9 ppm). The Norite Gabbro sample gave 572.4 ppm Nickel and 56.4 ppm Cobalt. Therefore keeping above information in view this block area is proposed and is worth taking up for G-4 Investigation
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