Exploration Agency: Ecomen Mining Pvt Ltd

General G2 stage Exploration for Bauxite/Aluminous Laterite mineralization in Byndoor Block, Udupi District, Karnataka.

	Feature	**Details**
	Block ID	Byndoor Bauxite/Aluminous Laterite block
	Current Exploration Agency	M/s Ecomen Mining Pvt. Ltd.
	Previous Exploration Agency	Geological Survey of India & DMG, Karnataka
	Previous Stage Geological Exploration Reports	1. Geological Survey of India has carried out systematic geological mapping "Geology of Part of Coondapoor Taluk, South Kanara district, Mysore state". FS:1963-64. 2. The Directorate of Mining & Geology, Karnataka has carried out geological exploration work: Geological studies No - 3 on Bauxite Deposits of Byndoor, Coondapoor Taluk South Kanara district, Mysore state. 3. The Directorate of Mining & Geology, Karnataka has carried out geological exploration work: Geological Studies No-55, Aluminous Laterite Deposits of Paduvari Plateau near Byndoor, Coondapoor Taluk South Kanara district, Mysore state. FS: 1973
	Commodity	Bauxite and Aluminous Laterite
	Mineral Belt	Paduvari Plateau
	Completion period with the entire Time schedule to complete the project	10 Months with review after 4 & 8 months.
	Objectives	Objectives of the proposal are as follows. 1. To carry out General G2 stage mineral exploration as per Mineral (Evidence of Mineral Content) Rule, 2015. 2. To delineate the Mineral continuity and depth persistence of the bauxite and aluminous laterite mineralization within the proposed block. 3. To carry out Geological and Mineralogical studies including estimation of resources as per UNFC norms and to carve out the potential resources within the proposed block.

	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	Geological Mapping, topographical survey, BRS sampling, core logging, core sampling resource modeling and geological report work will be carried out by the M/s Ecomen Mining Pvt. Ltd. Core drilling and chemical analysis will be undertaken through outsourced agencies.
	Name/ Number of Geoscientists	05 Geologists
	Expected field days (Geology) Geological Party days	Geological party days: 120 days
1.	**Location**	
	Latitude	13°52'46.58"N to 13°53'38.33" N
	Longitude	74°37'22.54"E to 74°39'07.59" E
	Villages	Paduvari and Byndoor Villages
	Tehsil/Taluk	Byndoor
	District	Udupi
	State	Karnataka
2.	**Area (hectares/ square kilometers)**	
	Block Area	200.42 Ha / 2.0042 Sq. Km.
	Forest Area	200.42 Ha (Forest and Notified Forest area)
	Government Land Area	Nil
	Private Land Area	Nil
3.	**Accessibility**	
	Nearest Rail Head	Byndoor Railway station - 2.6 Km
	Road	National highway 66 - 0.5 Km
	Airport	Mangalore International Airport- 105 Km
4.	**Hydrogeography**	
	Local Surface Drainage Pattern (Channels)	Proposed block area and the adjacent terrain possess Parallel drainage pattern comprised of seasonal nallahs.
	Rivers/Streams	No perennial river or stream situated in the proposed block area.
5.	**Climate**	
	Mean Annual Rainfall	4535 mm (GoK data 2023-24)
	Temperature (January & December) (Minimum) Temperature (March & April) Maximum	Minimum temperature recorded in the month of December is 18^0C. Maximum temperature recorded in the month of June is 35^0C.
6.	**Topography**	
	Toposheet Number	48K/9 (D43O9)
	Morphology of the Area	Project area forms a flat-topped plateau extending in an East-West direction. The elevation in Project area gradually rises eastwards. The minimum and Maximum Elevation of the project area is 104m to 136m above MSL.
7.	**Availability of baseline geoscience data**	
	Geological Map (1:50K)	Geological map sourced from Bhukosh attached. (refer Plate No. -3)

	Geochemical Map	Stream sediment sampling data obtained from Bhukosh portal shows the assay value of 23.45% Al2O3 within the proposed block. (refer Plate No.-4)
	Geophysical Map (Aerogeophysical, Ground geophysical, Regional as well as local scale GP maps)	Not available
8.	**Justification for taking up G2 stage mineral exploration**	1. The proposed Block for General G2 stage Exploration lies in the Bauxite bearing plateau of the coastal belt of Karnataka lying between western ghats and the Arabian Sea which shows the vast spreads of both Alumina and Ferruginous Rich Laterite of variable depth. 2. The Preliminary investigations over parts of the proposed block were carried out by the Karnataka State Department of Mines and Geology (DMG) during the 1970s. However, due to the absence of precise location data related to the earlier exploratory work, it is not possible to correlate or interpret the data in the context of the current proposed block. Therefore, the area is now being proposed for reassessment through General G-2 stage exploration. *3.* **According to DMG Geological Study Report No. 3 titled *"Bauxite Deposits of Baindur, South Canara District, Mysore State,"* preliminary investigations identified the presence of two distinct bauxite patches over the part areas of proposed Block**: • Patch A: Covering approximately 90 acres, located to the west of the National Highway, with an average grade of Al_2O_3 – 44.36% and SiO_2 – 7.67%. • Patch B: Covering approximately 242 acres, situated to the east of the National Highway, with an average grade of Al_2O_3 – 46.24% and SiO_2 – 4.74%. The exploration activities included approximately 436 drill holes, each 4 feet deep, conducted at 330 feet grid intervals, along with 23 trial pits

		ranging from 8 to 16 feet deep at 1000 feet grid intervals. The preliminary exploration results suggest a lateral extension of the bauxite deposit across an estimated 330 acres, with an Al_2O_3 grade range between 45% and 55%. A copy of the report is enclosed as **Annexure-1**. 4. **DMG Geological Study Report No. 55, titled "Aluminous Laterite Deposits of Paduvare Plateau, near Byndoor, Coondapur Taluk, South Kanara District, Mysore State (1973)," was authored by B.L. Rajashekharaiah.** As part of preliminary prospecting to delineate bauxite mineralization, the Department of Mines and Geology undertook the following activities: • Trial drill holes up to a depth of 4 feet only were executed at 330-feet intervals, with the highest reported Al_2O_3 content being 55.50%. • A total of 36 trial pits, ranging from 8 to 12 feet in depth, were sunk at 1000-feet grid intervals, out of which 29 pits yielded positive results. • Core drilling was conducted through 27 boreholes, each to a depth of approximately 20 feet. • Two exploratory mining pits were opened, each measuring 20 feet in length, 10 feet in width, and 18 feet in depth, located approximately 1.5 furlongs west and 2 furlongs east of the Coastal Highway. The results from this preliminary exploration indicate an Al_2O_3 grade range between 41.40% and 48.93%. A copy of the report is enclosed as **Annexure-2**. 5. The Geological Survey of India (GSI), in its report titled *"Geology of Part of Coondapoor Taluk, South Kanara*

District, Mysore State" (FS: 1963–64), recommended that the lateritic terrain be systematically prospected to identify sizable patches of aluminous laterite, particularly in the area east of the road from Byndoor to Bhatkal, within the Byndoor Forest Reserve.

As part of this study, prospecting pits were excavated in the Paduvare Plateau area to assess the presence and depth-wise continuity of bauxite mineralization.

Representative samples collected from bauxite-rich zones within these pits were analyzed, and the results are as follows:

Pit-ID	**Al2O3**	**Fe2O3**	**SiO2**	**TiO2**
B-4	46.06	19.17	3.92	2.75
B-8	47.02	15.85	3.34	2.75
B-10	49.51	14.67	1.02	2.5
B-6	53.16	11.49	1.08	2.5
B-9	38.52	23.16	4.32	3.0

6. Bauxite/Aluminous Laterite samples collected by NPEA M/s Ecomen Mining Pvt. Ltd. from the proposed Block showing encouraging results of high Alumina (Al2O3) in the range of 37.07-42.61%.

7. The Old working pits of about 5m depth which is located in the western part of the Proposed Block shows good exposure of Bauxite, this illustrated that, the area is very much potential for bauxite mineralization. Hence, the General exploration of General G2 stage in the proposed area to be taken up to ascertain the exact potentiality of the prospect for Bauxite and Aluminous laterite and execution of Exploration program which in turn will facilitate the state govt. for auctioning the Block as Mining Lease.