PROPOSAL FOR IN PRINCIPLE APPROVAL OF RECONNAISSANCE SURVEY FOR GALLIUM BEARING TITANIFEROUS BAUXITE IN RISEWARA - LODHIWADA BLOCK (G4) [60 sq.km], DISTRICT: BALAGHAT, MADHYA PRADESH.
[Under NMET funding].

COMMODITY: GALLIUM BEARING TITANIFEROUS BAUXITE

BY

Gemcokati Exploration Pvt. Ltd
E-77, MIDC, Ghughus Road,
Chandrapur, Maharashtra- 442406.

Place: Chandrapur
Date: 12.08.2025

E-77, MIDC, Ghughus Road, Chandrapur, Maharashtra- 442406.
www.gemcokati.comPh no: 07172-287200Mail: subrata.sarkar@gemcokati.com

FOR SUBMITTING PROPOSAL FOR UNDERTAKING PRELIMINARY EXPLORATION

	Chandrapur, Dated the 12th August 2025
From:	To:
Subrata Sarkar,	The Director & HoD,
Vice President (Projects & Planning),	National Mineral Exploration Trust, Secretariat, Ministry of Mines,
Gemco Kati Exploration Private Limited	Room No-325 & 326, Wing-F, Udyog Bhawan,
E-77, MIDC Road,	Rafi Ahmed Kidwai Road,
Near Nyara Petrol Bunk,	Rajpath Area, Central secretariat
Chandrapur-442406.	New Delhi – 110011.

Sir,

I/we am/are submitting the following details for granting 'in-principle' approval by NMET on the proposal of reconnaissance or prospecting surveys to NMET under the "Scheme for Engagement of Notified Private Exploration Agencies in Mineral Exploration directly through National Mineral Exploration Trust issued by Ministry of Mines vide OM No.F.No.6/3/2015- NMET/176, New Delhi, dt 27th June'2024.

	1. Name and address of the Applicant	
(a)	Name	**GEMCO KATI EXPLORATION PVT.LIMITED**
(b)	Postal address	Plot No-34, Bapat Nagar, Chandrapur-442401, Maharashtra.
(c)	Telephone No (Office)	07172 - 287200
(d)	Fax No (Office)	07172 – 287200/230562
(e)	Mobile No	**+91 7044208900**
(f)	Telephone No (Residence)	
(g)	E-mail address	**subrata.sarkar@gemcokati.com**
	2. Detail of Accreditation as Private Exploration Agencies and Notification under the proviso to Section 4 (1) of the MMDR Act.	
(a)	Date of accreditation granted by QCI-NABET	16th March'2022
(b)	Date of expiry of accreditation	6th March'2025
(c)	Date of Re-accreditation	23rd April'2025.
(d)	Date of expiry of Re-accreditation	22nd April'2028
(e)	Date of Notification under the proviso to Section 4 (1) of the MMDR Act.	7th April'2022
(f)	Date of expiry of notification	6th March'2025
(g)	Date of Re-notification	18th July 2025
(h)	Date of expiry of Re-notification	22nd April 2028
(i)	Category of the Exploration agency (Category A or B) under Notification	Under category 'A' Exploration Agency.
	3. Location details of the area proposed	
(a)	State	Madhya Pradesh
(b)	District(s)	Balaghat
(c)	Nearby village(s)	Risewara, Lodhiwada, Timkitola
(d)	Survey of India (SOI) Toposheet No (s)	64C/11
(e)	Area in Sq. Km	60 Sq. Km

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(f)	Boundary co-ordinates of the Proposed Block (in Degree Minute Second)	**Risewara-Lodhiwada block (G4)**						
			LONGITUDE			LATITUDE		
		(A)	80°	34’	18.67”	21°	22’	59.04”
		(B)	80°	41’	41.88”	21°	22’	57.88”
		(C)	80°	40’	48.88”	21°	22’	03.55”
		(D)	80°	39’	11.54”	21°	19’	45.62”
		(E)	80°	36’	03.27”	21°	19’	48.45”
		(F)	80°	35’	19.79”	21°	20’	55.73”
		(G)	80°	34’	19.87”	21°	20’	56.78”
	4. Mineral Potential of the area							
(a)	Name of Mineral(s) identified/expected in the area/block	**Risewara-Lodhiwada block (G4)**						
(b)	Basis on which mineral potential of the area has been identified	Please refer enclosed “Summary proposal”						
(c)	List of documents/references relied upon in support of item (b) above	1-Block area on goggle map.						
	5. **Documents to be enclosed with the application**							
(i)	Location of the proposed block demarcated on Survey of India (SOI) Toposheet (s)							
(ii)	Documents mentioned in items 4 (C) above							

Place: - Chandrapur

Date – 12.08.2025

Signature of the applicant

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PROPOSAL FOR IN PRINCIPLE APPROVAL OF RECONNAISSANCE SURVEY FOR GALLIUM BEARING TITANIFEROUS BAUXITE IN RISEWARA- LODHIWADA BLOCK (G4) [60 sq.km], DISTRICT: BALAGHAT, MADHYA PRADESH.
[Under NMET funding].

COMMODITY: GALLIUM BEARING TITANIFEROUS BAUXITE

BY

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Place: Chandrapur
Date: 12.08.2025

GEMCO KATI

Summary of the Block for G4 stage exploration

	Features	Details
	Block ID	RISEWARA-LODHIWADA BLOCK (G4) FOR GALLIUM BEARING TITANIFEROUS BAUXITE.
	Current Exploration Agency	GEMCO KATI EXPLORATION PVT.LTD.
	Commodity	GALLIUM BEARING TITANIFEROUS BAUXITE
	Mineral Belt	Dongargarh Supergroup represents Paleoproterozoic and Mesoproterozoic Volcano-sedimentary sequences. The supergroup has undergone extensive laterization with elevated concentration of V2O5, TiO2 & Ga.
	Completion Period with entire Time schedule to complete the project	8 Months
	Objectives	The current exploration programme (G-4) is formulated based on available ground geological data on the work carried out in the adjacent block under NMET funding and positive validation of Al_2O_3: 22 – 51%, Fe_2O_3: 12 – 60%, TiO_2: 3 -6%, V_2O_5: 0.06 – 0.12%, Sc: 13-30% & Ga: 47-51% from the block area. The programme has the following objective vis-à-vis proposed field components. 1. To carry out the geological and structural mapping on 1:12,500 scale of the block (60 sq km) to delineate various litho-units and their linear/ planar structural features like shear zones, fracture zones and lineaments with special attention to record potential host rocks to, Va, Ti mineralization. 2. To carry out systematic grab/ channel/ grove sampling of bed rocks from the potential mineralized zones. 3. Systematic stream sediments of first and second order streams in the areas overlaying targeted host rocks on need basis. 4. XRF, ICP-MS analysis of major and trace element of selected samples. 5. Petrographic, Ore Micrographic, SEM-EDX & XRD studies of possible host rock. 6. To asses G4 category (334) Va, Ti & Ga prospect in the Block, as per UNFC norms and Minerals (Evidence of mineral contents) Rules.
	Whether the work will be carried out by the proposed agency or throughout sourcing and details thereof. Components to be out sourced and name of the outsource agency	Work will be carried out by the proposed agency i.e. Gemcokati Exploration Pvt. Ltd Not applicable
	Name/Number of Geoscientists	Two Geologist (2 G)

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	Expected Field days (Geology, Geophysics, Surveyor)	Geologist-150 days + 45 days HQ

1.	**Location**	**Risewada-Lodhiwada block (G4)**						
		LONGITUDE				LATITUDE		
		(A)	80°	34'	18.67"	21°	22'	59.04"
		(B)	80°	41'	41.88"	21°	22'	57.88"
		(C)	80°	40'	48.88"	21°	22'	03.55"
		(D)	80°	39'	11.54"	21°	19'	45.62"
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		(F)	80°	35'	19.79"	21°	20'	55.73"
		(G)	80°	34'	19.87"	21°	20'	56.78"

	Villages	Risewara, Lodhiwada, Timkitola
	Tehsil/Taluk	Lanji
	District	Balaghat.
	State	Madhya Pradesh.
2.	**Area (hectares / square kilo meters)**	
	Block Area	**60 Sq. Km.**
	Forest Area	More than 90% of the block area is falling within Forest area.
	Government Land Area	----------
	Private Land Area	----------
3.	**Accessibility**	
	Nearest Rail Head	Amgaon & Dongargarh railway station is situated at about 30 Km from center of the block. The railway line is connected with Mumbai-Howrah rail zone in South East Central Railway zone.
	Road	The block is easily accessed from Lanji via Lanji-Khairagarh road.
	Airport	Amgaon which is located in the east of the block is about 30km from Gondiya Airport; Swami Vivekananda Airport, Raipur is about 150 km and Dr. Babasaheb Ambedkar International Airport, Nagpur is about 260 km.
4.	**Hydrography**	
	Local Surface Drainage Pattern (Channels)	The block shows radial drainage pattern due to highlands in the central region of the block.
	Rivers/Streams	The first/second/third order streams flowing from hill ranges in north of the block and similar streams in the south and east of the block drain to bagh river.
5.	**Climate**	
	Mean Annual Rainfall	1300 to 1500mm - Balaghat district, ~ 1456.70 Lanji Taluk
	Temperatures (December)(Minimum) Temperatures (May)(Maximum)	12^0C 45^0C
6.	**Topography**	Eastern part of the block is represented by vast undulating topography with small, isolated mounds, western part of the block is agricultural plainland.
	Toposheet Number	**64C/11**

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	Morphology of the Area	The area exhibits mountainous topography sandstone ridges and the area between the ridges have attained limited peneplanation.
7	**Availability of base line geosciences data**	
	Geological Map (1:50 K/25 K)	1:50,000 Scale Geological Map is available in public domain and was downloaded from GSI Portal (Bhukosh).
	Geochemical Map	Not Available.
	Geophysical Map (Aerogeophysical, Ground geophysical, Regional as well as local scale GP maps)	Ground geophysical Gravity & Magnetic map isn't available. Aerogeophysical map is available.
8.	Justification for taking up G4 stage mineral exploration	(A) In the proposed area the chemical analysis value shows range for Al2O3 22 – 51%, Fe2O3 12 – 60%, TiO2 3 - 6%, V2O5 0.06 – 0.12%, Sc 13-30% & Ga 47-51%. (B) Chemical analysis report of Aluminous Laterite (BRSs), collected during Reconnaissance survey shows in both adjacent NMET funded blocks (Maneri – Sitapala & Bhursadongri- Murum); V_2O_5 ranges from 0.11 to 0.36 % for MS Block and 0.11 -0.24 % for BM Block, additionally TiO_2 ranges 0.82 – 5.40 % for MS Block and 3.35 - 6.63% for BM Block. (C) This area falls under Gold OGP Area.

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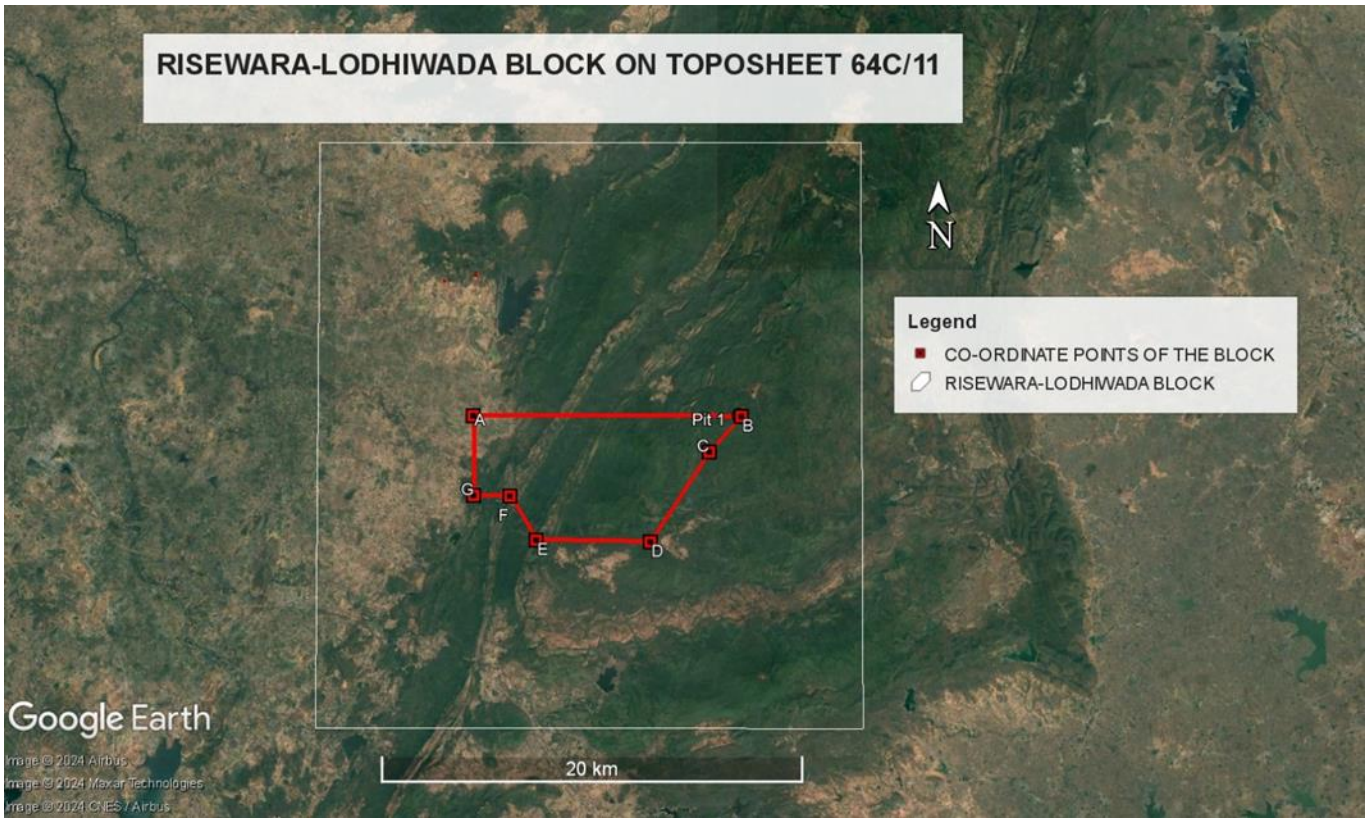
1. Block area on google map



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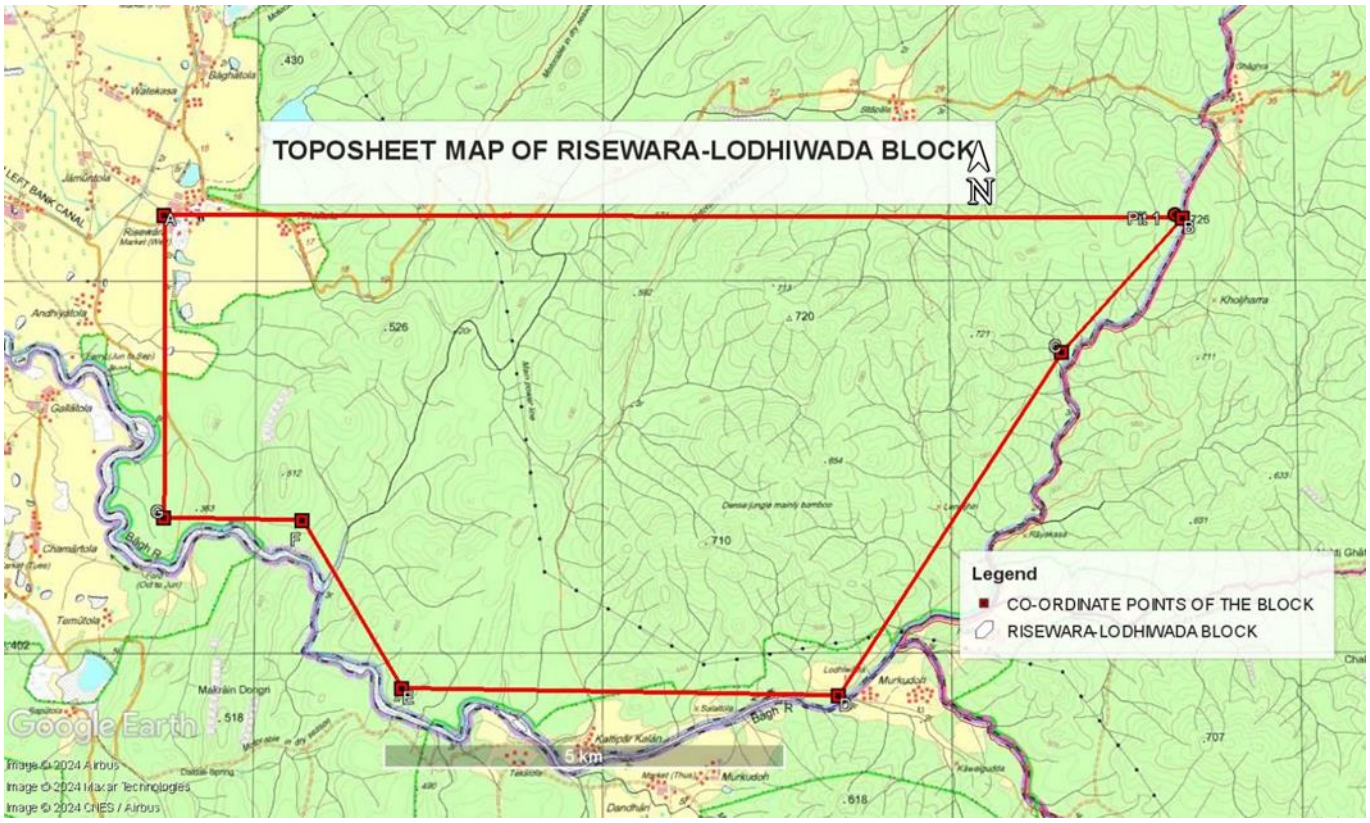
2. Location of the proposed Risewara-Lodhiwada block demarcated on Survey of India (SOI) Toposheet 64C/11



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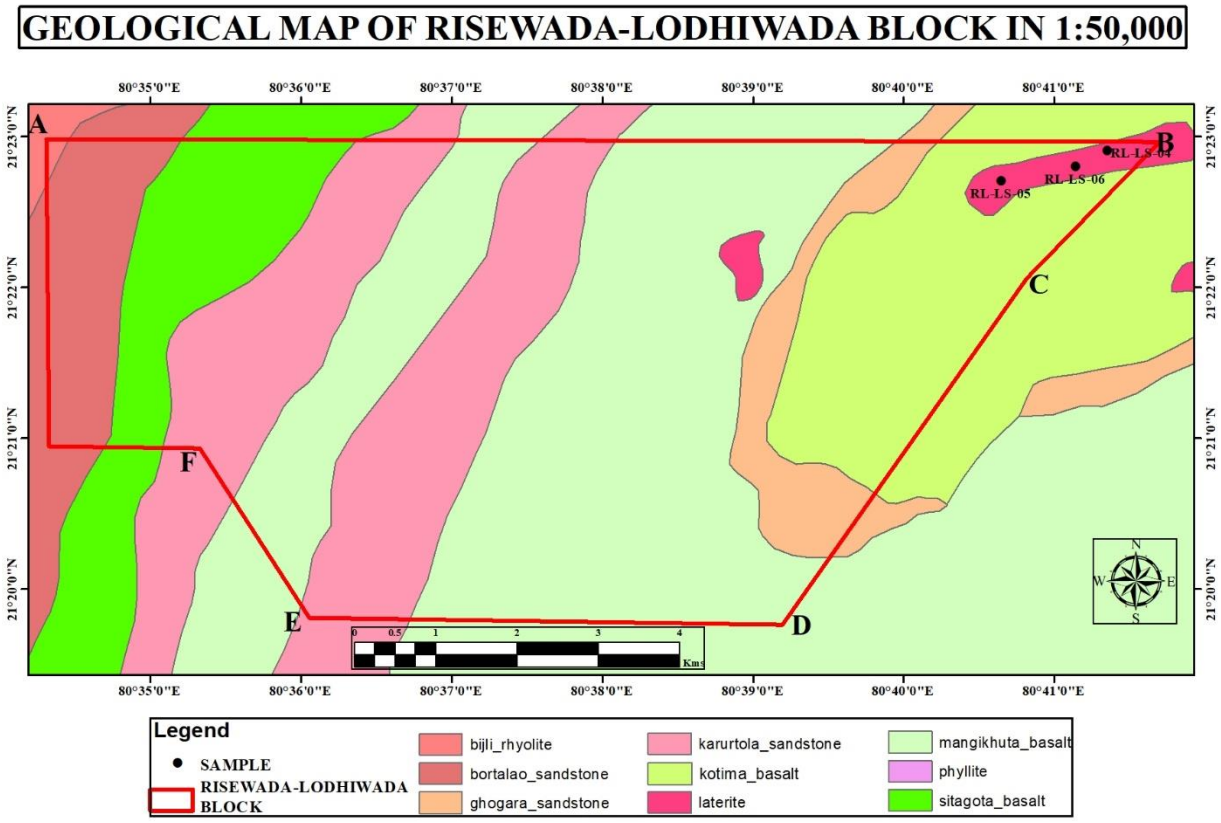
3. Block area on Geological Map.



Sl.No	Sample ID	Al2O3	Fe2O3	TiO2	V2O5	Sc	Ga
1	RL-LS-04	33.93	38.92	5.59	0.12	30.15	46.78
2	RL-LS-05	21.92	59.76	3.77	0.09	12.50	48.74
3	RL-LS-06	51.06	12.17	5.38	0.06	16.07	50.96

(BRS analysis results of Risewara-Lodhiwada block.)

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Detailed Project Report [DPR]

1. BLOCK SUMMARY:

A. Introduction:

The entire study area comes under Lanji tehsil, Balaghat district, Madhya Pradesh. The Risewara-Lodhiwada block falls under the Survey of India Toposheet No. 64C/11. This Block covers an area of 60 Sq km.

Risewada-Lodhiwada block (G4)						
LONGITUDE				LATITUDE		
(A)	80˚	34'	18.67"	21˚	22'	59.04"
(B)	80˚	41'	41.88"	21˚	22'	57.88"
(C)	80˚	40'	48.88"	21˚	22'	03.55"
(D)	80˚	39'	11.54"	21˚	19'	45.62"
(E)	80˚	36'	03.27"	21˚	19'	48.45"
(F)	80˚	35'	19.79"	21˚	20'	55.73"
(G)	80˚	34'	19.87"	21˚	20'	56.78"

B. Accessibility:

Amgaon & Dongargarh railway station is situated at about 30 Km from center of the block. The railway line is connected with Mumbai-Howrah rail zone in South East Central Railway zone. The block is easily accessed from Lanji via Lanji-Khairagarh road. Amgaon which is located in the east of the block is about 30km from Gondiya Airport; Swami Vivekananda Airport, Raipur is about 150 km and Dr. Babasaheb Ambedkar International Airport, Nagpur is about 260 km.

C. Topography:

Eastern part of the block is represented by vast undulating topography with small, isolated mounds, western part of the block is agricultural plainland.

D. Physiography:

The area proposed for prospecting is mountainous terrain with sandstone ridges & in between valleys are occupied by basalts.

E. Climate:

The study area experiences tropical climate. The rainy season usually sets in by mid-June and is active till end of October. The average rainfall in the area is about 1456.70 mm. From November to February the climate is pleasant. and from February onwards until the monsoon comes, it becomes very hot. The minimum temperature during the winter is 12°C and during the summer, temperature may reach up to 45°C.

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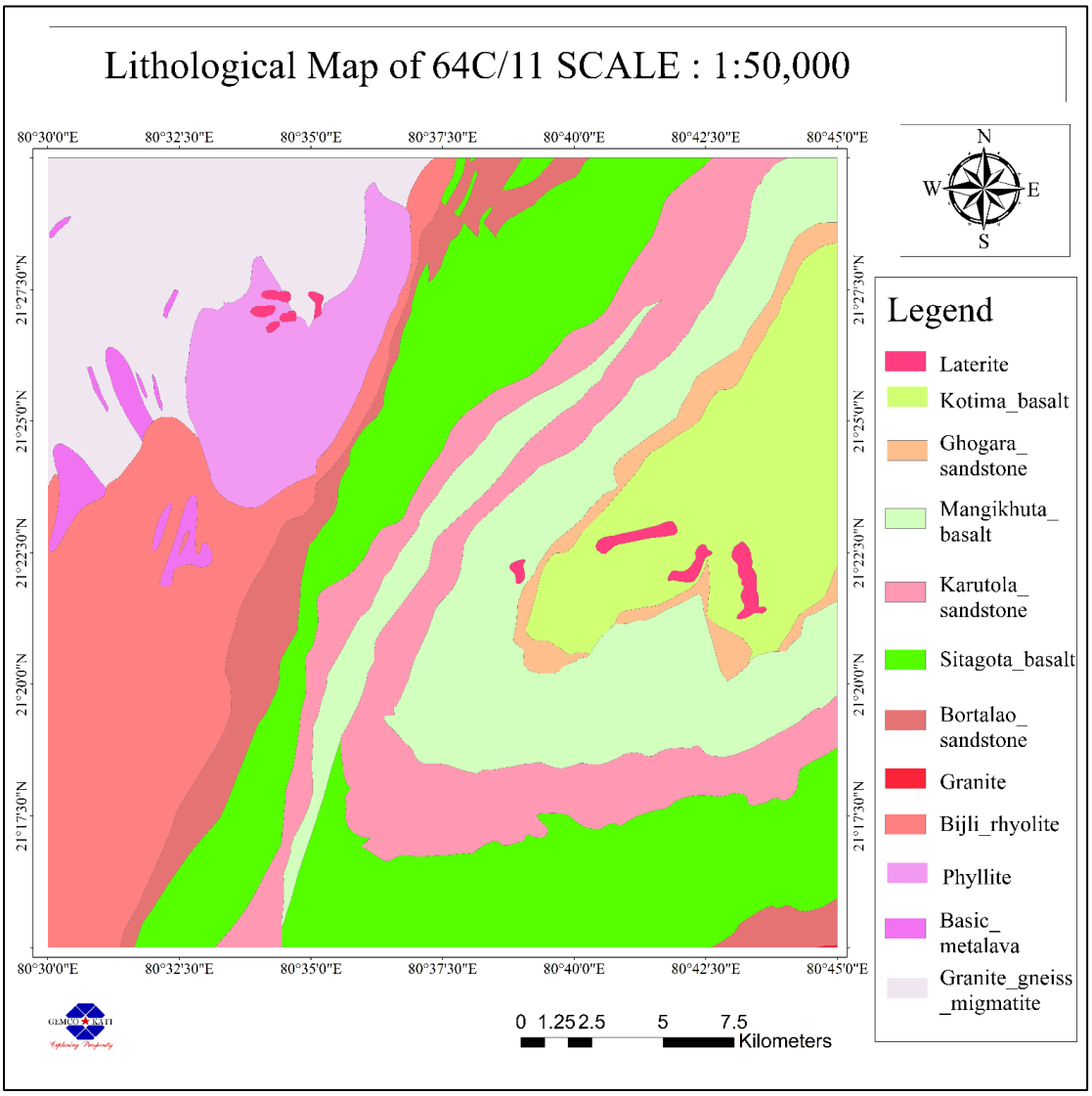
2. REGIONAL GEOLOGY:

The project area is located in the north central part of Survey of India Toposheet F44O/11 or 64C/11.Precambrian Amgaon Gneiss, Phyllite and meta-sediments and basic meta-lava enclaves, Palaeo-Proterozoic Nandgaon Volcanic Group of rocks and Meso-Proterozoic Khairagarh Volcanic Group of rocks are exposed in the toposheet. Younger lateritic capping has developed at several places over all the above rocks. The figure below is the available geological map of 1:50,000 scale, downloaded from Bhukosh Portal of Geological Survey of India. As stated earlier in 1.6.1, this toposheet was covered only in parts with some field traverses and the available 50,000 scale map is mainly based on the interpretation of aerial photographs and remote sensing imagery of the region.



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DESCRIPTION OF STRATIGRAPHIC UNITS:

The Amgaon Gneissic Complex consisting of Basement gneisses and supracrustals - phyllites and enclaves of meta-lava, Nandgaon Group represented by Bijli Rhyolites and Khairagarh Group represented by alternating sequence of Sandstones and basalts make up the lithopackage present in the block area. The Stratigraphic Sequence of the lithological formations exposed in the region is presented in the table below:

Table 1: Regional Stratigraphy of Toposheet 64C/11

Age	Supergroup	Group	Formation
Palaeo-Proterozoic – Meso-Proterozoic	**Dongargarh Supergroup**	Khairagarh Group	Kotima Basalt
			Ghogra Sandstone
			Mangikhuta Basalt
			Karutola Sandstone
			Sitagota Basalt
			Bortalao Sandstone
Palaeo-Proterozoic		Nandgaon Group	Bijli Rhyolites
Archaean	**Amgaon Gneissic Complex**	Amgaon Group	Amgaon Gneiss
			Phyllites
			Meta-lava enclaves

3. LOCAL GEOLOGY:

Amgaon Gneissic Complex

Amgaon granitic gneiss / migmatite:

Amgaon granitic gneiss is usually medium to coarse-grained rock with well-developed foliation. The granitic rock after a prolonged compressive stress has converted to gneiss. The texture is granoblastic, equigranular to inequigranular; gneissic foliation is defined by sub-parallel alignment of biotite flakes, elongated quartz and feldspar crystals; colour varies from light grey to pinkish grey (Pradeep Mawar, 2012 – STM in contiguous toposheets).

Meta-lava / metabasalt / amphibolite enclaves:

In the western parts of the block where-in rocks of Amgaon gneissic complex are present, occur a few enclaves of fine-grained massive metabasalt and medium to fine-grained amphibolite. However, extensive cultivation activities overall several decades in this part of the block, have obliterated many such enclaves shown on the Bhukosh geological map.

Dongargarh Super Group

Nandgaon Volcanic Group

Only Bijli Rhyolite is exposed in the project area.

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Bijli Rhyolite:
The rhyolites are hard, generally pink- and grey-coloured rocks. In the block area where outcrops were encountered, they are porphyritic texture with phenocrysts of quartz and elongated feldspar set in medium to fine grained matrix.

Khairagarh Volcanic Group
As per the reported stratigraphy, there are 3 episodes of Khairagarh Basalts, alternating with clastic sediments, represented by Sandstone.

Basalt:
The three episodes of basalts are represented by Lower Sitagota Basalt, Middle Mangikhuta Basalt and Upper Kotima Basalt.
Basalts occupy the valley portions in the eastern part of the block. They are greenish grey in general and show a wide variety of textures – from hard compact fine-grained rocks to amygdular basaltic (and pitted texture where amygdales are dislodged) to porphyritic textures with phenocrysts of glassy material set in fine matrix.

Sandstone:
The three episodes of clastic sediment deposition is represented by Lower Bortalao Sandstone, Middle Karutola Sandstone and Upper Ghogra Sandstone. The clastic sedimentation of Khairagarh Volcanics start with a matured ortho-conglomerate which has well developed in one location within the present block. The sandstones form the high ridges in the eastern part of the block area. They are grey to off-white to pale pink coloured hard, compact rocks. They show primary bedding and cross lamination features at places.

Laterite:
Several laterite occurrences have been mapped during the present fieldwork. These laterites have developed over the Archean supracrustals as well as Paleo- and Mesoproterozoic volcanic rocks.

Clay:
Several clay pockets have developed along with laterites capping supracrustals.

Geology of the block:

In the of the block area, the hills and valleys of Khairagarh group of rocks are represented by sandstones and basalts respectively.

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4. MINERAL POTENTIALITY BASED ON GEOLOGY, GEOPHYSICS, GEOCHEMISTRY:

The search for available previous work carried out in the area revealed that due to inhospitable terrain and Naxalite issues, the entire area of Toposheet 64C/11 was least studied in the region. Presence of Laterite capping was reported in Mapping by Dr. S.N. Sarkar (1949-50). Block area also falls within the OGP areas for Gold. The Geologists of the Exploration Wing of Gemcokati Exploration Pvt Ltd. have visited the area on 17th & 18th March 2025. During their visit few grab samples were drawn from the block areas for chemical analysis. The chemical analysis results are mentioned in the table below.

Table – 2

Sl. No	Sample ID	Al2O3	Fe2O3	TiO2	V2O5	Sc	Ga
1	RL-LS-04	33.93	38.92	5.59	0.12	30.15	46.78
2	RL-LS-05	21.92	59.76	3.77	0.09	12.50	48.74
3	RL-LS-06	51.06	12.17	5.38	0.06	16.07	50.96

(Above results confirmed Titaniferous Bauxite)

5. SCOPE FOR PROPOSED EXPLORATION:

Sl. No	Nature of Work	Proposed Work
1	Large Scale Mapping (1:12,500)	60 Sq. Km
2	Pitting	20 No. [2 m (L) x 1.5 m (W) x 1 m (D)] = 60 Cu m Total (60 Primary + 6 Check) Samples = 66 No.
3	Bed Rock Samples	22 No. [20 Primary Samples + 2 Check Samples]
4	Channel Samples	22 No. [20 Primary Samples + 2 Check Samples] (1-2 m in Length x 6 cm Width)
5	SSS	5 No.
6	Major Oxides by XRF	116 (20 BRS + 20 Channel Samples + 60 Pit Samples + 5 SSS) (105 Primary + 11 Check samples)
7	Gold by Fire Assay	5No. (As the area falls under gold OGP area)
8	PGE Analysis	5 No. (Spin off item from adjacent PGE Block)
9	REE Analysis	5 No.

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10	ICPMS for 34 Elements	105 (5 Stream Sediments + 10 BRS + 20 Channel + 60 Pit + 5 PGE + 5 REE)
11	Petrographic Studies	5 No.
12	Ore Microscopic studies	5 No.
13	XRD	5 No.
14	Period of Scheme	8 Months

6. TIME SCHEDULE

Item of Work	1	2	3	4	5	6	7	8
1. Large scale mapping (1:12,500) Surface Sampling and Chemical analysis								
2. Pitting & Chem analysis								
3. Review								
4. Interpretation of analytical data, finalization of lithology, plates								
5. Review & report preparation / Peer review								
6. Final submission								

7. RECOMMENDATIONS:

- On the basis of positive chemical analysis of grab samples of Laterite in the Risewara-Lodhiwada Block collected during Recconaitory traverses taken by the Geologists of M/s Gemcokati Exploration Pvt. Ltd, Chandrapur, are of opinion that the area can be taken for G4 stage of exploration.

8. Objectives

- To map the block area of 60 sq.km in 1:12,500 scale.
- To carry out systematic grab /channel/grove sampling of bed rocks from the potential mineralized zones.
- To asses G4 category (334) Va, Ti prospect in the Block, as per UNFC norms and Minerals (Evidence of mineral contents) Rules.
- Carry out mineral exploration as per Minerals (Evidence of Mineral Contents) Rule-2015, Mineral (Auction) Rules-2015 and MMDR Amendment act- 2015, which in turn to facilitate the Government of Madhya Pradesh for auctioning of the block.

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9. PREVIOUS WORK:

- The search for available previous work carried out in the area revealed that due to inhospitable terrain and Naxalite issues, the entire area of Toposheet 64C/11 was least studied in the region.
- A perusal of GSI portal for relevant reports for the toposheet 64C/11 yielded only 5 reports including one report on investigation for dimension stone. The area in the toposheet has been part of the studies:
    1. Mapping by Dr. S.N. Sarkar (1949-50);
    2. Search for chromite by R.K. Sharma & Harbans Kumar (1968);
    3. Regional Integrated Surveys by V.D. Mahajan (1977) and
    4. Search for Dimension Stones by A.K Dawande, S.D. Pimprikar, J.K. Srivastava. A.A. Dharwadkar and D.V. Ganvir (1997).
    5. STM by Pradeep Mawar (2012) in adjacent toposheets

10. PLANNED METHODOLOGY

- **Detailed Geological Mapping:** The geological mapping on a 1:12,500 scale is to be carried out in and around 56.70 sq km area by taking traverses. The geological map would be prepared by adding geological features, attitudes of beds, structural features etc. to be picked up and plotted during mapping.
- **Geochemical sampling:** BRSs, Stream sediments, Channel samples etc. will be collected for analysis.
- **Chemical Analysis:** XRF Gold by Fire assay and ICP analysis of major and trace element of selected samples.
- **Petrographic and mineragraphic studies:** Petrographic & minerographic studies of possible host rock.
- **Exploration Report:** Generate a detailed report (Final G3 stage Report), identifying and establishing area worthy of being raised to a G-2 scheme as per MEMC-2015.Data generated from G-3 level works, shall be presented in the Report as per the laid guidelines.

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11. NATURE, QUANTUM AND TARGET:

Estimated cost for Reconnaissance Survey (G-4) for Gallium bearing Titaniferous bauxite in Risewara-Lodhiwada Block, Balaghat District, MP.							
Total block area- 60 sq km; Completion Time- 8 Months							
Sl no.	**Item of Work**	**Unit**	**Rates as per NMET SoC 2020-21**		**Estimated Cost of the Proposal**	**Total Amount (Rs)**	**Remarks**
			SoC-Item Sl. No.	**Rates as per SoC**	**Qty.**		
1	**Large scale (LSM) Geological mapping/Trenching.**	Sq. Km			60		
1.1	Geologist man days (1 No) for Large Scale (LSM) Geological mapping / Pitting/Sampling	days	1.2b	11,000	150	16,50,000	
1.2	Labour (field) for (Total 4 Nos i.e. 2 workers per one geologist)	per worker	5.7	541	300	1,62,300	
1.3	Pitting	cum	2.1.2	3800	60	2,28,000	20 x 3 Cum each
	Subtotal (1.1 to 1.3)					20,40,300	
	As the the block is in LWE affected area					25,50,375	
1.4	Geologist man days (1 No) for Geological mapping & Report (HQ)	days	1.2a	9,000	45	4,05,000	
	Total (1)					**70,35,975**	
2	**Laboratory Studies**						
2.1	Major Oxides by XRF	per sample	4.1.15a	4200	116	4,87,200	(20 BRS + 20 Channel Samples + 60 Pit Samples + 5 SSS) (105 Primary + 11 Check samples)
2.2	Gold by Fire Assay	per sample	4.1.5a	2,380	5	11,900	

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2.3	Minor & trace elements by ICP	per sample	4.1.14	7731	115	8,89,065	(5 Stream Sediments + 10 BRS + 20 Channel + 60 Pit + 5 PGE + 5 REE + 11 Check samples)
2.4	PGE Analysis (Ni-S fire assay)	per sample	4.1.5d	11800	5	59,000	
	Total (2)					**14,47,165**	
3	**XRD Studies for identification of minerals**	per sample	4.5.1	4,000	5	**20,000**	
4	**Petrological / Mineragraphic studies**						
4.1	Preparation of thin section	per sample	4.3.1	2353	5	11,765	
4.2	b)Study of thin sections for petrography	per sample	4.3.4	4232	5	21,160	
4.3	c)Preparation of polished section	per sample	4.3.0	1549	5	7,745	
4.4	d)Study of thin polished section for mineragraphy	per sample	4.3.4	4232	5	21,160	
4.5	Digital photomicrograph of thin polished section	per photo	4.3.7	280	5	1,400	
	Total (4)					**63,230**	
5	**Geological Report Preparation**	Nos	5.2		1	**2,13,258**	
6	**Preparation of Exploration Proposal**	Nos	5.1		1	**89,568**	
7	**Report Peer Review Charges**	lumpsum	As per EC decision	30000	1	**30,000**	
8	**Total Estimated Cost without GST**					**88,99,197**	
9	**Provision for GST (18%)**					**16,01,855**	
10	**Total Estimated Cost with GST**					**1,05,01,052**	
					Say, in Lakhs	**105.01**	
Note:							

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1	**Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.**
2	**In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.**
3	**If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.**
4	**Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.**
5	**Any item of work not mentioned above shall be added as per SoC.**
*	**SoC Item No, Unit and Rate for each item of work must be as mentioned in the SoC.**

7.0 References:

1) Mapping by Dr. S.N. Sarkar (1949-50);
2) Search for chromite by R.K. Sharma & Harbans Kumar (1968);
3) Regional Integrated Surveys by V.D. Mahajan (1977) and
4) Search for Dimension Stones by A.K Dawande, S.D. Pimprikar, J.K. Srivastava. A.A. Dharwadkar and D.V. Ganvir (1997).
5) STM by Pradeep Mawar (2012) in adjacent toposheets

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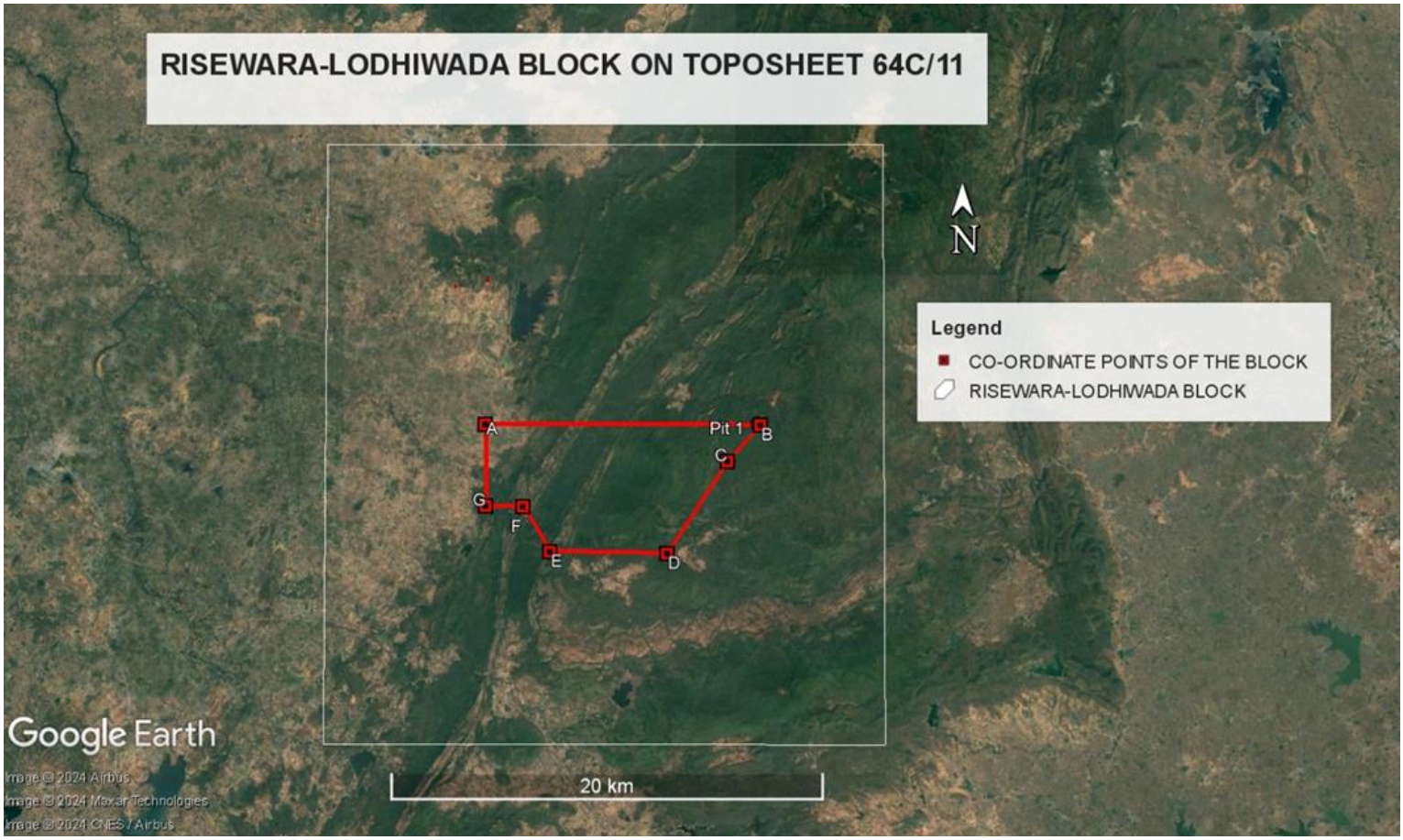
1. Proposed Block area on Google map.



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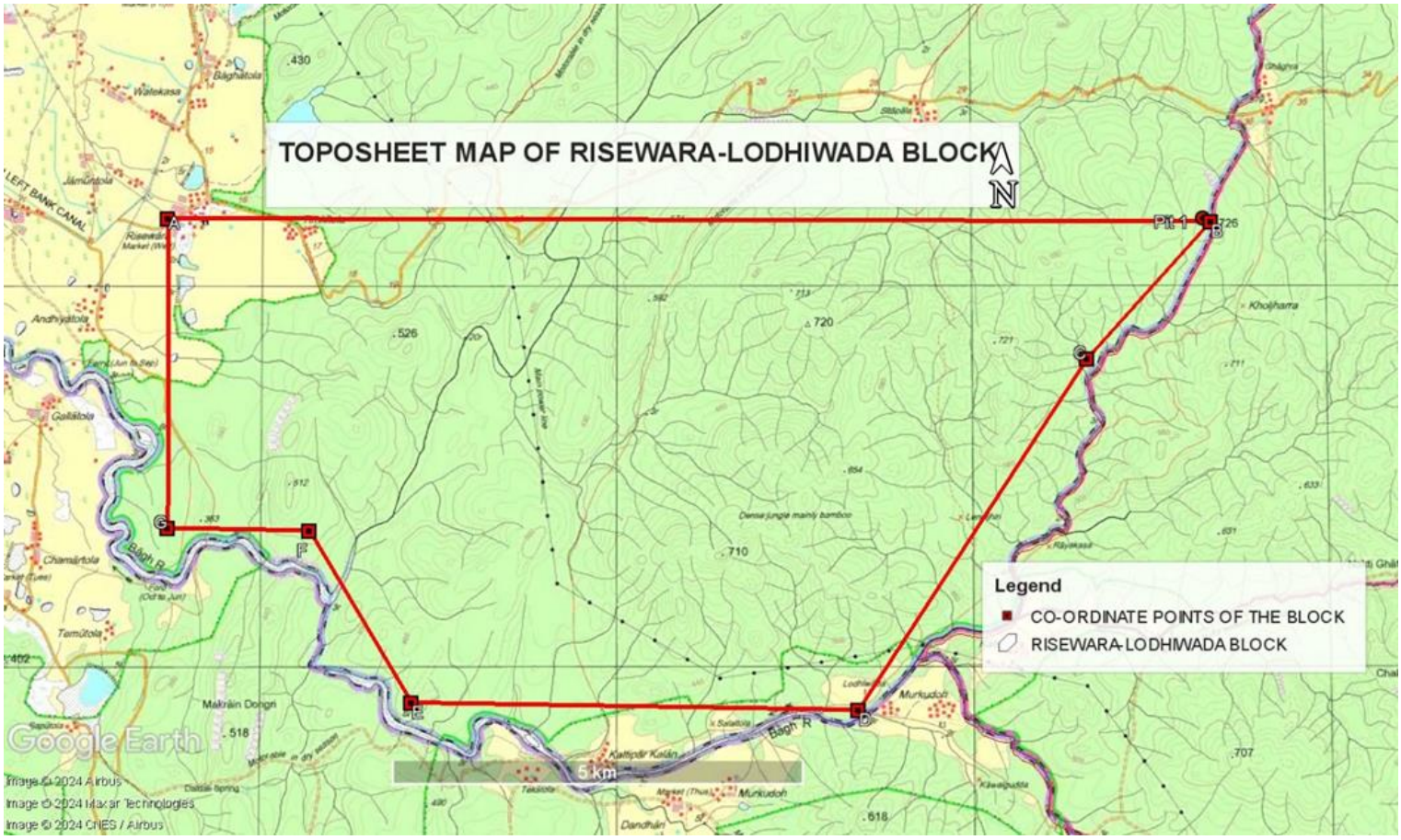
2. Location of the proposed lock demarcated on Survey of India (SOI) Toposheet(s) 56I/13&14&14.



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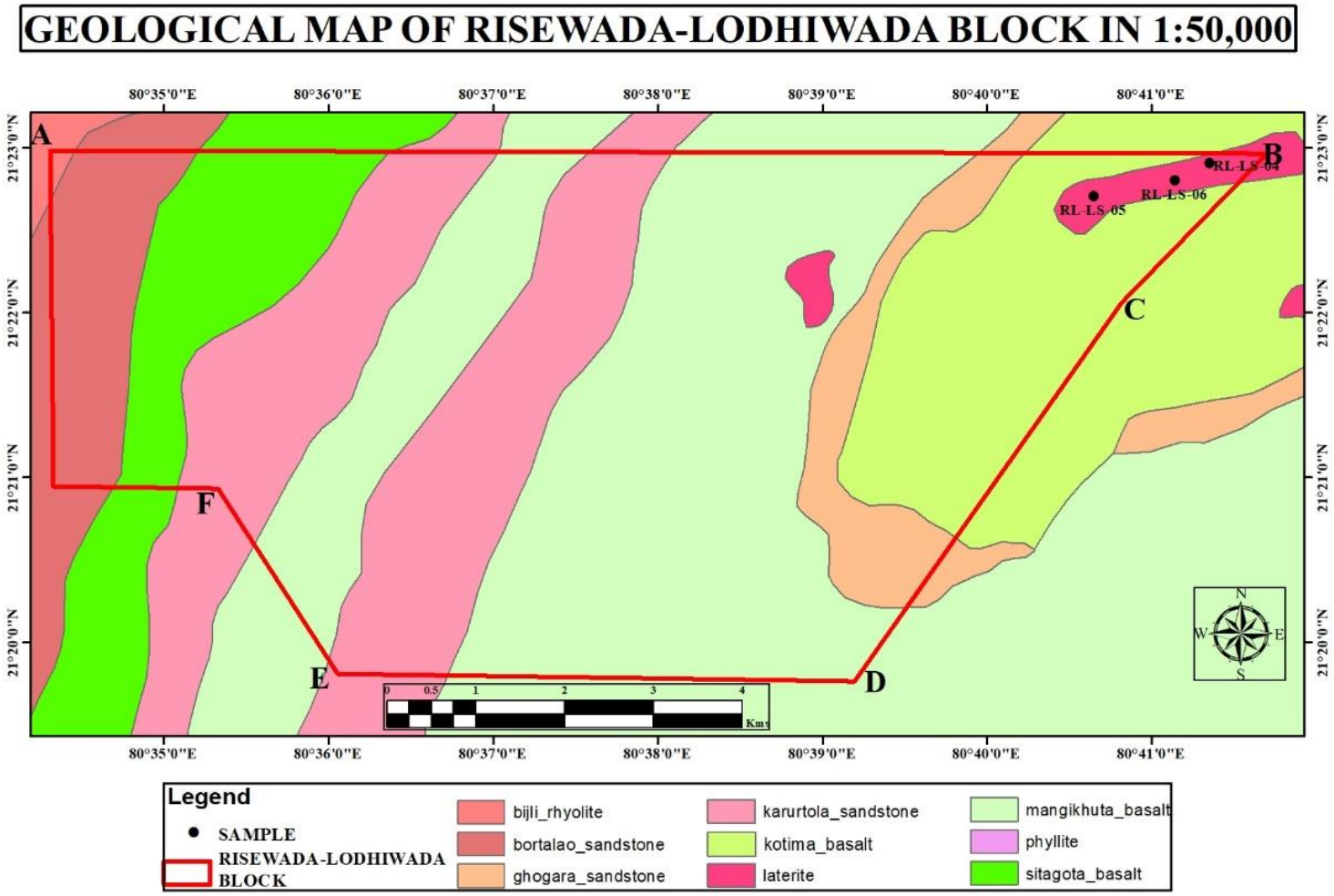
3. Block area on Geological Map.



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