सत्यमेव जयते

राजस्थान राजपत्र विशेषांक	RAJASTHAN GAZETTE Extraordinary
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भाग 4 (ग)

उप-खण्ड (I)

राज्य सरकार तथा अन्य राज्य-प्राधिकारियों द्वारा जारी किये गये (सामान्य आदेशों, उप-विधियों आदि को सम्मिलित करते हुए) सामान्य कानूनी नियम।

Mines and Petroleum (Gr-II) Department

Notification

Jaipur, March 04, 2024

G.S.R.188 .-In exercise of power conferred under Section 10BA(4) of Mines and Mineral (Development and Regulation) Act, 1957 (as amended from time to time), the State Government hereby notifies the following mineral blocks for the grant of Exploration Licence as per the provisions of the Mineral Auction Rules, 2015 (as amended from time to time).

1- Sarasar-Pallu-Dhandhusar Hardaswali Block in District-Hanumangarh, Shri Ganganagar, Churu & Bikaner, for Potash Mineralization

Total Area of the Block-935,53 Sq.Km
Area free for grant of exploration licence - 906.5510 Sq.Km

Pillar no.	Latitude	Longitude
A	29º09'4.84"	74º07'18.22"
B	29º05'55.41"	74º21'17.70"
C	28º45'9.36"	74º14'20.04"
D	28º49'00.12"	74º00'11.52"
Total Block area- 935.53 Sq. Km.		

The above exploration license block also includes Jaitpur block whose details are as follows:-

Pillar no.	Latitude	Longitude
A	28º56'23.6709"	74º03'36.1596"
B	28º55'25.0293"	74º05' 22.5410"
C	28º53'49.5818"	74º04' 43.0473"
D	28º52'18.3181"	74º04' 14.0713"
E	28º51'59.5923"	74º03' 12.5862"
F	28º52'29.5578"	74º02' 06.2997"
G	28º54'58.3192"	74º02' 08.6908"
Total Jaitpur Block area- 29.115 Sq. Km.		

The area of Jaitpur block which is conflicting with the exploration licence block – 28.9490 Sq.km
The exploration licence of this block shall be granted excluding the area overlapping with Jaitpur block i.e. 28.9490 Sq.Km. Therefore, the area free for grant of exploration licence is 906.5510 Sq.Km

2- Chaba-Nawatala-Patodi Block District – Barmer & Jodhpur (Raj), for REE Mineralization, Area – 574 Sq.Km

Pillar no.	Latitude	Longitude
A	26º18’37.86”	72º03’42.87”
B	26º24’05.54”	72º10’4.20”
C	26º10’48.89”	72º25’28.93”
D	26º04’12.96”	72º17’45.13”

3- Renwal-Raithal-Kaladera Block District – Jaipur, Sikar & Nagaur, for REE & RM Mineralization

Total Area of the Block- 795.088 Sq.Km
Area free for grant of exploration licence - 789.4044 Sq.Km

Pillar no.	Latitude	Longitude
A	27º18’15.27”	75º25’36.31”
B	27º07’45.65”	75º41’47.57”
C	26º57’27.63”	75º32’52.19”
D	27º08’43.25”	75º16’22.57”
Total Block Area – 795.088 Sq.Km		

The above exploration license block also includes area falling in Aravalli whose details are as follows:-

Pillar no.	Latitude	Longitude
I	27º01’07.31758”	75º36’02.25676”
II	27º00’41.38333”	75º35’39.80485”
III	27º59’41.70322”	75º33’23.31573”
IV	27º00’03.68064”	75º33’08.22064”
V	27º01’09.20121”	75º35’07.96238”
VI	27º01’07.31758”	75º36’02.25676”
Area falls in Aravalli – 4.5652 sq. km.		

The above exploration license block also includes three areas (Block 1, Block 2 and Block 3) of minor mineral leases whose details are as follows:-

Block-1 (near village Dadar-Naradpura)

Pillar no.	Latitude	Longitude
I	27º04’41.18958”	75º38’58.44281”
II	27º04’07.49053”	75º38’13.69691”
III	27º04’13.52992”	75º38’08.02056”
IV	27º04’48.60612”	75º38’50.25801”
V	27º04’41.18958”	75º38’58.44281”
Block-1 area – 0.4499 sq. km.		

Block-2 (near village Dungri)

Pillar no.	Latitude	Longitude
I	27º10’21.99110”	75º28’52.90748”
II	27º10’01.76214”	75º29’13.19253”
III	27º09’55.03694”	75º29’04.12049”
IV	27º10’15.81362”	75º28’44.16236”
V	27º10’21.99110”	75º28’52.90748”
Block-2 area – 0.2645 sq. km.		

Block-3 (near village Kalwad)

Pillar no.	Latitude	Longitude
I	26º59’04.89260”	75º34’16.30581”
II	26º59’0.83507”	75º34’12.79575”
III	26º59’09.57209”	75º33’57.54204”
IV	26º58’57.71687”	75º33’25.41866”
V	26º59’02.13083”	75º33’23.67418”
VI	26º59’15.63830”	75º33’52.01627”
VII	26º59’04.89260”	75º34’16.30581”
Block-3 area – 0.2500 sq. km.		

The above exploration license block also includes Area of minor mineral leases under court case whose details are as follows:-

ML Area under Court Case (near village Badi Dungri)

Pillar no.	Latitude	Longitude
I	27º08’56.36958”	75º27’44.11066”
II	27º08’34.98839”	75º27’44.35457”
III	27º08’35.08998”	75º27’35.63251”
IV	27º08’56.16107”	75º27’35.69654”
V	27º08’56.36958”	75º27’44.11066”
Block area under court case – 0.1540 sq. km.		

The total overlapping area – 5.6836 Sq.Km

The exploration licence of this block shall be granted excluding the area overlapping i.e. 5.6836 Sq.Km. Therefore, the area free for grant of exploration licence is 789.4044 Sq.Km

[No.F.3(31)Mines/Group-2/2015-Part5]
By Order of the Governor,

Ashu Chaudhary,
Joint Secretary to Government.

Government Central Press, Jaipur.

Proposal - 1

Proposal for Exploration License (EL) on REE

I. Introduction:

A reconnaissance survey for search of REE, Basemetal and associated rare metals in and around Chaba, Nawatala and Patodi areas, Barmer and Jodhpur districts, Rajasthan having an area of 611 Sq km is being proposed under the Exploration License. The proposed area lies in the western part of Rajasthan and major part of the area is covered by undifferentiated aeolian and fluvial sands of Thar Desert of Quaternary age. Sporadic outcrop of Marwar Supergroup and Malani Igneous Suites (MIS) has been exposed in southeastern part of the area (Plate-1 & 2). The rocks of Malani Igneous suits comprising mainly rhyolite and tuffs are suitable for search of REE, Nb, Hf, Sn, W and basemetal mineralisation.

II. Block Name: Chaba- Nawatala- Patodi Block

III. Mineral Commodity of the block: REE, Nb, Hf, Sn, W and Basemetals

IV. State: Rajasthan

V. District: Barmer and Jodhpur

VI. SOI Toposheet (s) No.: 45 B/03, 04, 07 & 08

VII. Accessibility: The study area is very well accessible through road and rail network connectivity. The northern part of the area connected with Jodhpur city through road network by National Highway (NH-125) and subsidiary State road and others road. The Jodhpur and Barmer city is connected with National Highway (NH-25).

VIII. Area (Sq. km): 611 sq.km

IX. Boundary coordinates of the block (in DMS):

Point	Latitude	Longitude
A	26°18'37.86"N	72°03'42.87"E
B	26°24'05.54"N	72°10'04.20"E
C	26°10'48.89"N	72°25'28.93"E
D	26°04'12.96"N	72°17'45.13"E

X. Regional Geology of the Block: Major part of the area is covered by thick pile of undifferentiated aeolian and fluvial sands of Quaternary age. Sporadic outcrop of Marwar Super Group and Malani Igneous Suites (MIS) has been exposed in southeastern part of the area. Malani Igneous Suites of the rock are represented by amygdaloidal basalt, followed by rhyolite, rhyolite porphyry, and tuffs. The initial igneous activity started with major felsic and minor mafic flows and was followed by the emplacement of granitic bodies. The final phase of igneous activity is represented by felsic and mafic dykes (Bhushan, 2000; Torsvik et al., 2001a; Gregory et al., 2009; Meert et al., 2013). The Marwar Supergroup is unconformably overlies the MIS. The Marwar Supergroup is composed of un-metamorphosed and relatively un-deformed succession of sandstones, shales, carbonates, and evaporites. Litho-stratigraphically, the sediments are divided into three Groups. The oldest is Jodhpur Group comprising Sonia sandstone and shale, which are unconformably overlies the Neoproterozoic Malani Igneous Suite. The middle unit is represented by Bilara Group consists of dolomitic and stromatalitic limestone that conformably overlie the Jodhpur Group (Khilnani, 1968; Barman, 1987; Pandit et al., 2001). The youngest Group is Nagaur Group consist a sequence of fine to coarse grained, cross-bedded, reddish brown, sandstone and siltstone (Pandey and Bahadur, 2009.)

XI. Lithostratigraphy:

Litho -stratigraphy of Trans-Aravalli region (after Bhushan, 2000)

Group/Supergroup	Age	Rock Types
MarwarSupergroup (Jodhpur Group)	Vendian to Lower Cambrian	Maroon and golden sandstone, siltstone and shale
.....Unconformity.....		
Pokharan Boulder Bed	Vendian	Scattered boulders and pebbles of glacial origin
.....Unconformity.....		
Malani Igneous Suite	Neo-Proterozoic	Bimodal volcanics, granites and dyke swarm
.....Unconformity.....		
Delhi Supergroup (Basement)	Meso- to Neo-Proterozoic	Abu and Erinpura Granite; Metasediments of Sirohi and Pali area.Unspecified gneisses of Balewa-Harsani area; (ArchaeanSupracrustals?)

XII. Structural Details:

As most of the area is sand cover so detail structural study is not available. Flow layering, vesicular, amygdaloidal and columnar structures are well preserved in rhyolitic flows of Malani Igneous Suites exposed in the block. The Marwar Supergroup of rocks preserved sedimentary structure such as bedding, cross bedding, ripple marks etc.

XIII. Baseline Dataset available (NGCM/NGPM/NAGMP):

The area is not covered under NGCM, thus, NGCM data area not available. However, NGPM and NAGMP data are available for proposed block.

XIV. Exploration details available in EL Block:

No detailed exploration so far has been carried out in the proposed area, however the area was covered under an RMT project.

XV. Proposed Potentiality of EL block:

The proposed area for EL block in and around Chaba, Nawatala and Patoli areas, Barmer and Jodhpur districts, Rajasthan is close to Siwana Ring Complex with similar geological setup. Aeromagnetic map of the proposed area is showing NW-SE (southeastern part of the block) and N-S (in the central portion of the block) trending two high magnetic linears. These high magnetic anomalies very well corroborated with trends of Sankara dyke. Moderate magnetic bipolar anomaly has been observed in the proposed block at places. Similar aeromagnetic responses have been also observed from the nearby Siwana Ring Complex, which is well known for its REE and Nb, Hf and Sn potential. GSI and AMD have carried out G4 and G3 stage exploration Items for REE and Nb, Hf and Sn in Siwana Ring Complex. However, no detailed exploration work in the proposed area for EL has been carried out and area is not mapped on 1:25,000 scale by GSI, owing to the scattered occurrences of outcrops and the area being covered by Thar Desert.

The proposed area for EL is covered by GSI under the RMT project. The results of chemical analysis of bed rock samples collected from nearby area during FS 2020-23 under RMT-II project (report is under progress) shows encouraging values of total REE up to 1258 ppm followed by encouraging maximum value of rare metals such as Nb 169 ppm, Hf 93 ppm, Y 289 ppm, Zr 1700 ppm, Sr 1724ppm , Ba 1226ppm, Sn 54 ppm and W 33 ppm. Ground water samples show encouraging values of total REE (La+Ce) up to 0.35 ppb followed by encouraging maximum value of rare metals such as Cu 82 ppb, Zn 1069 ppb,

and Mo 17ppb (Plate-2). These analysis are probably indicating the area might be potential for the REE, Basemetals and Associated rare metals.

Based on the encouraging value of REE (La+Ce) 10.49 ppb, Nb 0.2 ppb and Sn 6.28 ppb in a water sample, a scout borehole RJRMTM-4 was drilled in the NW of Patodi (Plate-2) under the RMT project. The borehole has intersected sand upto 104.55m, followed by sandstone and thin band of conglomerate up to depth of 146.20 m and from 146.20 m to 300 m it has interested variants of rhyolite. The borehole has intersected potential rock type i.e. rhyolite and core sample of rhyolite analyzed maximum total ∑REE+Y up to 450 ppm.

Based on the above background the proposed area for EL is suitable for reconnaissance operations to identify and delineate prospecting REE mineralization, associated rare metals, basemetals and their relation to the regional and deeper structures.

XVI. Bibliography

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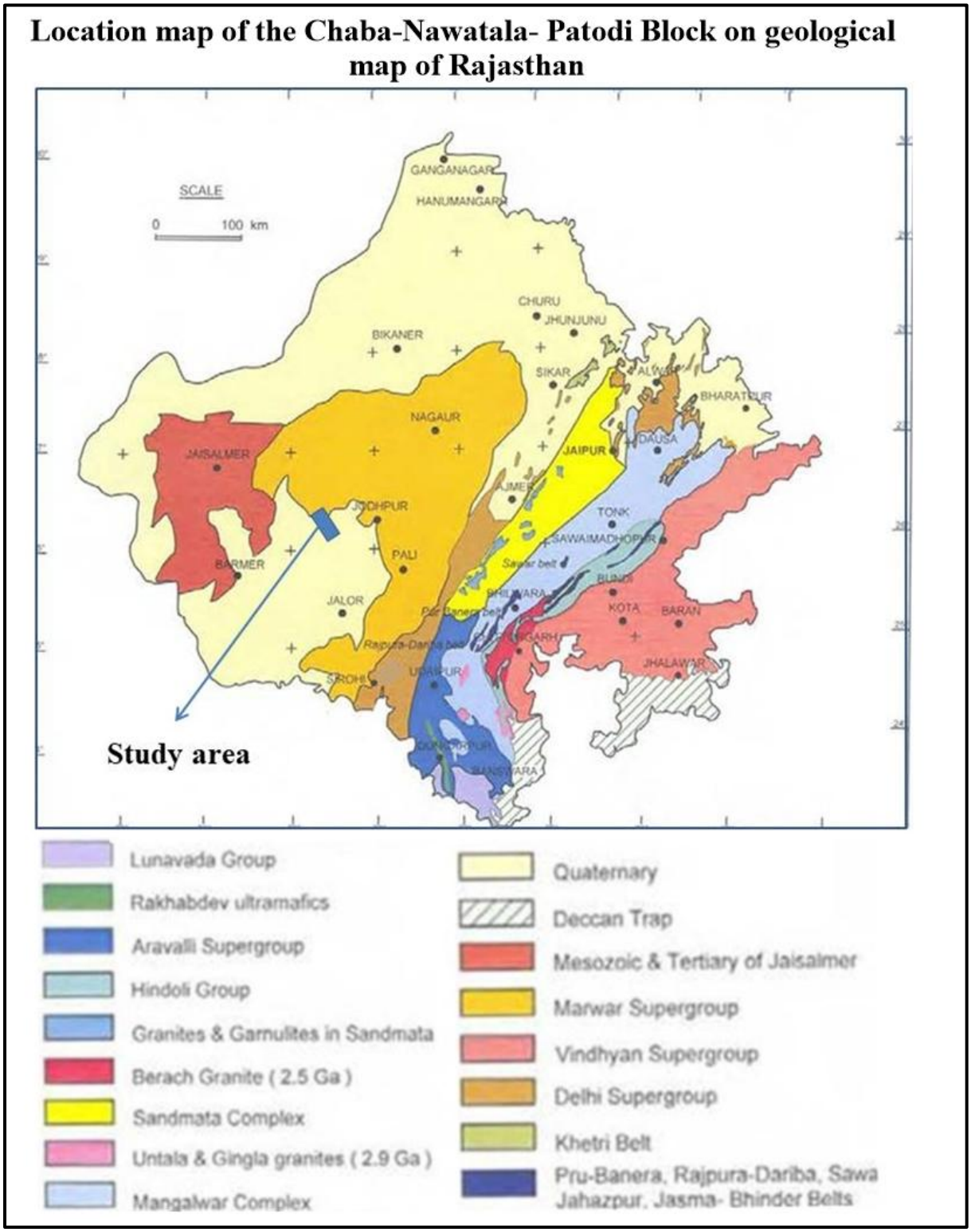
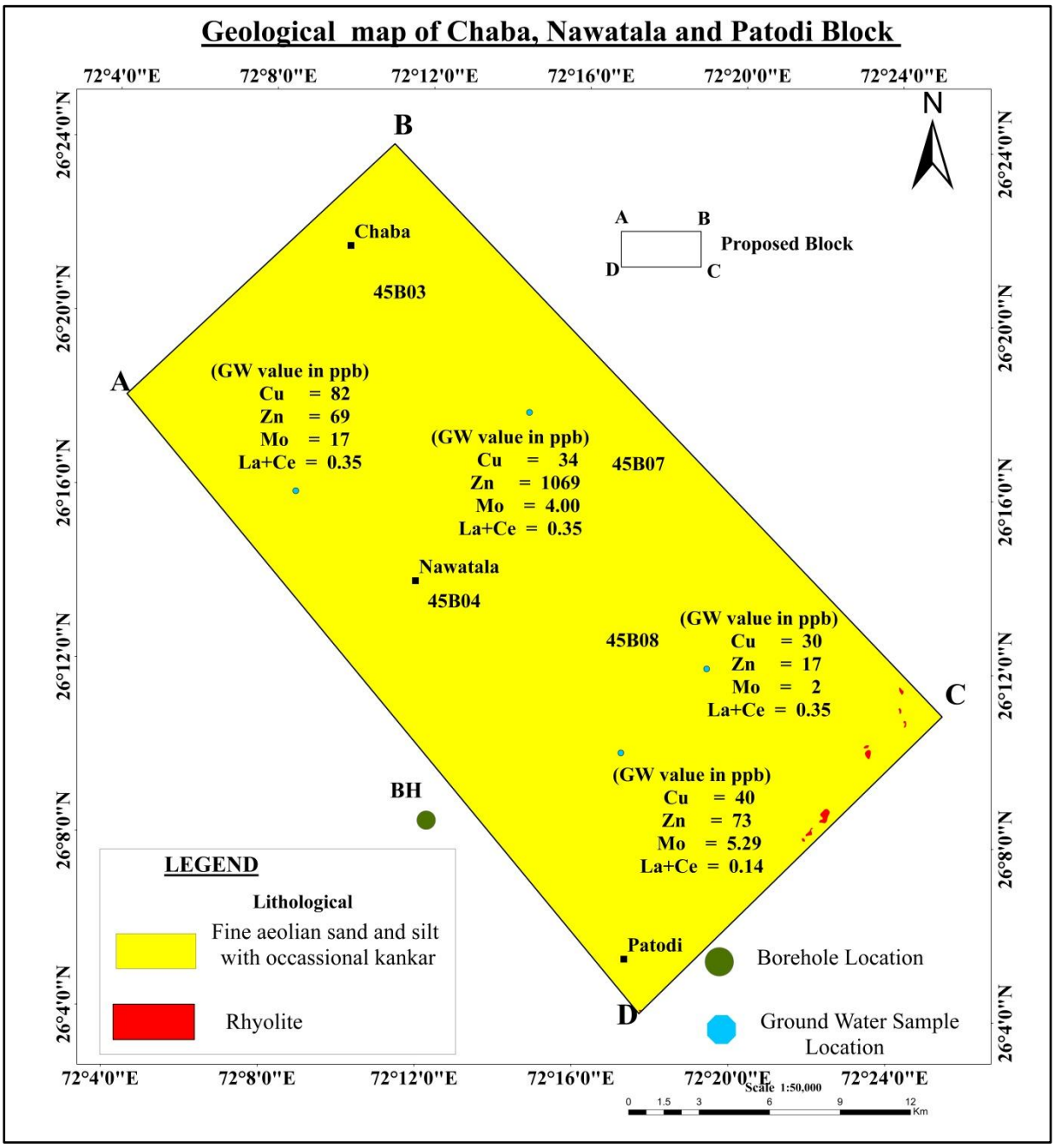
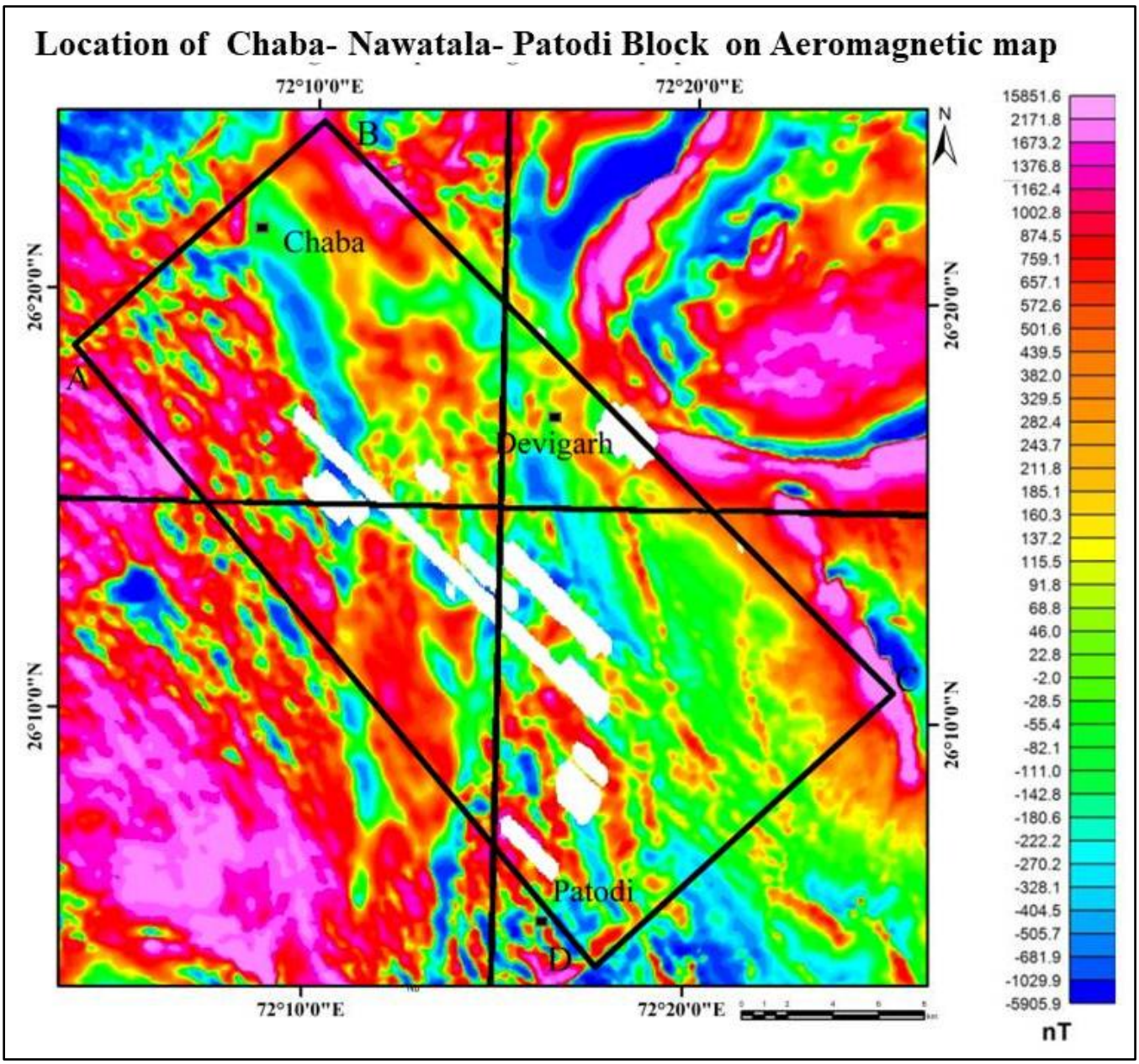
I. Location Map



III. Geological map



III. NAGMP

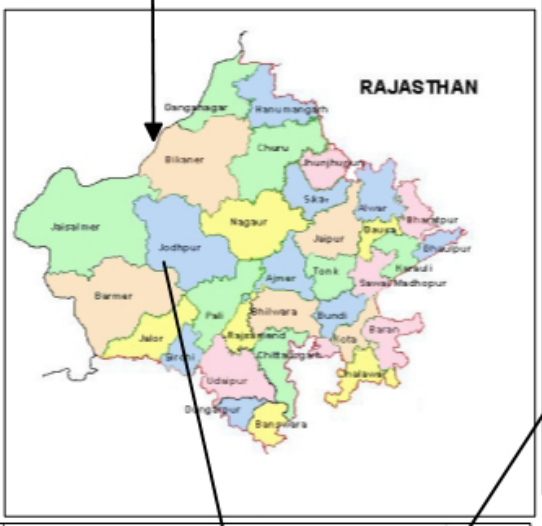

Location of Chaba- Nawatala- Patodi Block on Aeromagnetic map
72°10'0"E
72°20'0"E
26°20'0"N
26°10'0"N
N
A
B
C
D
Chaba
Devigarh
Patodi
15851.6
2171.8
1673.2
1376.8
1162.4
1002.8
874.5
759.1
657.1
572.6
501.6
439.5
382.0
329.5
282.4
243.7
211.8
185.1
160.3
137.2
115.5
91.8
68.8
46.0
22.8
-2.0
-28.5
-55.4
-82.1
-111.0
-142.8
-180.6
-222.2
-270.2
-328.1
-404.5
-505.7
-681.9
-1029.9
-5905.9
nT

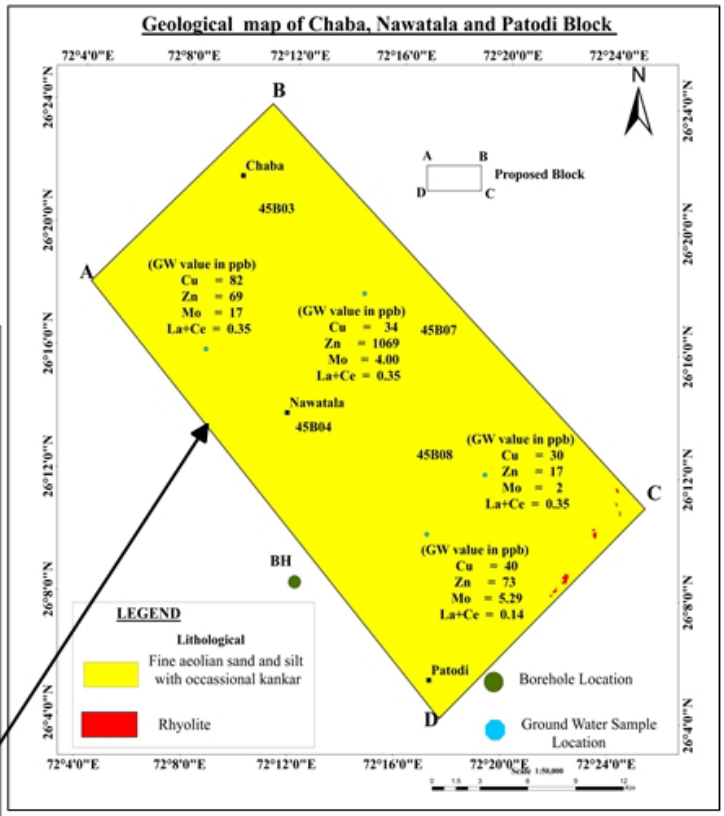
RARE EARTH ELEMENT EXPLORATION LICENSE BLOCK

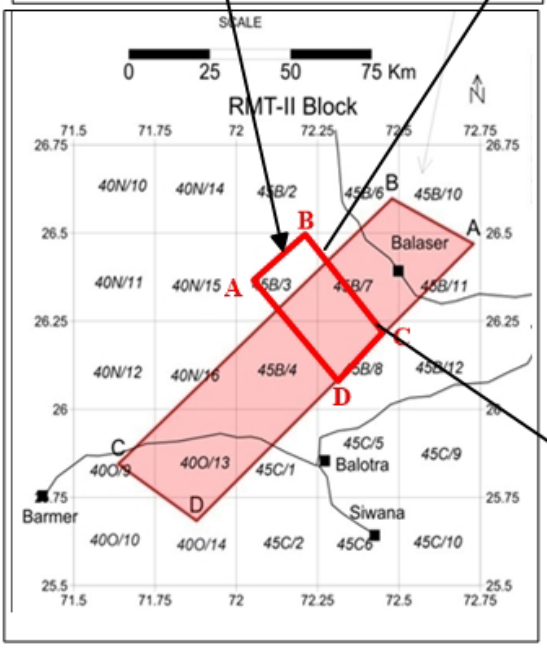
GENERAL INFORMATION	
Block Name	Reconnaissance survey for search of Rare earth element in and around Chaba, Nawatala and Patodi block Jodhpur and Barmer districts of Rajasthan.
License type	Exploration license (EL).
Mineral	REE and RM
Location	Chaba, Nawatala and Patodi block Jodhpur and Barmer districts of Rajasthan.
Area	574 Sq.km
Exploration level	Reconnaissance
Morphology of the area	The block is located in the SOI toposheet number 45B/3, 4, 7 & 8 and lies in the western part of Rajasthan. The area is covered by sands of Thar Desert and sporadic outcrop of Malani Igneous Suites.The major part of the area presents a monotonous dunal topography characterized by NW-SE trending sand dunes, ridges and interdunal areas.

LOCATION DETAILS	
Districts	Jodhpur and Barmer
Toposheet numbers	45 B/03,04, 07 & 08
Connectivity	
Rail	Jodhpur and Barmer rail network
Road	The study area is very well accessible through road.The northern part of the area connected with Jodhpur city through road network by National Highway (NH-125)) and subsidiary State road and others road. The Jodhpur and Barmer city is connected with National Highway (NH-25).
Airport	Jodhpur airport, Rajasthan.

LOCATION OF EXPLORATION LICENCE BLOCK OF RARE EARTH ELEMENT INVESTIGATION IN RAJASTHAN,INDIA

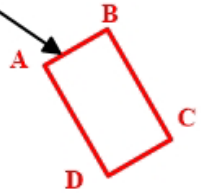






Coordinates of composite license block

Corner Point	Latitude (DMS)	Longitude (DMS)
A	26°18'37.86"N	72°03'42.87"E
B	26°24'05.54"N	72°10'04.20"E
C	26°10'48.89"N	72°25'28.93"E
D	26°04'12.96"N	72°17'45.13"E
Area= 574 Sq. Km		



Exploration Block

A. Particulars of Statutory Licenses, Permits, Permissions, Concessions, Approvals and Consents Related to Mining Operations

- **All clearances, consents, approvals, permit, no objection certificates and the like as may be required under applicable laws for commencement of reconnaissance or prospecting operations or both are to be obtained by the preferred bidder.**

B. Particulars of Land

- **As per annexed notification**