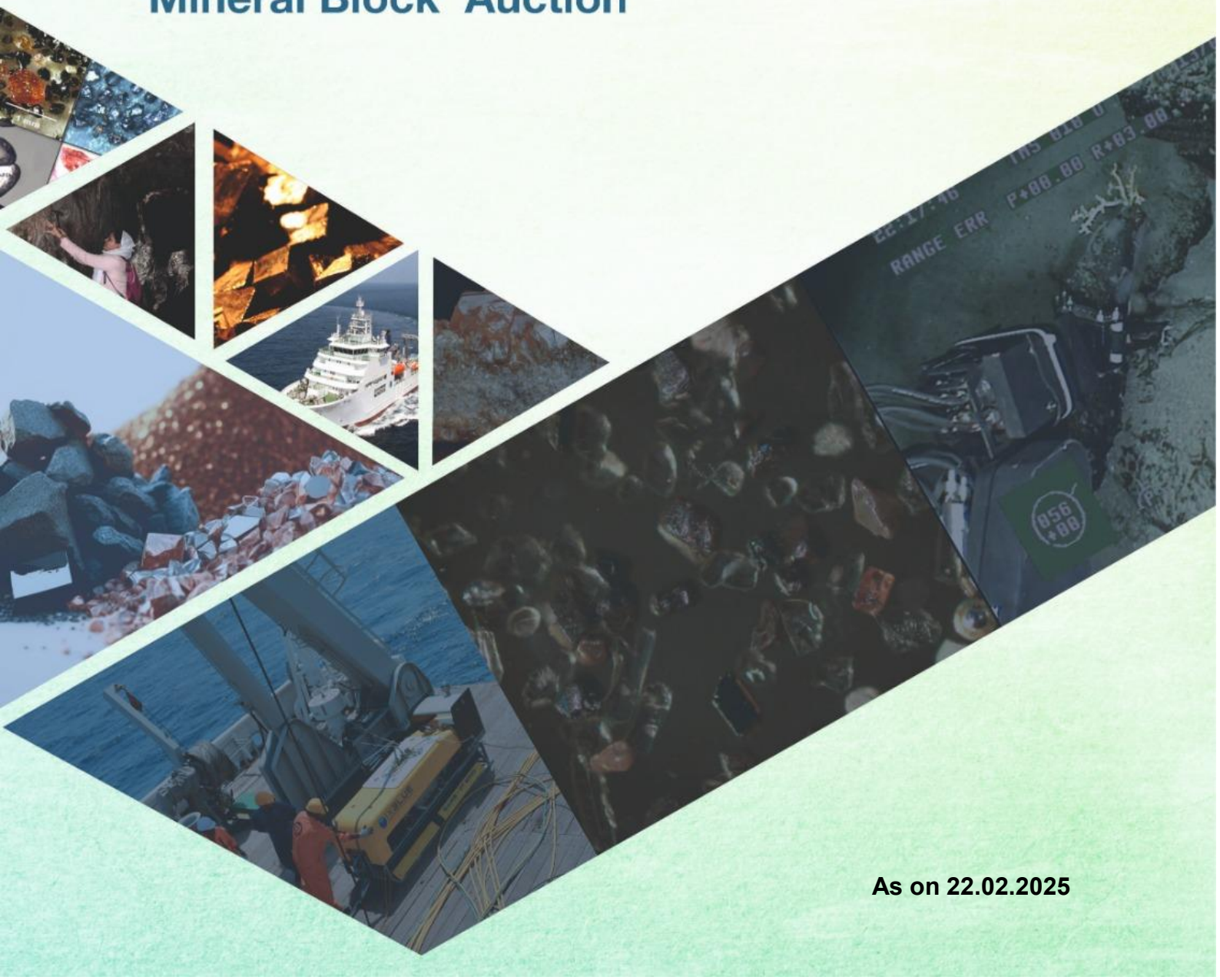
खान मंत्रालय
MINISTRY OF
MINES

सत्यमेव जयते

UNLOCKING INDIA'S MINERAL WEALTH:

Information Brochure On Offshore And Onshore Mineral Block Auction



As on 22.02.2025

Disclaimer

This booklet is for informational purposes only and is based on mineral block summaries uploaded on the MSTC e-auction portal as of 22 February 2025. The availability, status, and details of mineral blocks may change as State Governments and the Ministry of Mines launch new auctions or update information. Readers are advised to refer to the MSTC e-auction portal for the latest details. In case of any discrepancy, the information published on the MSTC e-auction portal shall prevail. The authors assume no liability for reliance on this booklet.

Contents

Introduction

India is a mineral-rich country with a diverse range of mineral deposits, including Bauxite, Chromite, Iron Ore, Limestone, Manganese, and precious metals. The country's vast mineral wealth plays a crucial role in its industrial and economic development.

In addition to these traditional minerals, India has notified 24 minerals as Critical & Strategic minerals essential for the country's self-reliance, energy transition, and technological advancement. These minerals include Beryllium, Boron, Chromium, Cobalt, Fluorspar, Glauconite, Graphite, Helium, Lithium, Magnesium, Molybdenum, Nickel, Niobium, Phosphate, Platinum Group Elements (PGEs), Potash, Rare Earth Elements (REEs), Strontium, Tantalum, Tin, Titanium, Tungsten, Vanadium, Zirconium. These Critical & Strategic minerals crucial for various high-tech applications, including electronics, renewable energy technologies, and advanced manufacturing.

Furthermore, India's offshore areas hold significant recoverable mineral resources within its Exclusive Economic Zone (EEZ) of approximately 2.3 million square kilometers. Offshore mineral reserves include gold, diamond, copper, nickel, cobalt, manganese, and rare earth elements. Geological Survey of India has delineated resources such as polymetallic ferromanganese nodules and crusts in the Andaman Sea and Lakshadweep Sea, as well as heavy mineral placers off the coasts of Odisha, Andhra Pradesh, Kerala, Tamil Nadu, and Maharashtra.

Mineral Concessions for in-land exploration & mining in India

To harness the mineral potential in the country, the Government of India has implemented a transparent and efficient mineral auction regime. Grant of mineral concessions is governed by the Mines and Minerals (Development and Regulation) Act, 1957 ("MMDR Act") and rules & regulations made thereunder, which are amended from time to time. Mineral (Auction) Rules, 2015 prescribe the procedural specifications of the e-auction process to be followed by the Central Government and State Governments for allocation of mineral blocks by way of e-auction.

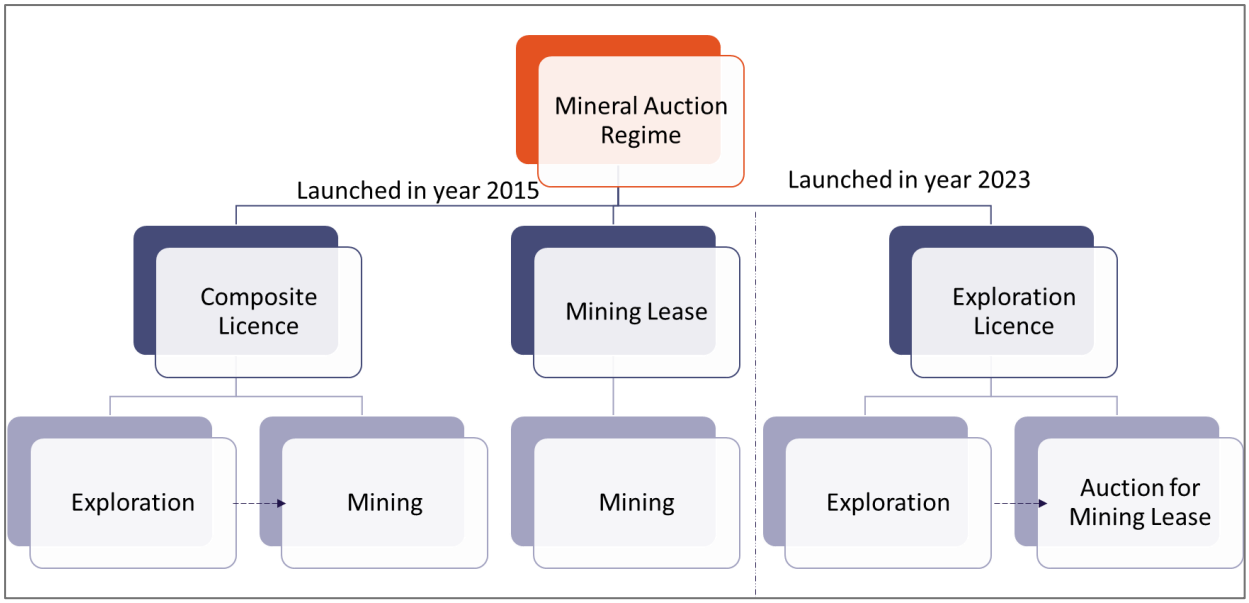


Figure 1: Type of Mineral Concessions in India

In India, three types of mineral concessions are granted under the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act): Composite Licence, Minings Lease, and Exploration Licence.

a. **Composite Licence (CL):** This licence requires the holder to undertake prospecting and exploration activities within a stipulated timeline, not exceeding five years. If the exploration results establish the mining potential of the block, the licence holder may apply for a Mining Lease for the area or part thereof, which will be granted for a period of 50 years.

b. **Mining Lease (ML):** The Mining Lease grants the holder the right to undertake mining operations in the specified area for a period of 50 years. This concession is aimed at facilitating long-term mining projects and ensuring the sustainable extraction of mineral resources.

c. **Exploration Licence (EL):** This licence allows the holder to conduct reconnaissance and prospecting operations in the designated area. Upon completion of exploration, the blocks are handed over to the government, which then conducts an auction for the Mining Lease. The Exploration Licence holder is entitled to a share of the revenue generated from mining activities in the blocks they explored.

These concessions are designed to promote systematic and scientific mining practices, ensuring the optimal utilization of mineral resources while adhering to environmental and regulatory standards.

The Mineral (Auction) Rules, 2015, outline the auction process for granting Composite Licences (CL), Mining Leases (ML), and Exploration Licences (EL). For CL and ML, a two-stage forward ascending auction is prescribed, where the bidding parameter is the percentage of the value of minerals dispatched from mines to be shared with the State Government, known as the auction premium. In contrast, for EL, a two-stage reverse descending e-auction is prescribed, with the bidding parameter being the percentage of the auction premium payable by the future ML holder to the State Government.

According to Section 5 of the MMDR Act, only Indian citizens or companies registered under the Companies Act, 2013, are permitted to participate in the e-auction process. The process

of company registration in India is streamlined, efficient, and well-established. Interested parties can complete the registration process through the Ministry of Corporate Affairs' website at the link: https://www.mca.gov.in/MinistryV2/incorporation_company.html .

Operating Rights for exploration & mining in offshore areas in India

The exploration and mining operations in the offshore areas of India are governed by Offshore Areas Mineral (Development and Regulation) Act, 2002 (OAMDR Act) which is amended time to time. OAMDR Amendment Act 2023 introduced the provision of e-auction for grant of operating rights in the offshore areas. There are two types of operating rights granted in offshore areas, namely Production Lease which confers an exclusive right to undertake production operation, and Composite Licence, which is exploration licence-cum-production-lease, which is a two stage operating right granted for the purpose of undertaking exploration operation followed by production operation. The e-auction process for grant of Production Licence & Composite Licence is prescribed in Offshore Areas Mineral (Auction) Rules, 2024.

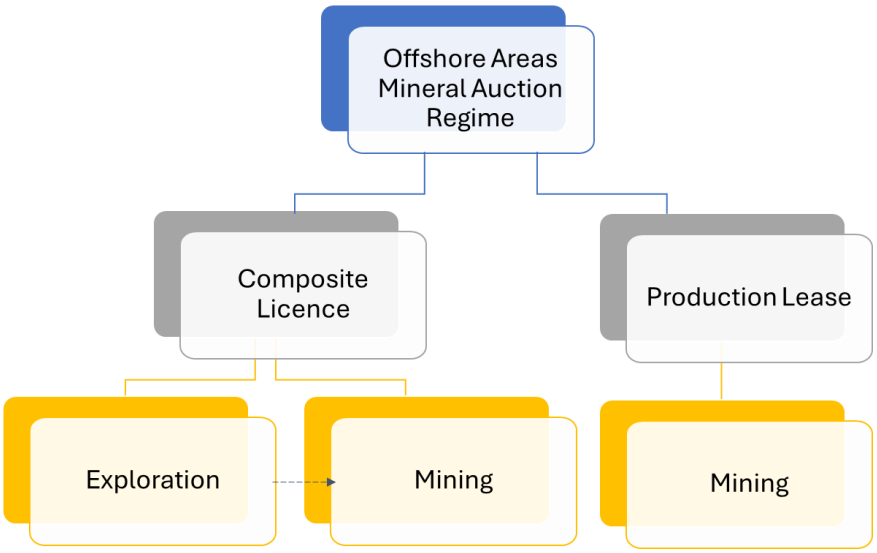


Figure 2: Type of Operating Rights in Offshore Areas

To participate in the auction process for grant of mineral concessions/operating rights, the bidders are required to fulfil certain eligibility criteria. These criteria are specified in MMDR Act & Mineral (Auction) Rules, 2015 in respect of in-land mineral concessions; and in OAMDR Act & Offshore Areas Mineral (Auction) Rules, 2024 in respect of offshore areas operating rights. Such eligibility criteria are illustrated in the figure below:

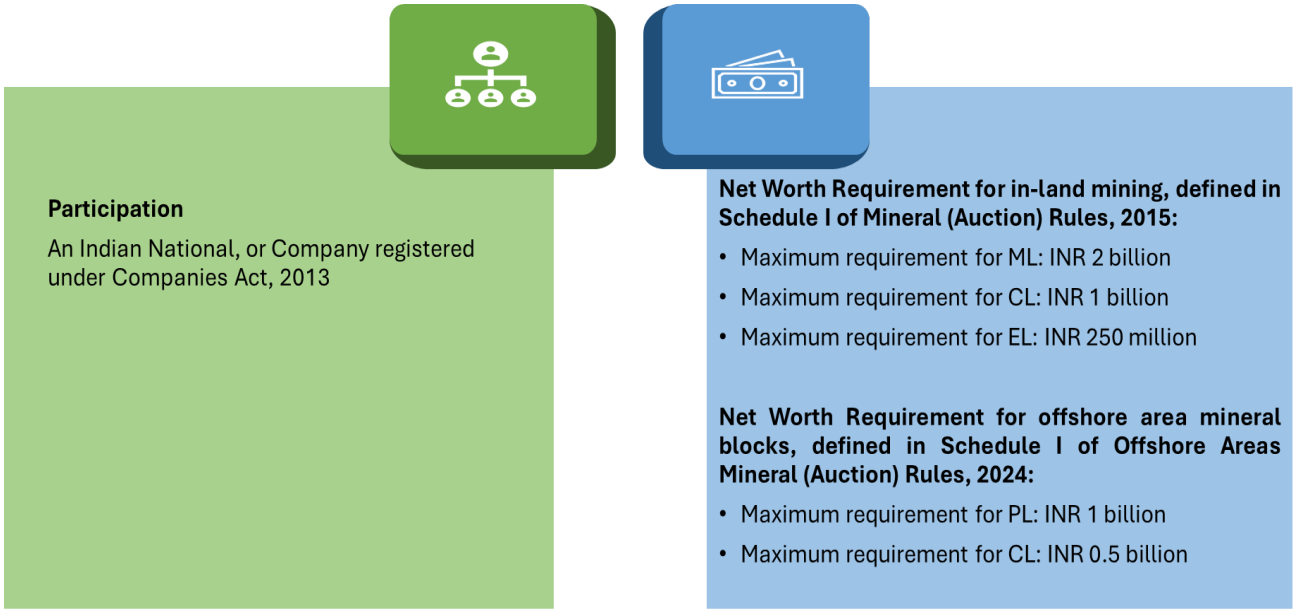


Figure 3: Eligibility Criteria for Participation in the auction process of mineral blocks in land and in offshore areas

Here are the procedural steps that bidders need to follow to participate in the e-auction process conducted by the Central Government and State Governments:

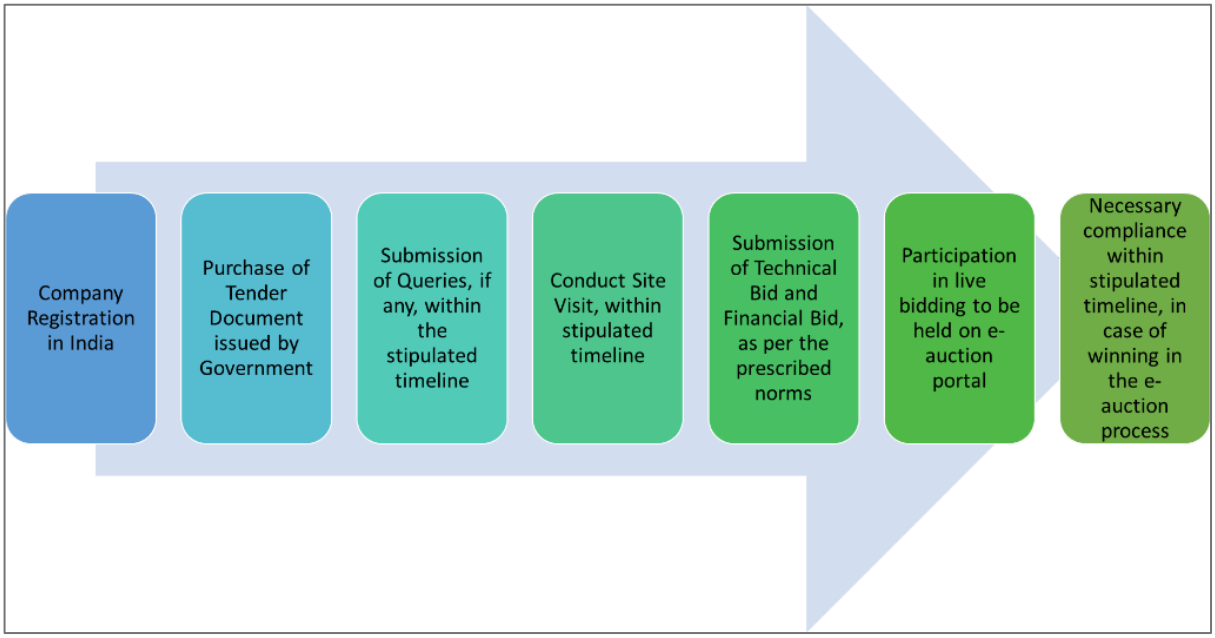


Figure 4: Procedural steps for participation in the e-auction process for grant of in-land mineral concessions and operating rights in offshore areas

The Indian mineral sector is brimming with opportunities for both domestic and international investors.

For further information, details can be accessed at:

- https://mines.gov.in/webportal/home *(For mineral sector legislation)*

- https://www.mstcecommerce.com/auctionhome/mlcln/index.jsp *(for participation in mineral block auction)*

The current live auctions provide access to a wide array of minerals. These auctions reflect India's commitment to fostering a transparent, competitive, and growth-oriented mining industry, offering lucrative prospects for stakeholders looking to capitalize on the country's rich mineral resources. Details of ongoing auctions in the country are as below:

Auctioning Authority	Sl. No.	Name of Mineral Block	Type of Mineral Concession	Mineral
Ministry of Mines (Critical & Strategic Minerals)	1.	Oranga-Revatipur Graphite and Vanadium Block	Mining Lease	Graphite and Vanadium
	2.	Katesar-Guneri Glauconite Block	Composite Licence	Glauconite
	3.	Salepali Graphite Block	Composite Licence	Graphite
	4.	Khobna and Agargaon Cluster Tungsten Block	Mining Lease	Tungsten
	5.	Mincheri REE Block	Composite Licence	REE
	6.	Ganacharpura Graphite Block	Composite Licence	Graphite
	7.	Surajpura Phosphorite Block	Composite Licence	Phosphorite
	8.	Kelenda Glauconite Block	Composite Licence	Glauconite
	9.	Raipura Phosphorite and Limestone Block	Composite Licence	Phosphorite and Limestone
	10.	Semhardih Phosphorite and Limestone Block	Composite Licence	Phosphorite and Limestone
	11.	Dombarahalli Phosphate and REE Block	Composite Licence	Phosphate and REE
	12.	Holalkere - Doddaghatta Ni and PGE Block	Composite Licence	Nickel and PGE
	13.	Jhandawali - Satipura Amalgamated Potash and Halite Block	Composite Licence	Potash and Halite
	14.	Jorkian-Satipura-Khunja Amalgamated Potash and Halite Block	Composite Licence	Potash and Halite
	15.	Nawatola-Laband REE Block	Composite Licence	Rare Earth Elements (REE)
Arunachal Pradesh	16.	Dali Limestone Block	Composite Licence	Limestone
	17.	Lokpeng Limestone Block	Composite Licence	Limestone
	18.	Pangin Limestone Block	Composite Licence	Limestone
	19.	Tidding 1 Limestone Block	Mining Lease	Limestone

Auctioning Authority	Sl. No.	Name of Mineral Block	Type of Mineral Concession	Mineral
Chhattisgarh	20.	Bailadila Deposit 01A Iron Ore Block	Composite Licence	Iron Ore
	21.	Bailadila Deposit 01B Iron Ore Block	Composite Licence	Iron Ore
	22.	Bailadila Deposit 01C Iron Ore Block	Composite Licence	Iron Ore
	23.	Hahaladdi-North Extension Iron Ore Block	Composite Licence	Iron Ore
Madhya Pradesh	24.	Argat (Part-A) Limestone Block	Mining Lease	Limestone
	25.	Argat (Part-B) Limestone Block	Mining Lease	Limestone
	26.	Argat (Part-C) Limestone Block	Mining Lease	Limestone
	27.	Argat (Part-D) Limestone Block	Mining Lease	Limestone
	28.	Jamodi-Mahanna Sector-I (Part-B) Limestone Block	Mining Lease	Limestone
	29.	Jamodi-Mahanna Sector-II (Part-B) Limestone Block	Mining Lease	Limestone
	30.	Jamodi-Mahanna Sector-III (Part-B) Limestone Block	Mining Lease	Limestone
	31.	Naubasta-Kolard Part-A (Padriya_Rajarwara_ Khamhariya Kala) Limestone Block	Mining Lease	Limestone
	32.	Naubasta-Kolard Part A (Damha_Barethiya&Kothar) Limestone Block	Mining Lease	Limestone
	33.	Naubasta-Kolard Part B (Helaundha) Limestone Block	Mining Lease	Limestone
	34.	Baghreli Bauxite & Aluminous Laterite Block	Composite Licence	Bauxite & Aluminous Laterite
	35.	Bhilapar Manganese & Dolomite Block#	Composite Licence	Manganese & Dolomite
	36.	Botejhari Manganese Block#	Composite Licence	Manganese Ore
	37.	Dhamani Nana Manganese Block#	Composite Licence	Manganese Ore
	38.	Kehalpur (East) Basemetal (Zn) Block	Composite Licence	Basemetal (Zinc)
	39.	Kubri Bauxite Block#	Composite Licence	Limestone & Bauxite
	40.	Selarpur - Nawaliya Basemetal (Copper, Lead & Zinc) Block	Composite Licence	Basemetal (Copper, Lead & Zinc)

Auctioning Authority	Sl. No.	Name of Mineral Block	Type of Mineral Concession	Mineral
	41.	Bagda-Sawarsa Basemetal (Lead, Zinc, Copper And Silver) Block	Composite Licence	Basemetal (Lead, Zinc, Copper, Silver and associated minerals)
	42.	Baranjh Pakkatola Aluminous Laterite And Bauxite Block	Composite Licence	Bauxite & Aluminous Laterite
	43.	Gulhariya Basemetal (Lead And Copper) Block	Composite Licence	Basemetal (Lead, Copper & Associated Minerals)
	44.	Harsa-1 Block	Composite Licence	Diamond
	45.	Parihasi Basemetal (Lead, Copper And Silver) Block	Composite Licence	Basemetal (Lead, Copper, Silver and associated minerals)
	46.	Bhalwar Aluminous Laterite Block	Composite Licence	Aluminous Laterite
	47.	Byodihar Gold And Basemetal (Lead & Silver) Block	Composite Licence	Gold, Basemetal (Lead & Silver) and associated minerals
Tamil Nadu	48.	Adanakuruchi Block	Mining Lease	Limestone
	49.	Alathiyur Block	Mining Lease	Limestone
	50.	Anandawadi Block	Mining Lease	Limestone
	51.	Unjini-Anandawadi Block	Mining Lease	Limestone
	52.	Periyathirukonam Block	Mining Lease	Limestone
	53.	A-03 Reddipalayam Block	Mining Lease	Limestone
	54.	A-06 Reddipalayam Block	Mining Lease	Limestone
	55.	A-15 Reddipalayam Block	Mining Lease	Limestone
	56.	Uchimedu Block	Mining Lease	Limestone
	57.	Sendurai – Maruvathur Block	Mining Lease	Limestone
Ministry of Mines (Offshore Areas Blocks)	58.	Porbandar Lime Mud Block-1	Composite Licence	Lime mud
	59.	Porbandar Lime Mud Block-2	Composite Licence	Lime mud
	60.	Porbandar Lime Mud Block-3	Composite Licence	Lime mud
	61.	Kollam Construction Sand Block-1	Composite Licence	Construction Sand
	62.	Kollam Construction Sand Block-2	Composite Licence	Construction Sand
	63.	Kollam Construction Sand Block-3	Composite Licence	Construction Sand

Auctioning Authority	Sl. No.	Name of Mineral Block	Type of Mineral Concession	Mineral
	64.	West Sewell Ridge Polymetallic Nodules and Crusts Block-1	Composite Licence	Polymetallic Nodules and Crusts
	65.	West Sewell Ridge Polymetallic Nodules and Crusts Block-2	Composite Licence	Polymetallic Nodules and Crusts
	66.	West Sewell Ridge Polymetallic Nodules and Crusts Block-3	Composite Licence	Polymetallic Nodules and Crusts
	67.	West Sewell Ridge Polymetallic Nodules and Crusts Block-4	Composite Licence	Polymetallic Nodules and Crusts
	68.	West Sewell Ridge Polymetallic Nodules and Crusts Block-5	Composite Licence	Polymetallic Nodules and Crusts
	69.	West Sewell Ridge Polymetallic Nodules and Crusts Block-6	Composite Licence	Polymetallic Nodules and Crusts
	70.	West Sewell Ridge Polymetallic Nodules and Crusts Block-7	Composite Licence	Polymetallic Nodules and Crusts

Detailed information about these mineral blocks is provided in the subsequent pages of this booklet.

Composite License (CL) and Mining Lease (ML) Blocks of Critical & Strategic Minerals by Ministry of Mines

Oranga-Revatipur Graphite and Vanadium Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Graphite (Flaky) and Vanadium
Area Sq. Km.	3.66478
Exploration Agency	Geological Survey of India
Morphology of the Area	The area has varied topography with elevations ranging from 345 m to 445 m above Mean Sea Level.
Exploration Level	G-2

2. RESOURCE SUMMARY

Resource & Grade	Graphite: At 2% FC cutoff: 9.28 million tonnes (9279744.24 tons) with an average grade of 5.48% FC At 5% FC cutoff: 6.92 million tonnes (6924711.86 tons) with an average grade of 6.92% FC Vanadium: 0.70 million tonnes (703355.25 tons) at 1000ppm cut off with an average grade of 1211.64 ppm

3. LOCATION DETAILS

Village	Oranga, Revatipur
Tehsil/Taluka	Ramchandrapur
District	Balrampur-Ramanujganj
State	Chhattisgarh
Toposheet	64M/5

4. CONNECTIVITY

Rail	Ambikapur
Road	Balrampur, district headquarters, is 51 km away from the study area; Ambikapur, the nearest city, is 137 km from the area.
Airport	Raipur, Chhattisgarh

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The graphite is flaky with minor association of amorphous. The ore body strikes N30°W-S30°E, with dip varying from 20° to 60° due NE and SW.
Samples	35 inclined boreholes with a total meterage of 3729m, 8 trenches totaling 59.2 cubic meters, and 10 pits with 10 cubic meters of pitting.

Katesar-Guneri Glauconite Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Glauconite
Area Sq. Km.	4.9899 Sq.Km
Exploration Agency	Geological Survey of India
Morphology of the Area	The area is planar and gently undulating, with elevations ranging from 10 to 127 meters. The terrain is part of basalt and doleritic hills near Guneri
Exploration Level	G-4 (Reconnaissance Survey)

2. RESOURCE SUMMARY

Resource & Grade	Glauconite resources have been estimated based on pitting and trenching; however, estimates are not included in the calculation of VER and other related metrics.

3. LOCATION DETAILS

Village	Katesar, Guneri
Tehsil/Taluka	Lakhpat
District	Kachchh
State	Gujarat
Toposheet	41A/13

4. CONNECTIVITY

Rail	Bhuj
Road	National Highways 8C, 8A, and 341 connect Gandhinagar to Bhuj.
Airport	Rudramata, Bhuj

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The glauconitic sandstone is mainly composed of quartz and glauconite. It exhibits green pleochroism and ranges from light to dark green. The regional strike of the bedding plane is parallel to the Guneri dome and varies from NE-SW to NW-SE
Samples	77 pits totaling 150 cubic meters. No drilling was carried out

Salepali Graphite Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Graphite (Flaky variety)
Area Sq. Km.	12.23 Sq Km
Exploration Agency	Mineral Exploration and Consultancy Limited (formerly Mineral Exploration Corporation Limited), Ministry of Mines, Govt. of India.
Morphology of the Area	The morphology of the Salepali Graphite Block is generally flat, with two isolated hillocks located in the south-central part of the block. Elevations range from 268 meters at the lowest point in the northern and southern parts to 346 meters at the highest point in the south-central region.
Exploration Level	G-3

2. RESOURCE SUMMARY

Resource & Grade	The inferred mineral resource (333) of graphite is 0.153 million tonnes, with a grade of 2.21% FC at a 2% FC cut-off, based on a cumulative strike length of 240m, up to a vertical depth of 65m, and an average thickness of 2.02m

3. LOCATION DETAILS

Village	Salepali
Tehsil/Taluka	Patnagarh
District	Balangir
State	Odisha
Toposheet	64 P/02

4. CONNECTIVITY

Rail	Kantabanji (East Coast Railways)
Road	Patnagarh
Airport	Swami Vivekanand Airport, Raipur

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Graphite in flaky form, with formations trending NE-SW and dipping between 65° to 85° north-west
Samples	Integrated geophysical surveys identified five anomaly zones with SP anomaly values ranging from -90 to -430 mV. One zone is recommended for exploratory drilling

Khobna and Agargaon Cluster Tungsten Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Tungsten ore
Area Sq. Km.	1.51 sq. km (Khobna Block: 1.07 sq. km, Agargaon Block: 0.44 sq. km)
Exploration Agency	Geological Survey of India (GSI), Mineral Exploration and Consultancy Limited (MECL)
Morphology of the Area	Khobna: An undulating plateau with a height variation from 282 m (north) to 260 m (south). Agargaon: Generally flat landscape with small hills (Rajora hills), elevation ranging from 260 m to 340 m.
Exploration Level	G2 (General Exploration)

2. RESOURCE SUMMARY

Resource & Grade	Khobna Block: 3.10 million tonnes (avg. 0.304% WO3) Agargaon Block: 0.57 million tonnes (avg. 0.32% WO3)

3. LOCATION DETAILS

Village	Khobna, Agargaon
Tehsil/Taluka	Kuhi
District	Nagpur
State	Maharashtra
Toposheet	Survey of India Toposheet No- 55O/8

4. CONNECTIVITY

Rail	Kuhi
Road	Khobna Block: 47 km from Nagpur via Pachegaon-Kuhi road. Agargaon Block: 22 km from Nagpur via Nagpur-Umrer Road
Airport	Nagpur (45 km)

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Khobna Block: Tungsten mineralization within a greisen zone (average width 16 m) over a strike length of 400 m. Agargaon Block: Tungsten values encountered continuously in greisen zone over 320 m strike length.
Samples	Khobna Block: 15 Nos Pitting/trenching (1030 cum) by GSI and 03 Pits (94.45 cum) by MECL Agargaon Block: 102 pits (2260 cu.m) by GSI samples

Mincheri REE Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Rare Earth Elements (REE)
Area Sq. Km.	2.07 sq. km
Exploration Agency	Geological Survey of India, State Unit-Karnataka and Goa
Morphology of the Area	REE rich zones found in quartz veins related to alkaline intrusions cutting through granitic plutons. The veins range in width from 1 m to 8 m and extend over a length of 1.3 km.
Exploration Level	G-3 (Preliminary exploration)

2. RESOURCE SUMMARY

Resource & Grade	Inferred Mineral Resources (333) of REE (0.1% ΣREE Cut-off grade)–714782 Tonnes (0.714 Million Tonnes) with average grade of 0.65% TREE

3. LOCATION DETAILS

Village	Mincheri
Tehsil/Taluka	Lingasugur
District	Raichur
State	Karnataka
Toposheet	Mincheri REE Block is 56D/8 & 56D/12

4. CONNECTIVITY

Rail	Raichur
Road	The block is well connected by road to Bangalore, Hubli, and other major cities.
Airport	Kalaburagi Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	REE-rich zones occur in quartz veins, associated with alkaline intrusions through granitic plutons. Widths vary from 1 m to 8 m along a 1.3 km stretch10 boreholes drilled (967.5 m total) using core drilling method at 100 m strike intervals,13 trenches dug across the ore zone.
Samples	83 trench samples, 108 BRS/chip samples, 202 core samples. Analytical results for core samples show ΣREE content ranging from 45.54 ppm (0.004%) to 66744.29 ppm (6.67%).

Ganacharpura Graphite Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Graphite (Flaky variety)
Area Sq. Km.	5.01 sq. km
Exploration Agency	Mineral Exploration & Consultancy Limited, (A Govt. of India Enterprise, Miniratna PSE)
Morphology of the Area	The block area depicts plain with a gentle slope towards North-East, sloping from South-West to North-East.
Exploration Level	G-4 (Reconnaissance Survey)

2. RESOURCE SUMMARY

Resource & Grade	(334) of Graphite: 556,216 tonnes (0.556 million tonnes) with an average grade of 10.43% FC at 2% FC cutoff grade.

3. LOCATION DETAILS

Village	Ganacharpura
Tehsil/Taluka	Bangarapet
District	Kolar
State	Karnataka
Toposheet	Survey of India Toposheet No. 57K/4

4. CONNECTIVITY

Rail	Bangarapet Railway Station
Road	Kolar
Airport	Bengaluru Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The Ganacharpura Graphite Block has three mineralized zones, with graphite dipping subvertically towards the east. The mineralization trend is NNE-SSW and NE-SW, and the graphite occurs in a flaky variet
Samples	68 bedrock samples were collected, with 29 found to be graphite-bearing, showing FC% ranging from 1.03% to 14.56%.

Surajpura Phosphorite Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Phosphorite
Area Sq. Km.	10.72 sq. km
Exploration Agency	Geological Survey of India, Central Region, Bhopal
Morphology of the Area	The block area depicts plain with a gentle slope towards North-East, sloping from South-West to North-East
Exploration Level	G-4 (Reconnaissance Survey)

2. RESOURCE SUMMARY

Resource & Grade	Phosphorite resources have been estimated based on Bedrock samples and Pit samples, with encouraging P2O5 content ranging from 5.35% to 34.26%, and an average grade of 22.05%.

3. LOCATION DETAILS

Village	Surajpura, Taura, Hirapur (Nearby Villages)
Tehsil/Taluka	Shahgarh
District	Sagar and Chhatarpur
State	Madhya Pradesh
Toposheet	Survey of India Toposheet No 54 P/03 and 54 P/07

4. CONNECTIVITY

Rail	Sagar (Nearest Railhead)
Road	Well connected via Hirapur
Airport	Khajuraho Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The Surajpura Phosphorite Block has 8 ore zones and 28 phosphorite ore bodies. The ore bodies trend NESW to NW-SE, with moderate to high dips towards the south. The mineralization is structurally controlled.
Samples	196 PTS and 180 BRS samples were collected, with P2O5 content ranging from 5.35% to 34.26%. The average grade is 22.05%

Kelenda Glauconite Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Glauconite
Area Sq. Km.	3.975 sq. km
Exploration Agency	Geological Survey of India, CR, SU: Chhattisgarh
Morphology of the Area	The study area is characterized predominantly by plain to gently undulating lands, with elevations ranging from 238m to 272m above MSL
Exploration Level	G-3 (Preliminary Explorations)

2. RESOURCE SUMMARY

Resource & Grade	Total Geological Resources (333) of Glauconite: 64.08 MT (64081426.6 tons) at an average grade of 5.45% K_2O, with a mineralized zone cut-off grade of 4% K_2O.

3. LOCATION DETAILS

Village	Kelenda, Khairmal, Kasalba, Jognipali
Tehsil/Taluka	Saraipali
District	Mahasamund
State	Chhattisgarh
Toposheet	Survey of India Toposheet No 64K/15 and 64K/16

4. CONNECTIVITY

Rail	Nearest Railway Station is Bargarh
Road	Easily accessible by National Highway NH-53
Airport	Nearest airport is Raipur Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The mineralization of Glauconite in the block exhibits a general strike of NE-SW, dipping at 10° to 15° towards the southeast.
Samples	16 boreholes were drilled, with a total drilling meterage of 634.00 m. Additionally, 52 pits and trenches were done during the G4 stage exploration.

Raipura Phosphorite and Limestone Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Phosphorite and Limestone
Area Sq. Km.	10.0936 sq. km
Exploration Agency	Geological Survey of India, Central Region, State Unit: Chhattisgarh
Morphology of the Area	G-3 (Preliminary Exploration)
Exploration Level	Composite License

2. RESOURCE SUMMARY

Resource & Grade	Phosphorite:Total Inferred Resource (333) of 14.57 MT (14570600 tons) and 12.05 MT (12054600 tons) at 4% cut-off, with an average grade of 5.42% P2O5 (1m width) and 5.66% P2O5 (2m width). Total Inferred Resource (333) of 5.98 MT (5998000 tons) and 2.39 MT (2397600 tons) at 5% cut-off, with an average grade of 6.27% P2O5 (1m width) and 6.93% P2O5 (2m width). Limestone:Total Inferred Resource (333) of 169.25 MT (169250000 tons) and 145.75 MT (145749360 tons) of cement-grade limestone (Portland, CaO% 44-52%) at 1m and 2m stopping widths with an average grade of 48.24% CaO (1m width) and 48.32% CaO (2m width). Cement grade limestone (Blendable CaO 38-44%): 1.55 MT at 1m stopping width with an average grade of 43.09% CaO.

3. LOCATION DETAILS

Village	Raipura
Tehsil/Taluka	Dondi Lohara
District	Balod
State	Chhattisgarh
Toposheet	Survey of India Toposheet No 64H/01

4. CONNECTIVITY

Rail	Balod
Road	Located 105 km southwest of Raipur, connected by NH-53 and Rajnandgaon-Dalli Rajhara road
Airport	Raipur Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The strike of the bed is E-W, with a gentle dip of 1° to 3° towards the northerly direction
Samples	13 boreholes drilled, with a total drilling meterage of 605.65 m. No trench or pit work carried out. Borehole density is 800m x 800m.

Semhardih Phosphorite and Limestone Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Phosphorite and Limestone
Area Sq. Km.	9.60 Sq Km
Exploration Agency	Geological Survey of India, Central Region, State Unit: Chhattisgarh
Morphology of the Area	The Semhardih Phosphorite and Limestone Block is characterized by flat land topography with some settlements. The highest elevation within the area reaches 337 meters above Mean Sea Level (MSL) in the north-western part, while the lowest elevation is 318 meters above MSL in the south-eastern part
Exploration Level	G-3 (Preliminary Exploration)

2. RESOURCE SUMMARY

Resource & Grade	Phosphorite: Inferred Resource (333): 3.39 million tonnes (3385600 tons) of beneficiable grade phosphorite at a cut-off grade of 5-10% P2O5. Limestone: Inferred Resource (333): 428.89 million tonnes (428888880 tons) of cement-grade limestone (CaO 44-52%, SiO2 <16%, MgO <3.6%) at cut-off grade.

3. LOCATION DETAILS

Village	Semhardih and nearby villages
Tehsil/Taluka	Dondi Lohara
District	Balod
State	Chhattisgarh
Toposheet	Survey of India Toposheet No 64H/01

4. CONNECTIVITY

Rail	Rajnandgaon and Balod
Road	Located 29.1 km from Rajnandgaon, 26.6 km from Balod, and 101 km from Raipur
Airport	Raipur Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The Semhardih block possesses horizontal to sub-horizontal beds. The strike of the bed is E-W, with a dip towards the north
Samples	15 boreholes drilled with a total drilling meterage of 907.25 m

Dombarahalli Phosphate and REE Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Phosphate and REE (Rare Earth Elements)
Area Sq. Km.	5.58 sq. km
Exploration Agency	Geological Survey of India, Southern Region, Karnataka and Goa, Hyderabad
Morphology of the Area	The area consists predominantly of cultivated land, with settlements.
Exploration Level	G-3 (Preliminary Explorations)

2. RESOURCE SUMMARY

Resource & Grade	Total Geological Resources (333) of Phosphate: 3.28 MT (3,279,919.50 tons) at a grade of 6.24% P2O5 (5% cutoff), 15.69 MT (15,694,263.00 tons) at a grade of 4.26% P2O5 (3% cutoff) Total Geological Resources (333) of REE (TREE): 0.88 MT (876,227.63 tons) at an average of 0.32% TREE (cutoff 0.25%) 1.22 MT (1,222,357.00 tons) at an average of 0.34% TREO (cutoff 0.25%)

3. LOCATION DETAILS

Village	Dombarahalli, Budihalu
Tehsil/Taluka	Koppal
District	Koppal
State	Karnataka
Toposheet	Survey of India Toposheet No. 57A/3

4. CONNECTIVITY

Rail	Nearest Railway Station is Koppal Railway Station
Road	Dombarahalli is 20 km southwest of Koppal town
Airport	Jindal Vijayanagar Airport and Hubli Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The mineralization of Phosphate and REE in the block exhibits a general strike in the NE-SW direction, with an eastward dip. The mineralized zones are concentrated in the phoscorite plugs
Samples	A total of 6 boreholes were drilled, with a total drilling meterage of 581.50 meters. Boreholes were spaced at intervals of 180 to 200 meters

Holalkere - Doddaghatta Ni and PGE Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Nickel (Ni) and Platinum Group Elements (PGE)
Area Sq. Km.	9.99 sq. km
Exploration Agency	Geological Survey of India, Southern Region, Karnataka and Goa, Bengaluru
Morphology of the Area	The area exhibits undulating topography with moderate elevation variation. It is primarily agricultural land, with some built-up areas, wastelands, and water bodies
Exploration Level	G-4 (Reconnaissance Survey)

2. RESOURCE SUMMARY

Resource & Grade	No reconnaissance mineral resource (334) has been established in the block. The sheared contact between hornblendite and amphibolite shows PGE values between 57.77 to 620.57 ppb, with an average of 293.79 ppb over 10 meters. Cu values range from 31 ppm to 313 ppm, while Ni values vary from 47 ppm to 675 ppm.

3. LOCATION DETAILS

Village	Jayachamarajapura, Holalakere, Kurubarahalli, Basavanahalli, Chikkalkur, Haralakatta, Doggaghatta
Tehsil/Taluka	Arsikere
District	Hassan
State	Karnataka
Toposheet	Survey of India Toposheet No. 57C/7

4. CONNECTIVITY

Rail	Arsikere, located about 20 km away
Road	The area is accessible via National Highway NH-206 from Bangalore. The region is connected by metaled roads from Arsikere to Huliyar.
Airport	Bengaluru Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The mineralization is associated with sheared contacts of hornblendite and amphibolite. The trend of mineralization strikes N60°W–S60°E with moderate to steep dips toward the southwest.
Samples	3 trenches were excavated, totaling 61 cubic meters. No drilling was conducted during the exploration phase.

Jhandawali – Satipura Amalgamated Potash and Halite Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Potash and Halite
Area Sq. Km.	18.41 sq. km
Exploration Agency	Geological Survey of India, Western Region, Rajasthan, Jaipur
Morphology of the Area	The surface area of the block is flat and covered by thick aeolian sand and/or alluvial sediments. The area consists of quaternary sediments
Exploration Level	G-3 (Preliminary Exploration)

2. RESOURCE SUMMARY

Resource & Grade	• Potash: At 2% cut-off: 162.23 million tonnes at 4.04% K (4.87% K2O) At 5% cut-off: 34.01 million tonnes at 9.59% K (11.56% K2O) At 8% cut-off: 18.07 million tonnes at 12.87% K (15.51% K2O) • Halite: 5840.16 million tonnes at 31.47% cut-off (equivalent to 80% NaCl) with an average grade of 35.53% Na

3. LOCATION DETAILS

Village	Jhandawali
Tehsil/Taluka	Hanumangarh
District	Hanumangarh
State	Rajasthan
Toposheet	Survey of India Toposheet No. 44K/02

4. CONNECTIVITY

Rail	The nearest railway station is Hanumangarh Junction
Road	The area is well-connected by SH-7 & 7A roads to Sri Ganganagar, Churu, and Ajmer. NH-11 (Rewari–Jaisalmer) and NH-15
Airport	Bikaner Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The mineralization in the block consists of potash and halite with bedded deposits.
Samples	27 boreholes were drilled, totaling 20,194 meters, with geophysical logging conducted using Natural Gamma, Density, and Neutron probes.

Jorkian-Satipura-Khunja Amalgamated Potash and Halite Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Potash and Halite
Area Sq. Km.	16.99 sq. km
Exploration Agency	Geological Survey of India, Western Region, Rajasthan, Jaipur
Morphology of the Area	The surface area of the block is flat and consists of quaternary sediments. The area is entirely covered by thick aeolian sand and/or alluvial sediments
Exploration Level	G-3 (Preliminary Exploration)

2. RESOURCE SUMMARY

Resource & Grade	• Potash: At 2% cut-off: 177.16 million tonnes at 4.645% K (5.978% K2O) At 5% cut-off: 46.57 million tonnes at 9.820% K (11.834% K2O) At 8% cut-off: 27.49 million tonnes at 12.834% K (15.4657% K2O) • Halite: 5355.65 million tonnes at 31.47% cut-off with an average grade of 36.321% Na with over 80% NaCl.

3. LOCATION DETAILS

Village	Makkasar
Tehsil/Taluka	Hanumangarh
District	Hanumangarh
State	Rajasthan
Toposheet	Survey of India Toposheet No. 44K/02 and K/06

4. CONNECTIVITY

Rail	The nearest railway station is Hanumangarh Junction
Road	The area is well-connected to Sri Ganganagar, Churu, Ajmer, and Jaipur by National highway and state highway SH roads
Airport	Bikaner Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The mineralization in the block consists of potash and halite with bedded deposits.
Samples	23 boreholes were drilled, totaling 17,841.10 meters, with geophysical logging conducted using Natural Gamma, Density, and Neutron probes.

Nawatola-Laband REE Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Rare Earth Elements (REE)
Area Sq. Km.	2.1 sq. km
Exploration Agency	Geological Survey of India, Northern Region, Uttar Pradesh, Lucknow
Morphology of the Area	The area features pediplains, pediments, and residual hills.
Exploration Level	G-3 (Preliminary Exploration)

2. RESOURCE SUMMARY

Resource & Grade	Total REE resource of 0.18263 million tonnes (182,623.81 tonnes) at 1145.46 ppm (0.1145% REE) grade at a 0.10% cutoff.

3. LOCATION DETAILS

Village	Nawatola, Phatphakna, Supachuwa, Agariatola, Baghmandwa, Laband
Tehsil/Taluka	Dudhi
District	Sonbhadra
State	Uttar Pradesh
Toposheet	Survey of India Toposheet No. 63P/4

4. CONNECTIVITY

Rail	The nearest railway stations are Dudhi and Renukoot
Road	The block area lies 29 km southwest of Dudhi town and 19 km southeast of Renukoot town
Airport	Varanasi Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The REE mineralization is associated with K Feldspar Granite with thin veins of magnetite.
Samples	6 boreholes were drilled, totaling 500.85 meters, with geophysical logging carried out

Composite License (CL) and Mining Lease (ML) Blocks of Arunachal Pradesh

Dali Limestone Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Limestone
Area Sq. Km.	14.07 Sq.km
Exploration Agency	Geological Survey of India
Morphology of the Area	The topography is hilly with dense vegetation. The limestone band shows pinch and swell nature, with a strike length of 3 km. The band trends NW-SE to NNW-SSE, dipping 40°-65° towards NE.
Exploration Level	G4 (Reconnaissance Exploration)

2. RESOURCE SUMMARY

Resource & Grade	Total 225.0 MT Reconnaissance Resources (334) are established with low and medium-grade limestone with CaO concentrations ranging from 26.04% to 53.46%, and MgO from 0.4% to 4.1%.

3. LOCATION DETAILS

Village	Dali Village
Tehsil/Taluka	Daring Circle
District	Leparada
State	Arunachal Pradesh
Toposheet	Survey of India Toposheet no 83I/9 & 83I/13

4. CONNECTIVITY

Rail	Silapathar Railway Station
Road	NH-15, Likabali-Basar Road, NH-13
Airport	Dibrugarh Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Limestone occurs as a sequence along a NE-SW ridge, associated with quartzite and metabasics. The limestone body exhibits pinch and swell characteristics, with a strike length of 3 km. The band trends NW-SE to NNW-SSE and dips 40°-65° towards NE.
Samples	8 bedrock samples collected across the strike from both the lower and upper bands, with CaO concentrations ranging from 26.04% to 53.46%, and MgO from 0.4% to 4.1%.

Lokpeng Limestone Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Limestone
Area Sq. Km.	12.21 sq. km (1221 Ha)
Exploration Agency	Geological Survey of India
Morphology of the Area	The limestone bands occur in an E-W linear ridge located immediately to the south of the road.
Exploration Level	G4 (Reconnaissance Exploration)

2. RESOURCE SUMMARY

Resource & Grade	Total 37 MT Reconnaissance Resources (334) are established the occurrence of limestone with a total resource estimated at 37 million tonnes. The limestone grade ranges from CaO 38.32% to 50.96%, MgO from 0.8% to 6.8%, and SiO2 from 0.39% to 11.74%.

3. LOCATION DETAILS

Village	Lokpeng
Tehsil/Taluka	Pangin Circle
District	East Siang
State	Arunachal Pradesh
Toposheet	Survey of India Toposheet no 82L/16

4. CONNECTIVITY

Rail	Silapathar Railway Station
Road	NH-15, Likabali-Basar Road, NH-13
Airport	Dibrugarh Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Two limestone bands are present in this area. The lower band overlies quartzite/phyllite and underlies phyllite, whereas the upper band occurs within phyllite. The bands are folded in the form of a syncline with the axis plunging 12° towards S 50° E. The fold's axial plane dips 60° SW. The eastern limb strikes WNW-ESE to ENE-WSW, with 20° to 40° dip towards SW and SE. The western limb strikes NW-SE with 40°-50° dip towards NE.
Samples	14 composite samples were collected across the strike from both the lower and upper bands along sample lines and profiles. Analytical results show CaO concentration ranging from 38.32% to 50.96%, MgO from 0.8% to 6.8%, and SiO2 from 0.39% to 11.74%.

Pangin Limestone Block

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Limestone
Area Sq. Km.	22.94 sq. km (2294 Ha)
Exploration Agency	Geological Survey of India
Morphology of the Area	The topography is hilly with dense vegetation.
Exploration Level	G4 (Reconnaissance Exploration)

2. RESOURCE SUMMARY

Resource & Grade	Total Reconnaissance Resource (334): Eastern Band: 3.276 million tonnes with CaO from 39.48% to 50.4%, MgO from 2.4% to 6.0%, and SiO2 from 2.18% to 12.16%. Western Band: 6.825 million tonnes with CaO from 39.48% to 50.4%, MgO from 2.4% to 6.0%, and SiO2 from 2.18% to 12.16%. Total Resources: 10.101 million tonnes (7.07 million tonnes after deducting 30% as mining loss).

3. LOCATION DETAILS

Village	Pangin
Tehsil/Taluka	Pangin Circle
District	East and West Siang
State	Arunachal Pradesh
Toposheet	Survey of India Toposheet no 82P/4, 82L/16

4. CONNECTIVITY

Rail	Silapathar
Road	NH-15, Likabali-Basar road, NH-13
Airport	Dibrugarh

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Two limestone bands are present in this area. Eastern Band: N40°W to N70°W- S40°E to S70°E with 40° to 70° dip towards NE. Western Band: NW-SE/50° NE, NE-SW/60° NW
Samples	20 composite samples were collected from both the eastern and western bands. Analytical results show CaO concentration ranging from 39.48% to 50.4%, MgO from 2.4% to 6.0%, and SiO2 from 2.18% to 12.16%.

Tidding 1 Limestone Block

1. FEATURES

Concession Type	Mining Lease (ML)
Mineral	Limestone (Cement Grade)
Area Sq. Km.	8.92 Sq. Km.
Exploration Agency	M/s Parasuram Cement Limited in collaboration with M/S Udaipur Min-Tech Pvt Ltd
Morphology of the Area	Hilly terrain with dense vegetation
Exploration Level	G-2 (General Exploration)

2. RESOURCE SUMMARY

Resource & Grade	The mineral block has an estimated total geological resource of 189.42 million tonnes. This includes 48.6 million tonnes of Measured (G-1) resources with a CaO content ranging from 44.28% to 48.61% and SiO2 from 6.08% to 9.52%. The Indicated (G-2) resources account for 28.33 million tonnes, with similar chemical compositions, with CaO ranging from 44.28% to 48.61% and SiO2 from 6.08% to 9.52%. The Inferred (G-3) resources are estimated at 112.49 million tonnes, maintaining the same range for CaO and SiO2 content.

3. LOCATION DETAILS

Village	Chiddaliang (Tidding)
Tehsil/Taluka	-
District	Anjaw
State	Arunachal Pradesh
Toposheet	92A/5 and 91D/8

4. CONNECTIVITY

Rail	New Tinsukia
Road	Tezu
Airport	Mohanbari

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Two crystalline limestone bands (Zone-1 & Zone-2), with a strike of NW-SE and dip of 55° to 70° due east.
Samples	1859 bedrock samples and 18 channel samples.

Composite License (CL) and Mining Lease (ML) Blocks of Chhattisgarh

Bailadila Deposit 01A Iron Ore Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Iron Ore
Area Sq. Km.	8.50 Sq. KM
Exploration Agency	M/s Tata Steel Limited
Morphology of the Area	The block area has an undulating topography. In the block area the plateau is sloping on either sides W and E. The highest elevation is noted as 1026m above MSL while lowest elevation in the block area is 420 m MSL.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Resource have been tentatively estimated by extrapolation method. The resource and mineralized area proved in the adjacent earlier allotted PL of M/s JSPL over 1162 ha has been considered for extrapolation. Total 55.23 million tonnes at 62.81% Fe has been tentatively projected in Bailadila Deposit 01A.

3. LOCATION DETAILS

Village	Jhirka, Bhansi, Basanpur etc.
Tehsil/Taluka	Dantewada
District	Dantewada
State	Chhattisgarh
Toposheet	64F/1 and 65F/5

4. CONNECTIVITY

Rail	Rail line is passing close to block area and Dantewada Railway station is located about 24 kms from the block area while Bacheli Railway station is located about 27 kms from the block area.
Road	Raipur city is located about 426 kms via NH30 from the block area. Further Dantewada is fairly connected by road with major townships.
Airport	The Jagdalpur airport is nearest airport located about 108 kms from the block area.

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Regional strike of the formation is N-S direction and dipping steeply on either E and W side.
Samples	NA

Bailadila Deposit 01B Iron Ore Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Iron Ore
Area Sq. Km.	8.50 Sq. KM
Exploration Agency	M/s Tata Steel Limited
Morphology of the Area	The block area has an undulating topography. In the block area the plateau is sloping on either sides W and E. The highest elevation is noted as 1020m above MSL while lowest elevation in the block area is 500 m MSL.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Resource have been tentatively estimated by extrapolation method. The resource and mineralized area proved in the adjacent earlier allotted PL of M/s JSPL over 1162 ha has been considered for extrapolation. Total 103.25 million tonnes at 62.81% Fe has been tentatively projected in Bailadila Deposit 01B.

3. LOCATION DETAILS

Village	Jhirka, Bhansi, Basanpur etc.
Tehsil/Taluka	Dantewada
District	Dantewada
State	Chhattisgarh
Toposheet	64F/1 and 65F/5

4. CONNECTIVITY

Rail	Rail line is passing close to block area and Dantewada Railway station is located about 26 kms from the block area while Bacheli Railway station is located about 29 kms from the block area
Road	Raipur city is located about 425 kms via NH30 from the block area. Further Dantewada is fairly connected by road with major townships.
Airport	The Jagdalpur airport is nearest airport located about 111 kms from the block area.

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Regional strike of the formation is N-S direction and dipping steeply on either E and W side.
Samples	NA

Bailadila Deposit 01C Iron Ore Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Iron Ore
Area Sq. Km.	8.25 Sq. KM
Exploration Agency	M/s Tata Steel Limited
Morphology of the Area	The block area has an undulating topography. In the block area the plateau is sloping on either sides W and E. The highest elevation is noted as 1045m above MSL while lowest elevation in the block area is 540 m MSL.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Resource have been tentatively estimated by extrapolation method. The resource and mineralized area proved in the adjacent earlier allotted PL of M/s JSPL over 1162 ha has been considered for extrapolation. Total 129.93 million tonnes at 62.81% Fe has been tentatively projected in Bailadila Deposit 01C.

3. LOCATION DETAILS

Village	Jhirka, Bhansi, Basanpur etc.
Tehsil/Taluka	Dantewada
District	Dantewada
State	Chhattisgarh
Toposheet	64F/1 and 65F/5

4. CONNECTIVITY

Rail	Rail line is passing close to block area and Dantewada Railway station is located about 22 kms from the block area while Bacheli Railway station is located about 18 kms from the block area
Road	Raipur city is located about 425 kms via NH30 from the block area. Further Dantewada is fairly connected by road with major townships.
Airport	The Jagdalpur airport is nearest airport located about 106 kms from the block area.

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Regional strike of the formation is N-S direction and dipping steeply on either E and W side.
Samples	NA

Hahaladdi North ExtensionIron Ore Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Iron Ore
Area Sq. Km.	2.0161 Sq. KM
Exploration Agency	NA
Morphology of the Area	The area exhibits an undulated rugged topography over the hillv terrain
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Considering the unitary method of extrapolation of resources from the established mine explored at G2 level, the resource of the proposed block is coming around 2.54 MT.

3. LOCATION DETAILS

Village	Hahaladdi
Tehsil/Taluka	Uttar Bastar Kanker
District	Uttar Bastar Kanker
State	Chhattisgarh
Toposheet	64 D/16

4. CONNECTIVITY

Rail	Kewati (25 km from the study area)
Road	Bhanupratappur-Pakhanjur Road - 1 Km
Airport	Jagadalpur 180 Km

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Dipping 65° to 70° towards east
Samples	NA

Composite License (CL) and Mining Lease (ML) Blocks of Madhya Pradesh

Argat (Part-A) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	0.66 Sq. KM
Exploration Agency	• Directorate of Geology and Mining, Madhya Pradesh • Qualified Person – P.P. Mishra (Dy. Director Technical)
Morphology of the Area	The area is characterized by an undulating terrain within the Son-Valley region, part of the Vindhyan hills. It includes rugged topography with elevations ranging from 450 to 580 meters above mean sea level. The landscape features ridges and plateaus, with the northern part dominated by Kaimur sandstone and the southwestern area forming a higher plateau of the Bhander series. This diverse morphology reflects the geological complexity and structural stability of the region.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	6.87 million tonnes (6,869,890.77 tonnes), comprising 2,240,268.81 tonnes of cement-grade limestone and 4,629,621.96 tonnes of blendable-grade limestone.

3. LOCATION DETAILS

Village	Argat
Tehsil/Taluka	Ramnagar
District	Maihar
State	Madhya Pradesh
Toposheet	63H/3

4. CONNECTIVITY

Rail	The nearest railhead to the Block is Rewa railway station, located approximately 45 kilometers south of Rewa.
Road	Rewa-Shahdol road
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A general North East-South West (NE-SW) strike with a gentle southerly dip ranging between 1° to 2°.
Samples	06 core boreholes were drilled within the block area. (Total meterage – 196.25 m)

Argat (Part-B) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	0.219 Sq. KM
Exploration Agency	• Directorate of Geology and Mining, Madhya Pradesh • Qualified Person – P.P. Mishra (Dy. Director Technical)
Morphology of the Area	The area is characterized by an undulating terrain within the Son-Valley region, part of the Vindhyan hills. It includes rugged topography with elevations ranging from 450 to 580 meters above mean sea level. The landscape features ridges and plateaus, with the northern part dominated by Kaimur sandstone and the southwestern area forming a higher plateau of the Bhander series. This diverse morphology reflects the geological complexity and structural stability of the region.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	0.96 million tonnes (969937 tonnes) of limestone, comprising 597529 tonnes of cement-grade limestone and 372408 tonnes of blendable grade limestone.

3. LOCATION DETAILS

Village	Argat
Tehsil/Taluka	Ramnagar
District	Maihar
State	Madhya Pradesh
Toposheet	63H/3

4. CONNECTIVITY

Rail	The block is accessible via the Rewa-Shahdol road, with the village of Argat located approximately 45 kilometers south of Rewa.
Road	Rewa-Shahdol road
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A general North East-South West (NE-SW) strike with a gentle southerly dip ranging between 1° to 2°.
Samples	02 core boreholes were drilled within the block area, and 03 core boreholes were drilled outside the block area, with a total meterage of 157.65 meters.

Argat (Part-C) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	0.19571 Sq. KM
Exploration Agency	• Directorate of Geology and Mining, Madhya Pradesh • Qualified Person – P.P. Mishra (Dy. Director Technical)
Morphology of the Area	The area is characterized by an undulating terrain within the Son-Valley region, part of the Vindhyan hills. It includes rugged topography with elevations ranging from 450 to 580 meters above mean sea level. The landscape features ridges and plateaus, with the northern part dominated by Kaimur sandstone and the southwestern area forming a higher plateau of the Bhander series. This diverse morphology reflects the geological complexity and structural stability of the region.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	5.68 million tonnes (5676200 tonnes) of limestone, comprising 124967 tonnes of cement-grade limestone and 5551233 tonnes of blendable grade limestone.

3. LOCATION DETAILS

Village	Argat
Tehsil/Taluka	Ramnagar
District	Maihar
State	Madhya Pradesh
Toposheet	63H/3

4. CONNECTIVITY

Rail	The nearest railhead to the Block is Rewa railway station, located approximately 45 kilometers south of Rewa.
Road	Rewa-Shahdol road
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A general North East-South West (NE-SW) strike with a gentle southerly dip ranging between 1° to 2°.
Samples	03 core boreholes were drilled within the block area. (Total meterage – 102.60 m)

Argat (Part-D) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	0.325 Sq. KM
Exploration Agency	• Directorate of Geology and Mining, Madhya Pradesh • Qualified Person – P.P. Mishra (Dy. Director Technical)
Morphology of the Area	The area is characterized by an undulating terrain within the Son-Valley region, part of the Vindhyan hills. It includes rugged topography with elevations ranging from 450 to 580 meters above mean sea level. The landscape features ridges and plateaus, with the northern part dominated by Kaimur sandstone and the southwestern area forming a higher plateau of the Bhander series. This diverse morphology reflects the geological complexity and structural stability of the region.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	**2.12 million tonnes** (2119952 tonnes) of limestone, comprising 1337952 tonnes of cement-grade limestone and 782000 tonnes of blendable grade limestone.

3. LOCATION DETAILS

Village	Argat
Tehsil/Taluka	Ramnagar
District	Maihar
State	Madhya Pradesh
Toposheet	63H/3

4. CONNECTIVITY

Rail	The nearest railhead to the Block is Rewa railway station, located approximately 45 kilometers south of Rewa.
Road	Rewa-Shahdol road
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A general North East-South West (NE-SW) strike with a gentle southerly dip ranging between 1° to 2°.
Samples	01 core boreholes were drilled within the block area. (Total meterage – 32.40 m)

Jamodi-Mahanna Sector-I Block (Part-B) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	4.1673 Sq. KM
Exploration Agency	Mineral Exploration and Consultancy Ltd. (Formerly Mineral Exploration Corporation Limited)
Morphology of the Area	The Bhander Plateaus are characterized by isolated mesas and buttes. To the south, the Kaimur ridge continues, reaching a maximum elevation of 704 meters. Within the proposed area, the highest elevation is 313 meters above mean sea level (MSL).
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	78.74 million tonnes (78,741,136.29 tonnes) of limestone resources, comprising 37,617,605.44 tonnes of cement-grade limestone and 41,123,530.8408 tonnes of blendable-grade limestone.

3. LOCATION DETAILS

Village	Barikhurd
Tehsil/Taluka	Raghurajnagar & Phutaundhi
District	Satna
State	Madhya Pradesh
Toposheet	63D/14

4. CONNECTIVITY

Rail	The nearest Railway station is Satna Junction of West Central Zone of Jabalpur region of Indian Railways, which is about 25 km from the proposed study area.
Road	The proposed block is in 20 km south of Satna and in 80km SW from Rewa. It can be reached from Rewa via NH-30 to Maihar and then by following Vijayraghavgarh-Maihar-Satna Road.
Airport	Khajuraho

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Dip and strike data of Bhander Limestone has been recorded from the outcrops as well as from the mine / quarry sections. Stike of the formation is almost E-W with dip varying from horizontal 0º to 3º with dip direction towards south to south-east.
Samples	Boreholes – 25 Core borehole (Total meterage – 829.50 m)

Jamodi-Mahanna Sector-II Block (Part-B) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	2.6415 Sq. KM
Exploration Agency	Mineral Exploration and Consultancy Ltd. (Formerly Mineral Exploration Corporation Limited)
Morphology of the Area	The Bhander Plateaus are characterized by isolated mesas and buttes. To the south, the Kaimur ridge continues, reaching a maximum elevation of 704 meters. Within the proposed area, the highest elevation is 313 meters above mean sea level (MSL).
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	52.11 million tonnes (52112617.59 tonnes) of limestone, comprising 26576849.79 tonnes of cement-grade limestone and 25535767.80 tonnes of blendable grade limestone.

3. LOCATION DETAILS

Village	Barikhurd
Tehsil/Taluka	Raghurajnagar & Phutaundhi
District	Satna
State	Madhya Pradesh
Toposheet	63D/14

4. CONNECTIVITY

Rail	The nearest Railway station is Satna Junction of West Central Zone of Jabalpur region of Indian Railways, which is about 25 km from the proposed study area.
Road	The proposed block is in 20 km south of Satna and in 80km SW from Rewa. It can be reached from Rewa via NH-30 to Maihar and then by following Vijayraghavgarh-Maihar-Satna Road.
Airport	Khajuraho

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Dip and strike data of Bhander Limestone has been recorded from the outcrops as well as from the mine / quarry sections. Stike of the formation is almost E-W with dip varying from horizontal 0º to 3º with dip direction towards south to south-east.
Samples	Boreholes – 17 Core borehole (Total meterage – 596.50 m)

Jamai-Mahanna Sector-III Block (Part-B) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	0.7454 Sq. KM
Exploration Agency	Mineral Exploration and Consultancy Ltd. (Formerly Mineral Exploration Corporation Limited)
Morphology of the Area	The Bhander Plateaus are characterized by isolated mesas and buttes. To the south, the Kaimur ridge continues, reaching a maximum elevation of 704 meters. Within the proposed area, the highest elevation is 313 meters above mean sea level (MSL).
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	29.93 million tonnes (29928476.16 tonnes) of limestone, comprising 20682627.07tonnes of cement-grade limestone and 9245849.09tonnes of blendable grade limestone.

3. LOCATION DETAILS

Village	Barikhurd
Tehsil/Taluka	Raghurajnagar & Phutaundhi
District	Satna
State	Madhya Pradesh
Toposheet	63D/14

4. CONNECTIVITY

Rail	The nearest Railway station is Satna Junction of West Central Zone of Jabalpur region of Indian Railways, which is about 25 km from the proposed study area.
Road	The proposed block is in 20 km south of Satna and in 80km SW from Rewa. It can be reached from Rewa via NH-30 to Maihar and then by following Vijayraghavgarh-Maihar-Satna Road.
Airport	Khajuraho

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Dip and strike data of Bhander Limestone has been recorded from the outcrops as well as from the mine / quarry sections. Stike of the formation is almost E-W with dip varying from horizontal 0º to 3º with dip direction towards south to south-east.
Samples	Boreholes – 05 Core borehole (Total meterage – 287.0 m)

Naubasta-Kolard Part-A (Padriya_Rajarwara_ Khamhariya Kala) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	5.6928 Sq. KM
Exploration Agency	Mineral Exploration and Consultancy Ltd. (Formerly Mineral Exploration Corporation Limited)
Morphology of the Area	The morphology of the Naubasta-Kolard Block is characterized by a gentle undulating terrain, forming part of the Vindhyachal range. The area consists of low ridges and valleys, with elevations ranging up to 382 meters above mean sea level (MSL). The block is predominantly covered with soil and alluvium, with limited rock exposures.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	149.70 million tonnes (149,703,193.26 tonnes). This includes 109,286,495.66 tonnes of cement-grade limestone and 40,416,697.60 tonnes of blendable-grade limestone.

3. LOCATION DETAILS

Village	Padariya, Rajarwara, Khamhariya Kala, Chhinda, patna, Damha, kolard&Nauwasta
Tehsil/Taluka	Nagod
District	Satna
State	Madhya Pradesh
Toposheet	63D/10

4. CONNECTIVITY

Rail	The nearest railhead to the Naubasta-Kolard Block is Satna Junction, located approximately 25 km from the exploration area
Road	The block area is accessible by NH 39, with the nearest town being Nagod, located about 15 km from the block. The area is well-connected by motorable and metalled roads
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A general East-West (E-W) strike with a gentle southerly dip ranging between 3° to 10°. The strata are horizontally to sub-horizontally bedded, reflecting a stable geological setting with minimal tectonic disturbance. This configuration was confirmed through systematic drilling, geological mapping, and floor contour analysis.
Samples	21 core boreholes (928m) were drilled within the block area, and 10 core boreholes(519m) outside the block, making a total of 31 core boreholes used for resource estimation. (Total meterage – 1447 m)

Naubasta-Kolard Part A (Damha_Barethiya&Kothar) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	1.2759 Sq. KM
Exploration Agency	Mineral Exploration and Consultancy Ltd. (Formerly Mineral Exploration Corporation Limited)
Morphology of the Area	The morphology of the Naubasta-Kolard Block is characterized by a gentle undulating terrain, forming part of the Vindhyachal range. The area consists of low ridges and valleys, with elevations ranging up to 382 meters above mean sea level (MSL). The block is predominantly covered with soil and alluvium, with limited rock exposures.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	69.39 million tonnes (69394507 tonnes). This includes 32106198.37 tonnes of cement-grade limestone and 37288308.64 tonnes of blendable-grade limestone.

3. LOCATION DETAILS

Village	Dhara, Barethiya&Kothar
Tehsil/Taluka	Nagod
District	Satna
State	Madhya Pradesh
Toposheet	63D/10

4. CONNECTIVITY

Rail	The nearest railhead to the Naubasta-Kolard Block is Satna Junction, located approximately 25 km from the exploration area
Road	The block area is accessible by NH 39, with the nearest town being Nagod, located about 15 km from the block. The area is well-connected by motorable and metalled roads
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A general East-West (E-W) strike with a gentle southerly dip ranging between 3° to 10°. The strata are horizontally to sub-horizontally bedded, reflecting a stable geological setting with minimal tectonic disturbance. This configuration was confirmed through systematic drilling, geological mapping, and floor contour analysis.
Samples	21 core boreholes (928m)were drilled within the block area, and 10 core boreholes(519m) outside the block, making a total of 31 core boreholes used for resource estimation. (Total meterage – 1447 m)

Naubasta-Kolard Part B (Helaundha) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	2.5225 Sq. KM
Exploration Agency	Mineral Exploration and Consultancy Ltd. (Formerly Mineral Exploration Corporation Limited)
Morphology of the Area	The morphology of the Naubasta-Kolard Block is characterized by a gentle undulating terrain, forming part of the Vindhyachal range. The area consists of low ridges and valleys, with elevations ranging up to 382 meters above mean sea level (MSL). The block is predominantly covered with soil and alluvium, with limited rock exposures.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	47.17 million tonnes (47169482.20 tonnes). This includes 36648807.80 tonnes of cement-grade limestone and 10520674.40 tonnes of blendable-grade limestone.

3. LOCATION DETAILS

Village	Helaundha
Tehsil/Taluka	Nagod
District	Satna
State	Madhya Pradesh
Toposheet	63D/10

4. CONNECTIVITY

Rail	The nearest railhead to the Naubasta-Kolard Block is Satna Junction, located approximately 25 km from the exploration area
Road	The block area is accessible by NH 39, with the nearest town being Nagod, located about 15 km from the block. The area is well-connected by motorable and metalled roads
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A general East-West (E-W) strike with a gentle southerly dip ranging between 3° to 10°. The strata are horizontally to sub-horizontally bedded, reflecting a stable geological setting with minimal tectonic disturbance. This configuration was confirmed through systematic drilling, geological mapping, and floor contour analysis.
Samples	09 core boreholes were drilled within the block area. (Total meterage – 280.00 m)

Baghreli Bauxite & Aluminious Laterite Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Bauxite & Aluminious Laterite (Gibbsite & boehmite & other associated minerals: kaolinite, anatase, hematite, and quartz)
Area Sq. Km.	5.0157 Sq. KM
Exploration Agency	Geological Survey of India, SU: Madhya Pradesh. Government of India, Ministry of Mines.
Morphology of the Area	The study area forms part of Amarkantak plateau and is marked by pronounced relief with high central tableland lying amidst low elevation plain area. The central plateau is irregular in shape and is dissected by numerous streams. It has flat top marked by thin soil cover and steep scarps developed along the edges overseeing narrow valleys. The low elevation mounds are occupied by Deccan basalt whereas higher elevations have extensive laterite/bauxite cover.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	• Total geological resources of aluminous laterite is 0.333 million tonnes with average grade is 41.03% Al2O3. 2. • Total estimated ore resource for Bauxite is 0.719 million tonnes with average grade is 48.50% Al2O3

3. LOCATION DETAILS

Village	Baghreli
Tehsil/Taluka	Bajag
District	Dindori
State	Madhya Pradesh
Toposheet	64F/05 & 64F/06

4. CONNECTIVITY

Rail	Anuppur Junction (78 kms. approx.)
Road	State Highway MP SH 22
Airport	Jabalpur

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Occur on all the flat-topped plateaus. The plateau tops are generally covered with soil, but for the edges where bauxite and laterite crop out. It is also exposed along the slope of the plateau near plateau top. It is present between elevations of about 995m to 1030m above mean sea level. Bauxite present at lower elevations is clastic in nature.
Samples	NA`

Bhilapar Manganese & Dolomite Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Manganese Ore and Dolomite
Area Sq. Km.	0.09037 Sq. KM
Exploration Agency	Shri S.P. Mahakud, Consultant Geologist, Plot No-9A, Utkarsh Nagar, Katol Road, Nagpur-440013 (MS)
Morphology of the Area	The area in general has a rugged topography with linear ridges and valleys and forms part of the Godavari Basin. The ridges trend is roughly in ENE to NE. The general elevation level varies from 355m to 530m. The ridges gain height towards Warpani Reserve Forest in the east.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	• Resource of Manganese Ore in total prospected area as per prospecting report: 63000 Tonnes • Resource of Dolomite in total prospected area as per prospecting report: 161280 Tonnes

3. LOCATION DETAILS

Village	Bhilapar
Tehsil/Taluka	Sausar
District	Chhindwara
State	Madhya Pradesh
Toposheet	55K/14

4. CONNECTIVITY

Rail	Nearest Railway station is Sausar which is located on Nagpur Chhindwara Railway Station of Central Eastern Railway. The railway station is located at about eight kms due N.W. of the area.
Road	The Bhilapar Village in Chhindwara district is located 7km ENE of Lodhikhera and 1.5km SE of Vairagarh. The village is approachable by a fair weather road from Sindewani which is located on the all season KhapaSindewani road.
Airport	Nagpur

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Manganese= trend of ENE-WSW to E-W with steep dip of 80° to north. Dolomite= trend of ENE-WSW to E-W having steep to moderate dips to northerly and southerly.
Samples	NA`

Botejhari Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Manganese
Area Sq. Km.	0.06094 Sq. KM
Exploration Agency	K.G. Bhoskar (RQP) prepared feasibility report for Chandrakant Jatakiya (lessee).
Morphology of the Area	NA
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	Total ore resource/ reserve have been estimated over an area of 6.094ha up to a depth of -m is 65125 tonnes on the basis of 2 boreholes intersection. Northern band = 39375 tonnes Southern band= 25750 tonnes.

3. LOCATION DETAILS

Village	Botejhari
Tehsil/Taluka	Waraseoni
District	Balaghat
State	Madhya Pradesh
Toposheet	NA

4. CONNECTIVITY

Rail	NA
Road	The village Botejhari is located about 2 kms due north of Budbuda village which lies about 20 kms from Katangi on Katangi-Waraseoni.The lease area is connected by a 2kms long all weather (partly tarred) road to Botejhari.
Airport	NA

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	E-W to ENE-WSW with 400 -600 dips towards south. Beds are repeated folded.
Samples	4 boreholes (vertical boreholes)

Dhamani Nana Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Manganese
Area Sq. Km.	0.0470 Sq. KM
Exploration Agency	Sh. Indraneel Dawande (RQP) prepared prospecting report for M/s Jhabua Ferro Alloys.
Morphology of the Area	Topographically the prospecting area is a part of the moderate undulating rolling topography; the highest elevation is of 360m at the top of the SW mound while lowest one is of 340 m towards the south direction.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	Total in situ geological Inferred resources in the block over area of 4.70 ha is 44887 tonnes.

3. LOCATION DETAILS

Village	Dhamani Nana
Tehsil/Taluka	Ranapur
District	Jhabua
State	Madhya Pradesh
Toposheet	46J/6

4. CONNECTIVITY

Rail	The nearest railway station is Meghnagar on Bhopal-Ahemadabad train route and distance from the Meghnagar to PL area is just 30 km on Meghnagar Jhabua – Dahod road.
Road	The PL hold area located at 32 km in the NW direction from the district The PL hold area Dhamninana is located at a distance of 20 km in the SW direction from the district headquarter Jhabua, the accessibility of the area is by road, one has to travel on Jhabua-Dahod state highway up to Ranapur village which is about 17 km then has to take the north-west turn for PL area which is about 3 Kuchcha road. The approachability is by means of regular buses, matadors, private taxis which are easily available up to Dhamninana village.
Airport	Indore

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Structural point of view the strike in the area is N200 - 300W-S200 -300E with 300 -550 dips towards SW.
Samples	Two vertical boreholes (total meterage 27.00m)

Kehalpur (East) Basemetal (Zn) Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Base metals (Zn)
Area Sq. Km.	0.573 Sq. KM
Exploration Agency	Geological Survey of India
Morphology of the Area	Physiographically, the present study area is almost plain land with small isolated hillock near Bargaon and Khajri. Gentle undulation can be marked all around in Kehalpur area. Vein quartz, metabasalt, altered metarhyolite form slightly elevated topography whereas gneissic granites, quartz mica schist occupy the plain land. The highest peak nearer to the study is at Bhawratekra hillock having triangulation height of 738m. The elevation (RL) difference in Kehalpur block varies from 702m to 680m.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	At 0.2% Zn cut-off, estimated resource is 3.158 million tons with average grade 0.316% Zn and average width 31.55m over a strike length of 486.25m.

3. LOCATION DETAILS

Village	Kehalpur Village
Tehsil/Taluka	Multai Tehsil
District	Betul
State	Madhya Pradesh
Toposheet	55K/5

4. CONNECTIVITY

Rail	Multai, 28 km. The prospect can also be approached from Bordehi railway station on Amla–Chhindwara section situated at a distance of 8.5 km.
Road	Boredehi–Multai Road
Airport	Nagpur

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Structural point of view the strike in the area is N200 - 300W-S200 -300E with 300 -550 dips towards SW.
Samples	Two vertical boreholes (total meterage 27.00m)

Kubri Limestone and Bauxite Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Limestone and Bauxite
Area Sq. Km.	0.12440 Sq. KM
Exploration Agency	• Prospecting carried out by M/s Ore & Mineral Processors, Katni • Prospecting report prepared by Balram Singh Associates Pvt Ltd, Chopra Colony, P.O.-Maihar, Distt-Satna (MP) Pin-485771
Morphology of the Area	The PL area is undulating gently sloping towards south west. The highest elevation is 108m RL towards North-East & the lowest elevation in 88m RL towards South-West.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Bauxite= 386400 Tonnes (Estimated from the old trench data over an area of 4 Ha which is part of the 100Ha as indicated resource)

3. LOCATION DETAILS

Village	Kubri,Piprahat, BhadanpurDakshin Patti and Deori
Tehsil/Taluka	Maihar
District	Satna
State	Madhya Pradesh
Toposheet	63 D/16

4. CONNECTIVITY

Rail	The nearest rail head is Maihar at a distance of about 22 km on Jabalpur- Allahabad section of Western Central Railway.
Road	Maihar-Bhadanpur-Kymore approach road upto village Jhirraha which is about 21 kms from Maihar. From turning, the prospected area is about 1 kms towards south direction
Airport	Jabalpur

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Regional Strike: NNE-SSW
Samples	02 Nos, Total meterage-75.0 m

Selarpur - Nawaliya Basemetal (Copper, Lead & Zinc) Block

1. FEATURES

Concession Type	Composite Licence
Mineral	Basemetal (Copper, Lead & Zinc)
Area Sq. Km.	2.6446 Sq. KM
Exploration Agency	Geological Survey of India, SU: Madhya Pradesh. Government of India, Ministry of Mines.
Morphology of the Area	The area are generally flat to hilly.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Basemetal (Copper, Lead & Zinc)

3. LOCATION DETAILS

Village	Selarpur, Nawaliya
Tehsil/Taluka	Bahoriband
District	Katni
State	Madhya Pradesh
Toposheet	64A/06

4. CONNECTIVITY

Rail	The nearest railway station is Sleemanabad road railway station and Sansarpur railway station.
Road	It is approximately 86 km away from Jabalpur and 40 km from Katni. The area is well connected by both fourlane road (NH 30) and also by a broadgauge railway (Jabalpur-Allahabad section of Central Railway) with Katni in the north-east and Jabalpur to the southwest. Nearest railway stations are Sleemanabad road railway station and Sansarpur railway station. Regular bus services are available from Sleemanabad to Jabalpur and Katni.
Airport	The nearest airport is at Jabalpur at a distance of about 80 km (approx.).

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The field evidences show that the rocks of Mahakoshal Group bear imprints of three phases of plastic deformation events (D1, D2 and D3). The planar elements of first and second deformation are well pronounced which are responsible for the regional ENE-WSW trend of the Mahakoshal belt.
Samples	NA

Bagda Sawarsa Basemetal (Lead, Zinc, Copper and Silver)

1. FEATURES

Concession Type	Composite License
Mineral	Basemetal (Lead, Zinc, Copper, Silver and associated minerals)
Area Sq. Km.	5.75 Sq. KM
Exploration Agency	Geological Survey of India
Morphology of the Area	Physiographically, the area is plain area with cultivated Land.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	NA

3. LOCATION DETAILS

Village	Bagda- Sawasra
Tehsil/Taluka	Khategaon
District	Dewas
State	Madhya Pradesh
Toposheet	55B/14

4. CONNECTIVITY

Rail	Harda on the Itarsi-Bhusaval Section ~ 25 KM
Road	Bagda village is located about 8km to the west of Harda- Indore state highway and about 10km SW of Khategaon in Dewas district, M.P. The Sawasri village is located at 2.5 km west of Harda-Indore road, 8 km SE of Khategaon, a tahsil town in Dewas district, MP
Airport	Indore Airport ~ 125 km

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	In Bagda Sawarsa basemetal block, mineralization is mainly associated with quartz veins intruded within Harda Granitoids
Samples	a total sixteen BRS samples have been collected and Cu: Min: <10ppm, Max: 1235 ppm, Pb: Min: <10ppm, Max: 1.6 %, Zn: Min: <10ppm, Max: 830 ppm, Au: Min: <25 ppb, Max: 45ppb and Ag: Min: <1ppm, Max: 21ppm recorded during G4 Investigation, FS 2019-20.

Baranjh Pakkatola Aluminous Laterite and Bauxite Block

1. FEATURES

Concession Type	Composite License
Mineral	Bauxite and Aluminous Laterite
Area Sq. Km.	5.0896 Sq. KM
Exploration Agency	Geological Survey of India
Morphology of the Area	Physiographically, Area mainly exhibits ENE-WSW trending extensive resistant litho-units that form linear ridges in west-central part of the area. Ridges formed by resistant litho-units are covered by widespread intense vegetation. A high resistant litho-units forming flat topped plateau have also been observed in the south-eastern part of the area.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	The tentative estimated resource of Bauxite 2.70519 MT in 0.2941 in sq. km area with average grade of 35.8% -Al2O3 and 5%- SiO2. Whereas Aluminous Laterite is 10.05123 MT in 0.575 in sq. km area with average grade of 28.23% -Al2O3 and 7.78%-SiO2 in the proposed block.

3. LOCATION DETAILS

Village	Baranjh, Pakkatola
Tehsil/Taluka	Pushparajgarh
District	Anuppur
State	Madhya Pradesh
Toposheet	64F/05

4. CONNECTIVITY

Rail	Anuppur 70 km. approx.
Road	Benibari-Shahdol and Dindori-Shahdol and Shahdol -Amarkantak road.
Airport	Jabalpur

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	A total seven polygons of Aluminous laterite and Bauxite were traced during the large-scale mapping. Aluminous laterite/bauxite capping is observed mainly as detached bodies in NE-SW trending high hills
Samples	A total 14 nos. of BRS have been collected from proposed block and the analytical rock chip samples (BRS) varies from 24.43 % to 47.58 % Al2O3.

Gulhariya Basemetal (Lead And Copper) Block

1. FEATURES

Concession Type	Composite License
Mineral	Basemetal (Lead, Copper and associated minerals)
Area Sq. Km.	10.3334 Sq. KM
Exploration Agency	Geological Survey of India, SU: Jabalpur, Madhya Pradesh, Government of India, Ministry of Mines
Morphology of the Area	Physiographically, the area is represented by hilly and rugged terrain with a series of E-W trending ridges.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	NA

3. LOCATION DETAILS

Village	Gulhariya
Tehsil/Taluka	Chitrangi
District	Singrauli
State	Madhya Pradesh
Toposheet	63L/11

4. CONNECTIVITY

Rail	Singrauli 20km. approx.
Road	Singrauli-Chitrangi

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Near Gulhariya village within a white quartz vein (about 325m in length & trending E-W) stains of malachite and grains of galena has been observed
Samples	During large scale mapping, 10 nos. of bed rock samples were collected.

Harsa-1 Diamond Block

1. FEATURES

Concession Type	Composite License
Mineral	Diamond
Area Sq. Km.	12.4 Sq. KM
Exploration Agency	Geological Survey of India
Morphology of the Area	Area forms part of Bundelkhand Granitoid Complex and is characterized by rugged terrain with isolated hillocks. The highest point is 258 m above MSL.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	NA

3. LOCATION DETAILS

Village	Harsa, Pahari, Surajpura, Rajmota, Bagoha, Salaia, Nahari, Dhawar, Bharwa and Mau Manasia, Panna and Chhatarpur districts (M.P.)
Tehsil/Taluka	Ajaygarh and Rajnagar
District	Panna & Chhatarpur
State	Madhya Pradesh
Toposheet	63D/01

4. CONNECTIVITY

Rail	Nearest railway station is situated in Rajnagar, Khajuraho and Chhatarpur
Road	Metalled roads are passing through the area

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Based on the characterization of recorded Kimberlite Indicator Minerals (KIMs) Harsa 1 block area appears promising and indicates very proximal primary source hidden somewhere at shallow depth.
Samples	NA

Parihasi Basemetal (Lead, Copper and Silver) Block

1. FEATURES

Concession Type	Composite License
Mineral	Basemetal (Lead, Copper, Silver and associated minerals)
Area Sq. Km.	9.6986 Sq. KM
Exploration Agency	Geological Survey of India
Morphology of the Area	Physiographically the area is represented by hilly and rugged terrain with a series of ENE-WSW trending hills.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	NA

3. LOCATION DETAILS

Village	Parihasi
Tehsil/Taluka	Deosar
District	Singrauli
State	Madhya Pradesh
Toposheet	63L07

4. CONNECTIVITY

Rail	Singrauli Railway Station ~ 31 KM
Road	NH-39
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Basemetal mineralization is noticed near Parihasi and east of Bhalua villages. Sulphide mineralization is mainly in the form of disseminated grains and specks in white quartz veins Near Parihasi village within white quartz vein (about 180m in length & trending- N70°E) stains of malachite, grains of galena and few grains of arsenopyrite is observed.
Samples	A total 10 trench samples were collected, and analytical values are- Au (34ppb to 110ppb), ΣREE (0.81-29.71 ppm), and Cu (70ppm to 0.37%) & Pb (20ppm to 510ppm).

Bhalwar Aluminous Laterite Block

1. FEATURES

Concession Type	Composite License
Mineral	Aluminous Laterite
Area Sq. Km.	2.0112 Sq. KM
Exploration Agency	Geological Survey of India, SU: Jabalpur, Madhya Pradesh, Government of India, Ministry of Mines
Morphology of the Area	Physiographically, Area mainly exhibits ENE-WSW trending extensive resistant litho-units that form linear ridges in west-central part of the area.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	No resources were estimated for iron and manganese.

3. LOCATION DETAILS

Village	Bhalwar
Tehsil/Taluka	Pushparajgarh
District	Anuppur
State	Madhya Pradesh
Toposheet	64F/05

4. CONNECTIVITY

Rail	Anuppur ,about 70 km and Shahdol Road of South East Central Railway also.
Road	The block area is well connected by Benibari-Shahdol and Dindori-Shahdol and Shahdol -Amarkantak road. The areais 30km (approx.) far from Dindori city situated in the west direction whereas Shahdol, Amarkantak and Anuppur are 70km (approx.) away.
Airport	Jabalpur ~ 140 KM

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The basaltic flow of Deccan Trap capped by laterite cover accounts for the bauxite occurrences in the block area. Near Bhalwar and Charkumar village, it occurs in the small mounds and hills.
Samples	6 nos. BRS are collected. The values of Al2O3 and Fe2O3 in BRS are ranging from 17.31%–39.08% and 31.38%–53.08%.

Byodihar Gold and Basemetal (Lead & Silver) Block

1. FEATURES

Concession Type	Composite License
Mineral	Gold, Basemetal (Lead & Silver and associated minerals)
Area Sq. Km.	9.7298 Sq. KM
Exploration Agency	Geological Survey of India
Morphology of the Area	Physiographically the area is represented by hilly and rugged terrain with a series of ENE-WSW trending hills.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	NA

3. LOCATION DETAILS

Village	Byodihar, Badgad, Hathipathar
Tehsil/Taluka	Chitrangi
District	Singrauli
State	Madhya Pradesh
Toposheet	63L/11

4. CONNECTIVITY

Rail	Singrauli Railway Station ~ 40 KM
Road	Singrauli-Dudhmaniya-Amliwah
Airport	Rewa

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Byodhar gold and basemetal block lies in western extension of the Chakariya gold mineralised zone in Amalihwa- Hathipathar-Kapurdei areas. The sulphide mineralisation is mainly associated with quartz veins and is structurally controlled
Samples	Two main events of deformation have been noticed which are responsible for the regional WNW-ESE trend of the Mahakoshal rocks

Mining Lease (ML) Blocks of Tamil Nadu

Adanakurichi Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Cement Grade Limestone
Area Sq. Km.	1.5436 Sq. Km (154.36 Ha)
Exploration Agency	Mineral Exploration Consultancy Limited (MECL)
Morphology of the Area	The morphology of the Adanakurichi Limestone Block is gently sloping, with the limestone deposits spread across the block in a relatively uniform manner.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 162.04 Million Tons Average CaO%: 47.7

3. LOCATION DETAILS

Village	Adanakurichi, Manakudayan,
Tehsil/Taluka	Sendurai
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/7

4. CONNECTIVITY

Rail	Pennadam, 10 Km
Road	10 Km from Sendurai, Taluka town
Airport	120 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The limestone in the Adanakurichi block is primarily cement-grade and is found in a gently sloping terrain. The mineralized zones extend across the block with consistent strike and dip. The limestone deposit is relatively homogeneous, with uniform distribution of key constituents such as CaO.
Samples	A total of 7 boreholes were drilled in the Adanakurichi block, with a cumulative depth of 711.50 meters. The boreholes were spaced at distances of 400 meters and greater, ensuring a thorough assessment of the ore body.

Alathiyur Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Cement Grade Limestone
Area Sq. Km.	1.3972 Sq. Km (139.72 Ha)
Exploration Agency	Mineral Exploration Consultancy Limited (MECL)
Morphology of the Area	The Alathiyur Limestone Block has a gently sloping terrain, with the limestone deposits extending uniformly across the area.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 103.25 Million Tons Average CaO%: 45.3

3. LOCATION DETAILS

Village	Alathiyur and Adhanakurichi
Tehsil/Taluka	Sendurai
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/7

4. CONNECTIVITY

Rail	Pennadam, 10 Km
Road	10 Km from Sendurai, Taluka town
Airport	120 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The limestone deposits in the Alathiyur block are primarily cement-grade limestone and are spread across the area in a gently sloping manner. The mineralization is relatively consistent, and the limestone layers show uniformity in the composition.
Samples	A total of 7 boreholes have been drilled in the Alathiyur Limestone Block, with a total depth of 590 meters. Borehole spacing was maintained at 400 meters and greater to ensure a thorough evaluation of the mineral distribution.

Anandwadi Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Cement Grade Limestone
Area Sq. Km.	1.3416 Sq. Km (134.16 Ha)
Exploration Agency	Mineral Exploration Consultancy Limited (MECL)
Morphology of the Area	The terrain of the Anandawadi Limestone Block is gently sloping, with the limestone deposits spread across the area in a continuous manner.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 19.36 Million Tons Average CaO%: 42.5

3. LOCATION DETAILS

Village	Anandwadi
Tehsil/Taluka	Sendurai
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/4

4. CONNECTIVITY

Rail	Ariyalur, 25 Km
Road	10 Km from Sendurai, Taluka town
Airport	107 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The limestone deposits in the Anandawadi block are primarily cement-grade limestone, and the mineralization is spread across the gently sloping terrain of the block. The mineralized zones are consistent across the block, with no significant variation in grade across the area.
Samples	A total of 7 boreholes were drilled, totaling 354 meters in depth. The borehole density was maintained at 400 meters to adequately assess the mineral distribution across the block.

Unjini-Anandwadi Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	41.36 Ha
Exploration Agency	Mineral Exploration Consultancy Limited (MECL)
Morphology of the Area	The area is gently sloping, with limestone deposits occurring in three mineralized zones, trending NE-SW with a dip of 40 to 50 degrees towards the east/southeast.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 14.36 Million Tons Average CaO%: 43.3

3. LOCATION DETAILS

Village	Unjini and Anandwadi
Tehsil/Taluka	Sendurai
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/4

4. CONNECTIVITY

Rail	Ariyalur ~ 25 km
Road	10 km from Sendurai, Taluka town
Airport	Tiruchirappalli ~ 107 km

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Limestone occurs in three mineralized zones with a strike direction of NE-SW and a dip of 40 to 50 degrees (due east/south-east).
Samples	A total of 4 boreholes were drilled in the Unjini-Anandwadi Limestone Block, totaling 189.50 meters in depth. The borehole density was maintained at 400 meters to assess the distribution and quality of the limestone. The core samples collected were tested for key components such as CaO, MgO, and SiO2. The results indicate that the limestone is of high quality, with an average CaO content of 43.3%.

Periyathirukonam Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Cement Grade Limestone
Area Sq. Km.	1.0205 Sq. Km (102.05 Ha)
Exploration Agency	Geological Survey of India
Morphology of the Area	Gently Undulating
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Resource & Grade: Mineable Resources: 22.39 Million Tons Average CaO%: 49.8

3. LOCATION DETAILS

Village	Reddipalayam, Periyathirukonam, and Nagamangalam
Tehsil/Taluka	Ariyalur
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/04

4. CONNECTIVITY

Rail	Ariyalur, 12 Km
Road	Kilpalur-Jayankondam road runs south of the area
Airport	120 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The limestone deposits are cement-grade, with a NE-SW strike and a dip of 30 to 50 degrees towards the east.
Samples	9 boreholes, totaling 607.8 meters. Borehole density: 400 meters

A-03 Reddipalayam Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	0.3497 Sq. Km (34.9707 Ha)
Exploration Agency	M/s KIOCL Limited
Morphology of the Area	The area is gently undulating with limestone deposits.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Resource & Grade: Mineable Resources: 25.2 Million Tons Average CaO%: 49.5

3. LOCATION DETAILS

Village	Reddipalayam
Tehsil/Taluka	Ariyalur
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/04

4. CONNECTIVITY

Rail	Ariyalur ~ 15 km
Road	Adjacent to National Highway 81 and State Highway 139
Airport	Tiruchirappalli ~ 90 km

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Limestone occurs in two mineralized zones with a strike direction from N-S to NNE-SSW and a dip of 50 to 100 degrees towards the east.
Samples	02 boreholes drilled, total meterage of 126.05 meters.

A-06 Reddipalayam (Sub Blocks A, B) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Limestone
Area Sq. Km.	0.6351 Sq. Km (63.51.30 Ha)
Exploration Agency	M/s KIOCL Limited
Morphology of the Area	The morphology of the area is gently undulating, with limestone deposits spread across the block. The topography is characterized by a gradual rise in elevation, without any significant peaks or valleys.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 35.21 Million Tons Average CaO%: 48.8

3. LOCATION DETAILS

Village	Reddipalayam
Tehsil/Taluka	Ariyalur
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/04

4. CONNECTIVITY

Rail	Ariyalur, 15 Km
Road	Block is situated adjacent to National Highway 81 and State Highway 139
Airport	90 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The cement-grade limestone in the A-06 Reddipalayam block is primarily found in a gently undulating terrain. The limestone deposit is continuous across both Sub Block A and Sub Block B, with a uniform strike and dip. The average thickness of the limestone is estimated to be around 38.41m. The limestone layers are relatively consistent across the blocks, but further confirmation of the depth continuity and variations in grade will be obtained through additional drilling.
Samples	A total of 4 boreholes were drilled in the A-06 Reddipalayam block, totaling 324.90 meters in depth. The borehole samples were collected systematically to confirm the continuity of the cement-grade limestone in both Sub Block A and Sub Block B. The drilling density was kept at 400 meters to ensure a proper understanding of the ore body distribution and quality across the area. Samples were collected from the boreholes to analyze key components, including CaO, MgO, and SiO2 content, to confirm the resource quality and grade.

A-15 Reddipalayam (Sub Blocks A, B & C) Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Cement Grade Limestone
Area Sq. Km.	1.1681 Sq. Km (116.81.50 Ha)
Exploration Agency	M/s KIOCL Limited
Morphology of the Area	The morphology of the area is gently undulating. The terrain displays a soft, rolling landscape with no prominent ridges or steep slopes. Limestone deposits are found intermittently across the block, with gradual rises in elevation.
Exploration Level	G2

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 8.21 Million Tons Average CaO%: 49.4

3. LOCATION DETAILS

Village	Reddipalayam
Tehsil/Taluka	Ariyalur
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/04

4. CONNECTIVITY

Rail	Ariyalur, 15 Km
Road	Block is situated adjacent to National Highway 81 and State Highway 139
Airport	90 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The limestone deposits in the Reddipalayam block are cement-grade, with a strike direction from N-S to NNE-SSW and an average dip of 7.50 degrees due east.
Samples	A total of 12 boreholes were drilled across the A-15 Reddipalayam block, with a total depth of 832.10 meters. The boreholes were drilled at a density of 400 meters to ensure a comprehensive understanding of the ore body. Core samples were systematically collected from each borehole to assess the quality and distribution of the cement-grade limestone, with key parameters like CaO, MgO, and SiO2 content analyzed. The drilling results indicate that the limestone deposits are consistent across the blocks, but further exploration is necessary to confirm depth and grade variations.

Uchimedu Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Cement Grade Limestone
Area Sq. Km.	0.187859 Sq. Km (18.7859 Ha)
Exploration Agency	Geological Survey of India
Morphology of the Area	The terrain of the Uchimedu Limestone Block is characterized by low dip, with a relatively gentle slope across the region. The topography consists of rolling hills and minor ridges, without significant elevation changes.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 3.87 Million Tons Average CaO%: 46.6

3. LOCATION DETAILS

Village	Nandapaddi
Tehsil/Taluka	Vriddhachalam
District	Cuddalore
State	Tamil Nadu
Toposheet	58 M/04

4. CONNECTIVITY

Rail	Vriddhachalam, 10 Km
Road	Ulundurpettai, 25 Km
Airport	130 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The limestone deposits in the Uchimedu block are cement-grade, with a strike direction of NE-SW and a dip of 30° towards S75°E.
Samples	25 boreholes, totaling 982 meters. Borehole density: 400/400+ meters.

Sendurai – Maravathur Limestone Block

1. FEATURES

Concession Type	Mining Lease
Mineral	Cement Grade Limestone
Area Sq. Km.	1.5459 Sq. Km (154.59 Ha)
Exploration Agency	Mineral Exploration Consultancy Limited
Morphology of the Area	The terrain of the Sendurai – Maravathur Limestone Block is gently sloping. The block is part of a larger region with a consistent surface gradient, which facilitates easy mining operations.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	Mineable Resources: 19.45 Million Tons Average CaO%: 46.9

3. LOCATION DETAILS

Village	Sendurai and Elangaicherry North
Tehsil/Taluka	Sendurai
District	Ariyalur
State	Tamil Nadu
Toposheet	58 M/3 & M/4

4. CONNECTIVITY

Rail	Sendurai, 7 Km
Road	Ulundurpettai, 25 Km
Airport	78 Km from Tiruchirappalli

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The mineralized limestone zone in the Sendurai – Maravathur block is spread across a gently sloping area. The strike direction is ENE WSW, with a dip ranging from 10° to 30° towards the east to southeast.
Samples	5 boreholes, totaling 233 meters. Borehole density: 400/400+ meters.

Composite Licence (CL) Blocks in Offshore Areas by Ministry of Mines

Porbandar Lime Mud Block-1

1. FEATURES

Concession Type	Composite Licence
Mineral	Lime Mud
Area Sq. Km.	66.64
Exploration Agency	Geological Survey of India
Morphology of the Area	The bathymetric contour over the proposed block runs parallel to the coastline (general trend N 315°). Seafloor dipping towards SW. Water depth varies from 80 - 100 m
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	522 million tonnes/ 229,955,947.136 m^3 at CaO 40 % cut off of 46.84%.

3. LOCATION DETAILS

Location	West Coast, Arabian Sea (Plate 1)
NHO Chart Number	21 &22

4. CONNECTIVITY

Rail	Porbandar
Road	National Highway 8B and State Highway 6
Near Coastal Location	Porbandar
Nearest Harbour/Port	Porbandar port
Airport	Porbandar

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The area is within the carbonate platform, the largest topographic feature on the northwestern continental margin of India. The Geophysical study shows a set of discontinuous reflectors parallel to the sea bed, varying from 4 to 26m in thickness.
Principal rock types/Nature of offshore sediments	**Hinterland Domain:** Deccan Basalt **Inner and Mid-Shelf Domain:** Limemud overlain by clay, Aragonite faecal pellets, ooids, Halimeda grains and a few bivalves, benthic and planktic foraminifers
Grid spacing (Sampling)	2km × 2km grid
No. of Vibrocore samples	12 Vibrocore samples

Porbandar Lime Mud Block-2

1. FEATURES

Concession Type	Composite Licence
Mineral	Lime Mud
Area Sq. Km.	69.81
Exploration Agency	Geological Survey of India
Morphology of the Area	The bathymetric contour over the proposed block runs parallel to the coastline (general trend N 315°). Seafloor dipping towards SW. Water depth varies from 100 - 120 m
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	632 million tonnes / 278,414,096.916 m3at CaO 40 % cut off of 49.79%.

3. LOCATION DETAILS

Location	West Coast, Arabian Sea (Plate 1)
NHO Chart Number	21 &22

4. CONNECTIVITY

Rail	Porbandar
Road	National Highway 8B and State Highway 6
Near Coastal Location	Porbandar
Nearest Harbour/Port	Porbandar port
Airport	Porbandar

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The area is within the carbonate platform, the largest topographic feature on the northwestern continental margin of India. The Geophysical study shows a set of discontinuous reflectors parallel to the sea bed, varying from 4 to 26m in thickness.
Principal rock types/Nature of offshore sediments	**Hinterland Domain:** Deccan Basalt **Inner and Mid-Shelf Domain:** Limemud overlain by clay, Aragonite faecal pellets, ooids, Halimeda grains and a few bivalves, benthic and planktic foraminifers
Grid spacing (Sampling)	2km × 2km grid
No. of Vibrocore samples	15 Vibrocore samples

Porbandar Lime Mud Block-3

1. FEATURES

Concession Type	Composite Licence
Mineral	Lime Mud
Area Sq. Km.	66.64
Exploration Agency	Geological Survey of India
Morphology of the Area	The bathymetric contour over the proposed block runs parallel to the coastline (general trend N 315°). Seafloor dipping towards SW. Water depth varies from 120- 160 m
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	558 million tonnes/ 245,814,977.973 m3 at CaO 40 % cut off of 50.89%.

3. LOCATION DETAILS

Location	West Coast, Arabian Sea (Plate 1)
NHO Chart Number	21 &22

4. CONNECTIVITY

Rail	Porbandar
Road	National Highway 8B and State Highway 6
Near Coastal Location	Porbandar
Nearest Harbour/Port	Porbandar port
Airport	Porbandar

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The area is within the carbonate platform the largest topographic feature on the northwestern continental margin of India. The Geophysical study shows a set of discontinuous reflectors parallel to the sea bed, varying from 4 to 26m in thickness.
Principal rock types/Nature of offshore sediments	**Hinterland Domain:** Deccan Basalt **Inner and Mid-Shelf Domain:** Limemud overlain by clay, Aragonite faecal pellets, ooids, Halimeda grains and a few bivalves, benthic and planktic foraminifers
Grid spacing (Sampling)	2km × 2km grid
No. of Vibrocore samples	14 Vibrocore samples

Kollam Construction Sand Block-1

1. FEATURES

Concession Type	Composite Licence
Mineral	Construction Sand
Area Sq. Km.	79
Exploration Agency	Geological Survey of India
Morphology of the Area	The seabed has a gentle slope, water depth varies from 53.3 to 62.5m.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	100.33 million tonnes / 73,233,576.64 m3 up to 2.0m below the sea floor.

3. LOCATION DETAILS

Location	West Coast, Arabian Sea (Plate 1)
NHO Chart Number	21 &22

4. CONNECTIVITY

Rail	Kollam Junction Railway Station
Road	NH-66 connects Kollam with Kochi and Thiruvananthapuram
Near Coastal Location	Kollam
Nearest Harbour/Port	Kollam port
Airport	Thiruvananthapuram International Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The blocks fall in the Inner and mid-shore domains of the Continental shelf off Kerala. Chemical composition of sediments: SiO_2 (78.07%), Al_2O_3 (2.52%), $CaCO_3$ (9.81%) and $MgCO_3$ (1.14%)
Principal rock types/Nature of offshore sediments	**Hinterland Domain:** Charnockites, khondalites, gneisses and migmatites. **Inner and Mid-Shelf Domain:** Unconsolidated sediment dominated by different types of sand.
Grid spacing (Sampling)	2km × 2km grid
No. of Vibrocore samples	32 Vibrocore samples
Sand percentages in the core sediments	24 to 93% with an average of 56% sand

Kollam Construction Sand Block-2

1. FEATURES

Concession Type	Composite Licence
Mineral	Construction Sand
Area Sq. Km.	78
Exploration Agency	Geological Survey of India
Morphology of the Area	The seabed has a gentle slope, water depth varies from 48.4 to 61.4m.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	100.64 million tonnes/ 73,459,854.01 m3 up to 2.0m below the sea floor

3. LOCATION DETAILS

Location	West Coast, Arabian Sea (Plate 1)
NHO Chart Number	221

4. CONNECTIVITY

Rail	Kollam Junction Railway Station
Road	NH-66 connects Kollam with Kochi and Thiruvananthapuram
Near Coastal Location	Kollam
Nearest Harbour/Port	Kollam port
Airport	Thiruvananthapuram International Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The blocks fall in the Inner and mid-shore domains of the Continental shelf off Kerala. **Chemical composition of sediments:** SiO_2 (78.07%), Al_2O_3 (2.52%), $CaCO_3$ (9.81%) and $MgCO_3$ (1.14%)
Principal rock types/Nature of offshore sediments	**Hinterland Domain:** Charnockites, khondalites, gneisses and migmatites. **Inner and Mid-Shelf Domain:** Unconsolidated sediment dominated by different types of sand.
Grid spacing (Sampling)	2km × 2km grid
No. of Vibrocore samples	27 Vibrocore samples
Sand percentages in the core sediments	17 to 87% with an average of 53%

Kollam Construction Sand Block-3

1. FEATURES

Concession Type	Composite Licence
Mineral	Construction Sand
Area Sq. Km.	85
Exploration Agency	Geological Survey of India
Morphology of the Area	The seabed has a gentle slope, water depth varies from 49.3 to 59.0m.
Exploration Level	G3

2. RESOURCE SUMMARY

Resource & Grade	101.45 million tonnes/ 74,051,094.890 m3 up to 2.0m below the sea floor

3. LOCATION DETAILS

Location	West Coast, Arabian Sea (Plate 1)
NHO Chart Number	221

4. CONNECTIVITY

Rail	Kollam Junction Railway Station
Road	NH-66 connects Kollam with Kochi and Thiruvananthapuram
Near Coastal Location	Kollam
Nearest Harbour/Port	Kollam port
Airport	Thiruvananthapuram International Airport

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	The blocks fall in the Inner and mid-shore domains of the Continental shelf off Kerala.
Principal rock types/Nature of offshore sediments	**Hinterland Domain:** Charnockites, khondalites, gneisses and migmatites. **Inner and Mid-Shelf Domain:** Unconsolidated sediment dominated by different types of sand.
Grid spacing (Sampling)	2km × 2km grid
No. of Vibrocore samples	27 Vibrocore samples
Sand percentages in the core sediments	23 to 97% with an average of 49% sand

West Sewell Ridge Polymetallic Nodules and Crusts Block - 1

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Polymetallic nodules and crusts
Area Sq. Km.	84.63 sq. km
Exploration Agency	Geological Survey of India
Morphology of the Area	Seabed is characterized by a N-S trending ridge of rugged topography with inferred lineaments, faults and having steep and gentle flanks in the east and west respectively.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Reconnaissance-level mineral exploration established the occurrence of Nodules and crust in the block

3. LOCATION DETAILS

Offshore Region	Great Nicobar Island, EEZ of India
NHO Chart No.	41

4. CONNECTIVITY

Rail	Great Nicobar Island
Road	Port Blair
Airport	Port Blair

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Nodules and crust occur sporadically on seamounts and ridges of West Sewell Ridge as surface occurrences. **Chemical composition of Nodules and Crusts:** Fe2O3 (15.792%), MnO (6.0%), Ba (1022 ppm), Co (744 ppm), Cr (291 ppm), Cu (188 ppm), Ni (2190 ppm), Pb (712.04 ppm), Li (54.71 ppm), V(424.91 ppm), Zn(358.72 ppm), Zr (230.83pm), As (594.25), ∑REE (598.52)
Samples	13 no. of samples

West Sewell Ridge Polymetallic Nodules and Crusts Block - 2

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Polymetallic nodules and crusts
Area Sq. Km.	84.63 sq. km
Exploration Agency	Geological Survey of India
Morphology of the Area	Seabed is characterized by a N-S trending ridge of rugged topography with inferred lineaments, faults and having steep and gentle flanks in the east and west respectively.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Reconnaissance-level mineral exploration established the occurrence of Nodules and crust in the block

3. LOCATION DETAILS

Offshore Region	Great Nicobar Island, EEZ of India
NHO Chart No.	41

4. CONNECTIVITY

Rail	Great Nicobar Island
Road	Port Blair
Airport	Port Blair

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Nodules and crust occur sporadically on seamounts and ridges of West Sewell Ridge as surface occurrences. **Chemical composition of Nodules and Crusts:** Fe_2O_3 (18.5%), MnO (16.0%), Co (1139 ppm), Ni (3267ppm), Cu (301ppm), Zn (473 ppm), Pb (1151ppm), Li (72ppm),Mo (215ppm),V(546ppm),Cr (567ppm), Sr (825ppm), Ba (1873ppm), ∑REE(788).
Samples	10 no. of samples

West Sewell Ridge Polymetallic Nodules and Crusts Block - 3

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Polymetallic nodules and crusts
Area Sq. Km.	84.63 sq. km
Exploration Agency	Geological Survey of India
Morphology of the Area	Seabed is characterized by a N-S trending ridge of rugged topography with inferred lineaments, faults and having steep and gentle flanks in the east and west respectively.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Reconnaissance-level mineral exploration established the occurrence of Nodules and crust in the block

3. LOCATION DETAILS

Offshore Region	Great Nicobar Island, EEZ of India
NHO Chart No.	41

4. CONNECTIVITY

Rail	Great Nicobar Island
Road	Port Blair
Airport	Port Blair

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Nodules and crust occur sporadically on seamounts and ridges of West Sewell Ridge as surface occurrences. **Chemical composition of Nodules and Crusts:** Fe_2O_3(21.90%), MnO(4.25%), Ba(1448.95 ppm), Ni(2758.09 ppm), Co(947.05 ppm), Pb(914.1 ppm), Cr(491.49 ppm), Cu(228.4 ppm), Zn(166.61ppm), Zr(145.3 ppm), V(531.26 ppm), As(635.01ppm), Yb (11.60 ppm), Sc (41.90 ppm), $\sum$REE (797 ppm).
Samples	21 no. of samples

West Sewell Ridge Polymetallic Nodules and Crusts Block - 4

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Polymetallic nodules and crusts
Area Sq. Km.	84.63 sq. km
Exploration Agency	Geological Survey of India
Morphology of the Area	Seabed is characterized by a N-S trending ridge of rugged topography with inferred lineaments, faults and having steep and gentle flanks in the east and west respectively.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Reconnaissance-level mineral exploration established the occurrence of Nodules and crust in the block

3. LOCATION DETAILS

Offshore Region	Great Nicobar Island, EEZ of India
NHO Chart No.	41

4. CONNECTIVITY

Rail	Great Nicobar Island
Road	Port Blair
Airport	Port Blair

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Nodules and crust occur sporadically on seamounts and ridges of West Sewell Ridge as surface occurrences. **Chemical composition of Nodules and Crusts**: Fe2O3 (24.49%), MnO (19.91%), Ba (917.5ppm), Co (626ppm), Cr (140.2ppm), Cu (174.1ppm), Ni (1039ppm), Pb (375ppm), Zn (227.4ppm), Zr (221.2ppm), Sr (458.4ppm), Rb (67ppm), ∑REE (542.4ppm), PGE + Au (122.3ppb).
Samples	34 no. of samples

West Sewell Ridge Polymetallic Nodules and Crusts Block - 5

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Polymetallic nodules and crusts
Area Sq. Km.	84.63 sq. km
Exploration Agency	Geological Survey of India
Morphology of the Area	Seabed is characterized by a N-S trending ridge of rugged topography with inferred lineaments, faults and having steep and gentle flanks in the east and west respectively.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Reconnaissance-level mineral exploration established the occurrence of Nodules and crust in the block

3. LOCATION DETAILS

Offshore Region	Great Nicobar Island, EEZ of India
NHO Chart No.	41

4. CONNECTIVITY

Rail	Great Nicobar Island
Road	Port Blair
Airport	Port Blair

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Nodules and crust occur sporadically on seamounts and ridges of West Sewell Ridge as surface occurrences. **Chemical composition of Nodules and Crusts**: Fe2O3 (17.56%), MnO (18.97%), Ni (3680 ppm), Ba (1651 ppm), Co (771 ppm), Pb (658 ppm), Zn (510 ppm), Cu (367 ppm), V (315 ppm), Cr (37 ppm), ∑REE (652 ppm), PGE + Au (258 ppb).
Samples	10 no. of samples

West Sewell Ridge Polymetallic Nodules and Crusts Block - 6

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Polymetallic nodules and crusts
Area Sq. Km.	84.63 sq. km
Exploration Agency	Geological Survey of India
Morphology of the Area	Seabed is characterized by a N-S trending ridge of rugged topography with inferred lineaments, faults and having steep and gentle flanks in the east and west respectively.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Reconnaissance-level mineral exploration established the occurrence of Nodules and crust in the block

3. LOCATION DETAILS

Offshore Region	Great Nicobar Island, EEZ of India
NHO Chart No.	41

4. CONNECTIVITY

Rail	Great Nicobar Island
Road	Port Blair
Airport	Port Blair

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Nodules and crust occur sporadically on seamounts and ridges of West Sewell Ridge as surface occurrences. Chemical composition of Nodules and Crusts: Fe2O3 (11.5%), MnO (44.6%), Ba (1791 ppm), Co (510 ppm), Cr (241 ppm), Cu (165 ppm), Ni (1086 ppm), Pb (381 ppm),V (131 ppm), Zn (282 ppm), Zr (99.6 ppm), ∑REE (394 ppm), ∑ PGE + Au (475 ppb).
Samples	10 no. of samples

West Sewell Ridge Polymetallic Nodules and Crusts Block - 7

1. FEATURES

Concession Type	Composite Licence (CL)
Mineral	Polymetallic nodules and crusts
Area Sq. Km.	84.63 sq. km
Exploration Agency	Geological Survey of India
Morphology of the Area	Seabed is characterized by a N-S trending ridge of rugged topography with inferred lineaments, faults and having steep and gentle flanks in the east and west respectively.
Exploration Level	G4

2. RESOURCE SUMMARY

Resource & Grade	Reconnaissance-level mineral exploration established the occurrence of Nodules and crust in the block

3. LOCATION DETAILS

Offshore Region	Great Nicobar Island, EEZ of India
NHO Chart No.	41

4. CONNECTIVITY

Rail	Great Nicobar Island
Road	Port Blair
Airport	Port Blair

5. MINERALIZATION & EXPLORATION DETAILS

Mineralization & Geology	Nodules and crust occur sporadically on seamounts and ridges of West Sewell Ridge as surface occurrences. Chemical composition of Nodules and Crusts: Fe2O3(11.31%), MnO (48%), Ba (1454 ppm), Ni (1054.2 ppm), Co (525.3 ppm), Pb (476 ppm), Cu (231.3ppm), Zn (297.46 ppm), Cr (230.45 ppm), Zr (31.36 ppm), V (127.54 ppm), ∑REE (519.53 ppm).
Samples	11 no. of samples

खान मंत्रालय
MINISTRY OF
MINES