

DETAILED PROPOSAL REPORT (DPR)

**PRELIMINARY EXPLORATION (G-3 STAGE) FOR
LIMESTONE IN ADIVIDEVULAPALLI BLOCK (AREA 5 SQ.
KM), NALGONDA DISTRICT, TELANGANA.**

COMMODITY: LIMESTONE

By

**M/S GMMCO Technology Services Ltd (GTS)
Hyderabad, Telangana**



FOR SUBMITTING PROPOSAL FOR UNDERTAKING PRELIMINARY EXPLORATION

From:	To:
Dr. Akkala Surendra Babu	The Director & HoD
Chief of Technical Services	National Mineral Exploration Trust, Secretariat, Ministry of Mines,
GMMCO Technology Services Ltd ("GTS")	Room No-325 & 326, Wing-F, Udyog Bhawan,
9th Floor (9A/2), Vaishnavi Cymbol, Puppalaguda, Gandipet Mandal,	Rajpath Area, Central secretariat
Rangareddy District, Hyderabad – 500089	New Delhi – 110011.

1) Name and address of the Applicant		
(a)	Name	GMMCO Technology Services Ltd ("GTS")
(b)	Postal address	GTS Ltd, 9th Floor (9A/2), Vaishnavi Cymbol, Puppalaguda, Gandipet Mandal, Rangareddy District, Hyderabad, Telangana, India – 500089
(c)	Telephone No(Office)	+91-7032711678
(d)	Fax No(Office)	
(e)	Mobile No	+91-7032711678
(f)	Telephone No(Residence)	
(g)	E-mail address	pundarikarao.d@gts-india.com

2) Detail of Accreditation as Private Exploration Agencies and Notification under the Provision to Section 4(1) of the MMDR Act.		
(a)	Date of accreditation granted by QCI-NABET	20th May - 2024
(b)	Date of expiry of accreditation	15th May - 2027
(c)	Date of Notification under the provision to Section 4(1) of the MMDR Act.	13th September - 2024
(d)	Date of expiry of notification	12th September - 2027
(e)	Category of the Exploration agency (Category A or B) under Notification	Category – A
3) Location details of the area proposed		
(a)	State	Telangana
(b)	District(s)	Nalgonda
(c)	Nearby village(s)	Adividevulapalli, Raghunathapalem and Gundlapalle
(d)	Survey of India (SOI) Toposheet No (s)	56P/10
(e)	Area in Sq. Km	5 Sq. Km

(f)	Boundary co-ordinates of the Proposed Block (in Decimal Degree)	Corner points	Latitude	Longitude
		A	16°39'30.76"N	79°32'33.84"E
		B	16°40'10.89"N	79°32'0.22"E
		C	16°41'14.81"N	79°33'23.22"E
		D	16°40'34.71"N	79°33'57.16"E

4) Mineral Potential of the area		
(a)	Name of Mineral(s) identified/expected in the area/block	Limestone
(b)	Title of the Project	Preliminary Exploration (G-3 Stage) for Limestone in Adividevulapalli Block (Area 5 Sq. Km), Nalgonda District, Telangana
(c)	Stage of Exploration	G-3
(d)	Basis on which mineral potential of the area has been identified	Please refer enclosed "Summary proposal"
5) Documents enclosed with the application		
(i)	Location of the proposed block demarcated on Survey of India (SOI) Toposheet No. 56P/10	
(ii)	Documents mentioned in item 4(d) above.	

Signature of the applicant



Dr. Akkala Surendra Babu
Chief of Technical Services
GMMCO Technology Services Ltd
Mobile: 9630459992
Email: surendrababu.a@gts-india.com

Place: Hyderabad
Date: 07.07.2026

Summary of the Block

Proposal for Preliminary Exploration (G-3 Stage) for Limestone in Adividevulapalli Block (Area 5 Sq. Km), Nalgonda District, Telangana

S.N	Features	Details															
	Block ID	Adividevulapalli															
	Exploration Agency	M/s GMMCO Technology Services Limited Hyderabad, India.															
	Commodity	Limestone															
	Mineral Belt	Palnadu Sub-Basin, Cuddapah Supergroup															
	Completion Period with entire Time schedule to complete the project	Ten (10) months															
	Objectives	i. To carry out detailed topographical survey and geological mapping on 1:4,000 scale over an area of 5 sq. km to establish surface geological characteristics and disposition of limestone. ii. To delineate the lateral (strike) and vertical (depth) continuity of limestone bands through systematic vertical core drilling, supported by detailed lithological logging and analytical studies. iii. To undertake exploration in accordance with the provisions of the Minerals (Evidence of Mineral Contents) Rules, 2015 and Mineral (Auction) Rules, 2015 (as amended up to 2021), ensuring generation of statutory-compliant exploration data. iv. To demarcate grade-wise limestone zones within the block as per UNFC norms and to estimate limestone resources, thereby facilitating augmentation of the State mineral inventory and auction of the block.															
	Whether the work will be carried out by the proposed agency	M/s GMMCO Technology Services Limited Hyderabad, India															
	Name/Number of Geoscientists	Two Senior Geologists															
	Expected Field days (Geology) Geological Party Days	Two Senior Geologists-200 days (2x100 days)															
1.	Location																
	Latitude and Longitude	<table border="1"> <thead> <tr> <th>Corner points</th><th>Latitude</th><th>Longitude</th></tr> </thead> <tbody> <tr> <td>A</td><td>16°39'30.76"N</td><td>79°32'33.84"E</td></tr> <tr> <td>B</td><td>16°40'10.89"N</td><td>79°32'0.22"E</td></tr> <tr> <td>C</td><td>16°41'14.81"N</td><td>79°33'23.22"E</td></tr> <tr> <td>D</td><td>16°40'34.71"N</td><td>79°33'57.16"E</td></tr> </tbody> </table>	Corner points	Latitude	Longitude	A	16°39'30.76"N	79°32'33.84"E	B	16°40'10.89"N	79°32'0.22"E	C	16°41'14.81"N	79°33'23.22"E	D	16°40'34.71"N	79°33'57.16"E
Corner points	Latitude	Longitude															
A	16°39'30.76"N	79°32'33.84"E															
B	16°40'10.89"N	79°32'0.22"E															
C	16°41'14.81"N	79°33'23.22"E															
D	16°40'34.71"N	79°33'57.16"E															
	Villages	Adividevulapalli, Raghunathapalem and Gundla palle															
	Tehsil /Taluk	Adavidevulapalli Mandal															

	District	Nalgonda
	State	Telangana
2.	Area (hectares/square kilometers)	
	Block Area	5 sq. km
	Forest Area	Nil
	Government Land Area	Nil
	Private Land Area	Data not available
3.	Accessibility	
	Nearest Rail Head	Miryalaguda Railway station
	Road	The village Adividevulapalli is located in Adividevulapalli Mandal of Nalgonda District in the State of Telangana. The nearest town is Miryalaguda, which is about 30 kilometers away from Adividevulapalli.
	Airport	The nearest airport is Rajiv Gandhi International Airport (RGIA), Hyderabad
4.	Hydrography	
	Local Surface Drainage Pattern (Channels)	The area falls in Survey of India Toposheet No. 56P/10 and is drained by the easterly flowing Krishna River and its tributaries, including Tungapahad Vagu, along with several minor tributaries and distributaries. The Krishna River, a major and mature river system, flows to the south of the proposed block and effectively divides the region into northern and southern parts.
	Rivers/Streams	South of proposed block Krishna is a major, matured river which divides the area into two parts, north and south.
5.	Climate	
	Mean Annual Rainfall	Mean annual rainfall ranging from 700 to 900 mm
	Temperatures (December)Minimum Temperatures(June) (Maximum)	Tropical climate with hot summers, mild winters, and southwest monsoon rainfall.
6.	Topography	
	Toposheet Number	56P/10
	Morphology of the Area	The proposed area is gentle undulations and low lying areas
7.	Availability of baseline geosciences data	
	Geological Map (1:50K/25K)	Regional Geological Map - GSI (1:50000 scale)
	Geochemical Map	NGCM data available
	Geophysical Map (Aeromagnetic, ground geophysical, Regional as well also Local scale GP maps)	NGDR

8.	Justification for taking up Reconnaissance Survey / Regional Exploration	The proposed block is underlain by massive limestone of the Narji Formation, Palnad Basin, known for its suitability for cement manufacturing. Earlier G-4 stage (UNFC) exploration by GSI, involving 1:25,000 scale geological mapping over ~100 sq. km, identified extensive development of cement-grade massive limestone, particularly around Adividevulapalli. Chemical analysis indicates favourable quality with average CaO of 46.43%, SiO₂ of 12.83%, and MgO ranging from 0.28% to 0.89%. Based on these results, an area of about 10 sq. km was recommended for detailed exploration through drilling. The limestone occurrences along the northern bank of the Krishna River and towards Virappagudem suggest good lateral continuity. However, subsurface continuity, thickness and grade variation remain in the proposed area. Therefore, G-3 stage investigation involving systematic core drilling is essential to delineate limestone geometry, demarcate grade-wise zones and generate UNFC-compliant resource estimates, facilitating augmentation of the State mineral inventory and auction of the block.
----	---	--

Detailed Block Summary

Preliminary Exploration (G-3 Stage) for Limestone in Adividevulapalli Block (Area 5 Sq. Km), Nalgonda District, Telangana

1. Block Summary

Introduction

The proposed limestone block forms part of the Palnad Basin and is underlain predominantly by massive limestone of the Narji Formation, which is well known for its suitability for cement manufacturing. The area falls in Survey of India Toposheet No. 56P/10 (Plat-2) and lies along the northern bank of the Krishna River, with good accessibility through existing roads and nearby habitations.

Regionally, the Narji Limestone represents an important carbonate sequence of the Palnad Basin and exhibits considerable lateral persistence and thickness variation. Previous G-4 stage (UNFC) exploration carried out by the Geological Survey of India (GSI) involved large-scale geological mapping on 1:12,500 scale over an area of about 100 sq. km (Plat-4). These studies identified extensive development of massive limestone, particularly in and around the Adividevulapalli area, and established its cement-grade chemical characteristics.

Based on favourable lithological disposition and chemical analysis results, a restricted area was recommended for detailed G-3 stage investigation through drilling to assess subsurface continuity, grade variation and resource potential. Accordingly, the present investigation has been proposed to generate UNFC-compliant geological and analytical data, which will augment the State mineral inventory and facilitate scientific evaluation and auction of the limestone block.

Location and details of the area

The proposed block falls in the survey of India toposheet No. 56 P/10 in the administrative jurisdiction of Nalgonda District, Telangana (Plate-1). The area forms part of Adavidevulapalli Mandal, Nalgonda District, Telangana, where Narji Limestone of Palnadu sub basin are exposed. Miryalaguda is the nearest town in the vicinity at a distance of 22 km towards NNE of the area. The area can be reached by road through the NH-9 and State Highway-2 via Nalgonda and Miryalaguda.

Physiography

The proposed area is more or less plain with gentle undulations, mostly under cultivation. Easterly flowing Krishna River and its tributary Tungapahad vagu, with other small tributaries and distributaries drain the study area.

Regional Geological setup

The proposed block forms part of the Palnad Sub-Basin, located in the northeastern part of the Cuddapah Basin, and is largely occupied by Neoproterozoic Kurnool Group of rocks. The earliest geological account of the Palnad Basin was provided by

William King (1872), followed by systematic geological mapping in parts of Toposheet No. 56P/10 by Ramalingaswamy (1976-77). Subsequent limestone-focused investigations in different parts of the Palnad Sub-Basin were carried out by Krupanidhi (1966-67), Nageswara Rao & Varaprasada Rao (1967-68), Chakradhar et al. (1980-83), Ravindra Babu et al. (1989), Ramakrishnaiah et al. (2012-13), Jagadishwar Babu & Tirumurugan (2013) and Sugathan & Rimpal Kar (2013).

The Cuddapah Basin is a crescent-shaped intracratonic basin comprising several sub-basins, namely Papaghni, Chitravati, Nallamalai, Srisailam, Kurnool and Palnad, each reflecting a distinct evolutionary history. The sedimentary succession unconformably overlies the Peninsular Gneiss and greenstone belts along the western margin of the basin. The basin has an overall cumulative sedimentary thickness of about 12 km, ranging in age from late Paleoproterozoic to Neoproterozoic.

The lower Cuddapah Supergroup (Papaghni and Chitravati Groups) consists predominantly of siliciclastic-carbonate sequences with associated alkali to sub-alkali basaltic flows, mafic to ultramafic sills and dykes, and ash-fall tuffs. In contrast, the younger Kurnool Group is devoid of mafic igneous activity, indicating a significant change in tectonic regime. The lower Cuddapah groups are exposed mainly in the western and southwestern parts of the basin, while the Nallamalai Group occupies the eastern part, east of the Rudravaram line.

In the Palnad Sub-Basin, the Kurnool Group directly overlies the Peninsular Gneiss, unlike other sub-basins where it overlies lower Cuddapah rocks. The basin is structurally influenced by a major east-dipping thrust along the Rudravaram line (Maidukuru Thrust), which separates the Papaghni–Kurnool sub-basins from the Nallamalai Fold Belt.

Table.1 Regional stratigraphy of the proposed area

Group	Major Litho units	Lithology
Kurnool Group	Nandyal Shale	Calcareous shale
	Koilkuntala Limestone	Limestone
	Paniam Quartzite	Quartzite
	Owk Shale	Shale
	Narji Limestone	Massive limestone
	Banaganapalli Quartzite	Basal quartzite
Nallamalai Group	Srisailam & Bairenkonda Quartzites	Quartzites
	Cumbum Formation	Shale / phyllite
Chitravati Group	Pulivendla Quartzite	Quartzite
	Tadpatri Formation	Shale + limestone + volcanics
Papaghni Group	Gulcheru Quartzite	Quartzite
	Vempalle Formation	Limestone / dolomite
Basement	Peninsular Gneiss	Granite-Gneiss

Stratigraphically, the Kurnool Group, representing the youngest sedimentary succession of the Cuddapah Basin, begins with the Banaganapalli Quartzite, which

unconformably overlies the Srisailam Quartzite in parts of the Palnad Sub-Basin. This is followed by the Narji Limestone, a thick, laterally extensive carbonate platform representing a major limestone horizon, distinctly different from the stromatolitic dolomites of the lower Cuddapah succession. The Narji Limestone is overlain by the Owk Shale, followed by the Paniam Quartzite, which has a paraconformable relationship with the underlying shale. The succession is capped by the Koilkuntala Limestone and the Nandyal Shale, the latter being calcareous in nature and distinct from the Owk Shale. The regional geological setting thus provides a favourable stratigraphic and tectonic framework for the development of thick, laterally persistent, cement-grade limestone horizons within the Narji Formation of the Palnad Sub-Basin.

Geology of the Block

The massive limestone of Narji Limestone Formation is exposed in the proposed forms a part of Proterozoic Palnadu Basin equivalents to Narji Limestone formation of Kurnool Group. The Palnad sub-basin consists of the older Banganapalli and younger Narji Formation. The Banganapalli Formation is represented by thick quartzite and shale sequence, with basal conglomerate. This formation is gradationally overlain by bedded and massive limestone of Narji Formation (Plate-3). Both the limestone and quartzite are unconformably overlain by the Quaternary sediments along the bank of the Krishna River. The limestone can be divided into two varieties depending on the bed thickness (i) bedded limestone (bed thickness: 1 cm to <1m) and (ii) massive limestone (bed thickness exceeds 1m). The bedded and massive limestones also have gradational contact.

Table No.2 The local stratigraphy of the area

Group	Formation	Lithology
		Soil
Kurnool Group	Narji Limestone (45-60m)	Middle grey, pinkish massive limestone (>1.5m)
		Lower Purple bedded limestone
	Banganapalli	Shale and quartzite, pebble beds, Conglomerate

Scope for proposed exploration

The scope of the proposed G-3 stage exploration is to generate systematic surface and subsurface geological data for assessment of limestone resources in the block. The programme envisages detailed topographical survey and geological mapping on 1:4,000 scale over the entire block to delineate lithological contacts, structural features and surface disposition of limestone.

The exploration programme includes systematic vertical core drilling to establish the lateral and depth continuity, thickness and quality of limestone bands. Detailed lithological logging, core recovery studies and representative sampling will be carried out, followed by chemical analysis to assess grade variations and suitability for cement manufacture.

The data generated will be integrated to demarcate grade-wise limestone zones,

establish geological continuity and estimate UNFC-compliant limestone resources at G-3 level. The proposed exploration will be carried out in accordance with the Minerals (Evidence of Mineral Contents) Rules, 2015 and Mineral (Auction) Rules, 2015 (as amended up to 2021), with the objective of augmenting the State mineral inventory and facilitating auction of the limestone block

Mineral Potentiality based on Geology, Geophysics and Ground Geochemistry Geological Indicators.

The mineral potentiality of the proposed block is primarily supported by favourable geological attributes associated with the Narji Formation of the Kurnool Group in the Palnad Sub-Basin. The area is underlain by thick, laterally persistent massive limestone, representing a well-developed carbonate platform, which constitutes a major host for cement-grade limestone mineralisation.

Surface geological mapping indicates extensive development of massive, compact, fine- to medium-grained limestone with minimal intercalation of shale or siliceous bands in the core part of the block. The limestone exhibits uniform bedding attitude, gentle dips and continuity along strike, suggesting favourable conditions for subsurface persistence. Limited weathering, low argillaceous content and absence of significant dolomitisation further enhance its suitability for cement manufacture.

Stratigraphically, the limestone belongs to the Narji Limestone, which conformably overlies the Banaganapalli Quartzite and is overlain by the Owk Shale. This stratigraphic position favours development of thick limestone horizons with relatively consistent chemical composition. The proximity of the block to the Krishna River has resulted in good exposure along river sections, aiding surface delineation of limestone bands.

Regionally, earlier GSI investigations have established the Narji Limestone as a proven cement-grade horizon, with reported high CaO and low MgO contents, and similar lithological characteristics are observed within the proposed block. The absence of major post-depositional deformation and igneous intrusions within the Kurnool Group further supports preservation of primary limestone quality.

The above geological attributes collectively indicate high mineral potential for cement-grade limestone within the proposed block and justify systematic G-3 stage exploration to establish subsurface continuity, grade variation and resource potential.

2. Previous Work

Systematic geological investigations in the Palnad Sub-Basin of the Cuddapah Basin have been carried out by several workers from time to time. The earliest geological account of the basin was provided by King (1872), who outlined the broad stratigraphy and recognized the limestone-bearing horizons of the Kurnool Group.

Subsequent geological mapping in parts of Survey of India Toposheet No. 56P/10 was undertaken by Ramalingaswamy (1976-77), which helped in refining the lithostratigraphic framework of the area. Detailed investigations for limestone in different parts of the Palnad Sub-Basin were carried out by Krupanidhi (1966-67),

Nageswara Rao and Varaprasada Rao (1967-68) and Chakradhar et al. (1980–83), who reported extensive development of Narji Limestone and highlighted its cement-grade potential.

Further work by Ravindra Babu et al. (1989) contributed to better understanding of the stratigraphy and lateral continuity of limestone units. More recent investigations by Ramakrishnaiah et al. (2012–13), Jagadishwar Babu and Tirumurugan (2013), and Sugathan and Rimpal Kar (2013) involved systematic geological mapping, sampling and chemical analysis, and reaffirmed the suitability of Narji Limestone for cement manufacture.

Rimpal Kar (2013), GSI carried out G-4 stage (UNFC) exploration carried on 1:25,000 scale geological mapping over an area of about 100 sq. km. The study delineated extensive development of massive limestone and identified cement-grade limestone zones, particularly around the Adividevulapalli area, recommending selected sectors for detailed G-3 stage exploration through drilling.

3. Block description

Corner points	Latitude	Longitude
A	16°39'30.76"N	79°32'33.84"E
B	16°40'10.89"N	79°32'0.22"E
C	16°41'14.81"N	79°33'23.22"E
D	16°40'34.71"N	79°33'57.16"E

4. Planned Methodology

The proposed G-3 stage exploration will be carried out through an integrated programme of surface mapping and subsurface investigation, aimed at generating UNFC-compliant exploration data. The exploration shall be carried out in accordance with the provisions of the Minerals (Evidence of Mineral Contents) Amendment Rules, 2021.

(i) Topographical Survey and Geological Mapping

Detailed topographical survey using DGPS and geological mapping on 1:4,000 scale will be undertaken over an area of 5 sq. km in the block to delineate lithological contacts, stratigraphic boundaries, structural features and surface disposition of limestone. Representative surface samples will be collected to assess preliminary grade variations.

(ii) Drilling and Subsurface Exploration

Systematic vertical core drilling is proposed to establish the lateral and depth continuity, thickness and geometry of limestone bands. Boreholes will be spaced at an average interval of about 800 m or less, along strike and across the limestone horizon, subject to surface geological control (Plate-5). Each borehole is proposed to a depth of 50 m, or until basement / non-limestone horizon is intersected.

In accordance with the Minerals (Evidence of Mineral Contents) Amendment Rules, 2021, limestone shall be explored by drilling. Accordingly, six (08) vertical boreholes, each of 50 m depth, are proposed in the Adividevulapalli Block. Thus, a cumulative 400 m of core drilling will be carried out during the G-3 stage exploration.

Drill Core Logging and Sampling

The drill cores will be logged in detail for lithology, texture, structure and alteration, wherever present. Rock Quality Designation (RQD) will also be determined. During geological logging, different limestone zones will be identified and marked. Core samples will be collected at 1.0 m intervals. It is anticipated that about 40 samples per borehole will be generated. In total, approximately 275 primary samples along with 20 check samples (10% external check) will be generated from the exploration block.

(iii) Sampling and Chemical Analysis

Representative core samples will be subjected to chemical analysis for major oxides such as CaO, SiO₂, MgO, etc., to evaluate cement-grade suitability of the limestone.

(iv) Data Integration and Resource Estimation

All geological, drilling and analytical data will be integrated to demarcate grade-wise limestone zones and estimate UNFC-compliant limestone resources at G-3 level. The outputs will include geological maps, borehole sections and a comprehensive technical report, which will support State mineral inventory and auction of the block.

5. Nature Quantum and Target

The following work components are proposed for G3 stage exploration programme in the proposed block:

Table No. 3 Envisaged Quantum of proposed work in Adividevulapalli Block

S. No	Activities	Unit	Proposed Target
1	Geological Mapping (on 1:4000 Scale)	Sq. Km	5
2	Topographic Survey (on 1:4000 Scale)	Nos.	5
3	Drilling (8 bore holes, 50 m depth each)	m	400
4	Core logging & sampling	m	400
5	Laboratory studies		
	a) Core samples	Nos.	220
	b) Petrological Samples	Nos.	18
6	Report Preparation & Peer review (5 Hard copies with a soft copy)	Nos.	1

6. Manpower deployment

The following manpower is proposed for systematic execution of the G-3 stage exploration programme in the Adividevulapalli block:

Sl. No	Category	Number	Role / Responsibility
1	Senior Geologists	2	Overall supervision, planning and execution of geological mapping, structural studies, and data integration
2	Junior Geologist	1	Assist in geological mapping, field observations, measurements, and recording of structural data
3	Field Labour	4	Collection, labeling, preparation, and dispatch of bedrock, trench and pit
4	Sampler	1	Collection, labeling, preparation, and dispatch of bedrock, trench, pit, and core samples.
5	Supporting Labour for core Sampling	2	Assist sampler in sample collection, handling, and processing.
6	Surveyor	1	Conduct geophysical surveys, lineament identification, and integration with geological and geochemical data

7. Time Schedule for Preliminary Exploration (G-3 Stage) for Limestone

The work schedule has been designed to ensure systematic progression from surface investigations to limited sub-surface evaluation and data integration.

Time Schedule - Proposal for Preliminary Exploration (G-3 Stage) for Limestone in Adividevulapalli Block, Nalgonda District, Telangana No.of BH:08 (50m depth each); Schedule timeline: Ten (10) months													
S. No	Activity	Months											
		1	2	3	Review-1	4	5	6	Review-2	7	8	9	10
1	Camp Establishment												
2	Geological mapping												
3	Sampling (BRS)												
4	Sampling analysis (BRS)												
5	Survey (Boundary points and Drill collars)												
6	Drilling												
7	Core logging & sampling												
8	Sampling analysis (Drill core samples)												
9	Laboratory analysis (Petrography & Bulk Density)												
10	Camp winding												
11	Report preparation and submission												

8. Break-up of expenditure

Cost Estimate - Preliminary Exploration (G-3 Stage) for Limestone in Adividevulapalli Block, Nalgonda District, Telangana. Total Block Area- 5 sq.km, Completion time - 10 months, Review- 3 and 6- months; Drilling 400m in 8 BHs (50 m each) Implementing Agency: GMMCO Technology Services Limited		
S. No	Item of Work *	Estimated Cost of the Proposal Total Amount (Rs)
A	Geological Mapping & Other geological work & Surveying	32,61,954
B	Drilling	34,04,000
C	Chemical analysis and Laboratory studies	10,52,900
E	Geological Report Preparation	2,50,000
F	Peer review charges	30,000
G	Preparation of Exploration Proposal	1,54,377
H	Total Estimated Cost without GST	81,53,231
I	Provision for GST (18% of H)	14,67,582
J	Total Estimated Cost with GST	96,20,813
Say Rs. in Lakhs		96.21

Details Break-up of expenditure

Preliminary Exploration (G-3 Stage) for Limestone in Adividevulapalli Block, Nalgonda District, Telangana. Total Block Area- 5 sq.km, Completion time- 10 months, Review- 3 and 6- months; Drilling 400m in 8 BHs (50 m each)						
Implementing Agency: GMMCO Technology Services Limited						
S. No.	Item of Work *	Unit *	Rates as per NMET SoC 2025		Estimated Cost of the Proposal	
			SoC-Item No.	Rates as per SoC (a)	Qty. (b)	Total Amount (Rs) (a*b)
A	Geological Mapping Other Geological Work & Surveying					
i	Geological mapping, (1:4000 scale)	Sq.km	1.1	18,300	5	91,500
ii	Charges for Geologist per day (Field) for geological mapping & trenching work	day	1.2.1a(b)	14,500	120	17,40,000
iii	Charges for Geologist per day (HQ)	day	1.2.1a(a)	10,500	30	3,15,000
iv	Labours Charges for field work	day	5.8	556	240	1,33,440
v	Charges for one Sampler per day (1 Party)	one sampler per day	1.2.1b	7,850	31	2,43,350
vi	Labours Charges; Bedrock, Core sampling and preparation of sample	Per day	5.8	556	124	68,944

vii	Charges for Surveyor	Per day	1.3.1	10500	30	3,15,000
viii	Labours charges for Surveyor	Per day	5.8	556	120	66,720
ix	Surveyor for topographic survey/DGPS Survey and for BH fixation & RL determination (8 BH plus 4 Boundary points)	Per Point of observation	1.3.2	24000	12	2,88,000
	Sub Total- A					32,61,954
B	Drilling (In-house)					
i	Drilling (In-house)	per m	2.2.1.1c	5,500	400	22,00,000
ii	Land / Crop Compensation (in case the BH falls in agricultural Land)	per BH	5.6	30,000	8	2,40,000
iii	Construction of concrete Pillar (12"x12"x30")	Per borehole	2.2.7	2,000	8	16,000
iv	Borehole plugging by cement	Lum sum per BH	2.2.8	10,000	8	80,000
v	Miscellaneous Charges (Transportation of Drilling Rig, Accommodation for Drill Camp, Camp setting and winding, construction of Approach Road and Drill core preservation)	Drilling cost	2.2.9	0.25		5,50,000
vi	Core Preservation	m	5.3	1590	200	3,18,000
	Sub Total- B					34,04,000
C	LABORATORY STUDIES					
1	Chemical Analysis					
i	Major oxides (WD XRF)- (oxides + traces -24 elements)	Per Sample	4.1.17a	4,200	220	9,24,000
	External Check (10%)	Per Sample	4.1.17a	4,200	22	92,400
ii	Physical & Petrological Studies					
	a. Preparation of thin section	Per Sample	4.3.1	500	5	2,500
	b. Study of thin section	Per Sample	4.3.4	2800	5	14,000
	c. Bulk Density	Per Sample	4.8.3	2500	8	20,000
	Sub Total C					10,52,900
	Total A to C					77,18,854
D	Geological Report Preparation	5 Hard copies with a soft copy	5.2	Total cost exceeding 50 lakh but less than 150 lakh. 2.5 lakh		2,50,000
E	Peer review Charges	As per EC decision				30,000
F	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs. 5.0 Lakhs whichever is less		1,54,377
G	Total Estimated Cost without GST					81,53,231
H	Provision for GST (18% of G)					14,67,582
I	Total Estimated Cost with GST					96,20,813
Say Rs. In Lakhs						96.21

References

King, W. (1872). On the geological structure and lithological succession of the Palnad Sub-Basin, Cuddapah Basin. *Geological Survey of India Memoir*, **8**, 1-60.

Krupanidhi, K.V.J.R. (1966-67). Investigation for limestone in parts of the Palnad Sub-Basin, Andhra Pradesh. *Geological Survey of India, Unpublished Report*.

Nageswara Rao, C. & Varaprasada Rao, C.J.R. (1967–68). Limestone investigations in Dachepalle-Piduguralla sector, Palnad Sub-Basin. *Geological Survey of India, Unpublished Report*.

Ramalingaswamy, G. (1976-77). Geological mapping in parts of Survey of India Toposheet No. 56P/10, Palnad Sub-Basin. *Geological Survey of India, Unpublished Report*.

Chakradhar, R., et al. (1980-83). Systematic investigation of Narji Limestone in the Palnad Sub-Basin, Andhra Pradesh. *Geological Survey of India, Unpublished Report*.

Ravindra Babu, B., et al. (1989). Stratigraphy and lateral continuity of limestone units in the Palnad Sub-Basin, Cuddapah Basin. *Journal of the Geological Society of India*, **33**, 245–258.

Ramakrishnaiah, K., et al. (2012-13). Geological mapping and evaluation of limestone deposits in the Palnad Sub-Basin. *Geological Survey of India, Unpublished Report*.

Jagadishwar Babu, K. & Tirumurugan, R. (2013). Chemical evaluation of Narji Limestone for cement manufacture, Palnad Sub-Basin. *Geological Survey of India, Unpublished Report*.

Sugathan, P. & Rimpal Kar (2013). Geological and geochemical appraisal of Narji Limestone, Palnad Sub-Basin, Andhra Pradesh. *Geological Survey of India, Unpublished Report*.

Rimpal Kar (2013). G-4 stage (UNFC) exploration for limestone in the Mudimanikyam area, Palnad Sub-Basin, Andhra Pradesh. *Geological Survey of India, Field Season Report*.

Plates

Plate -1: Location map of the proposed block

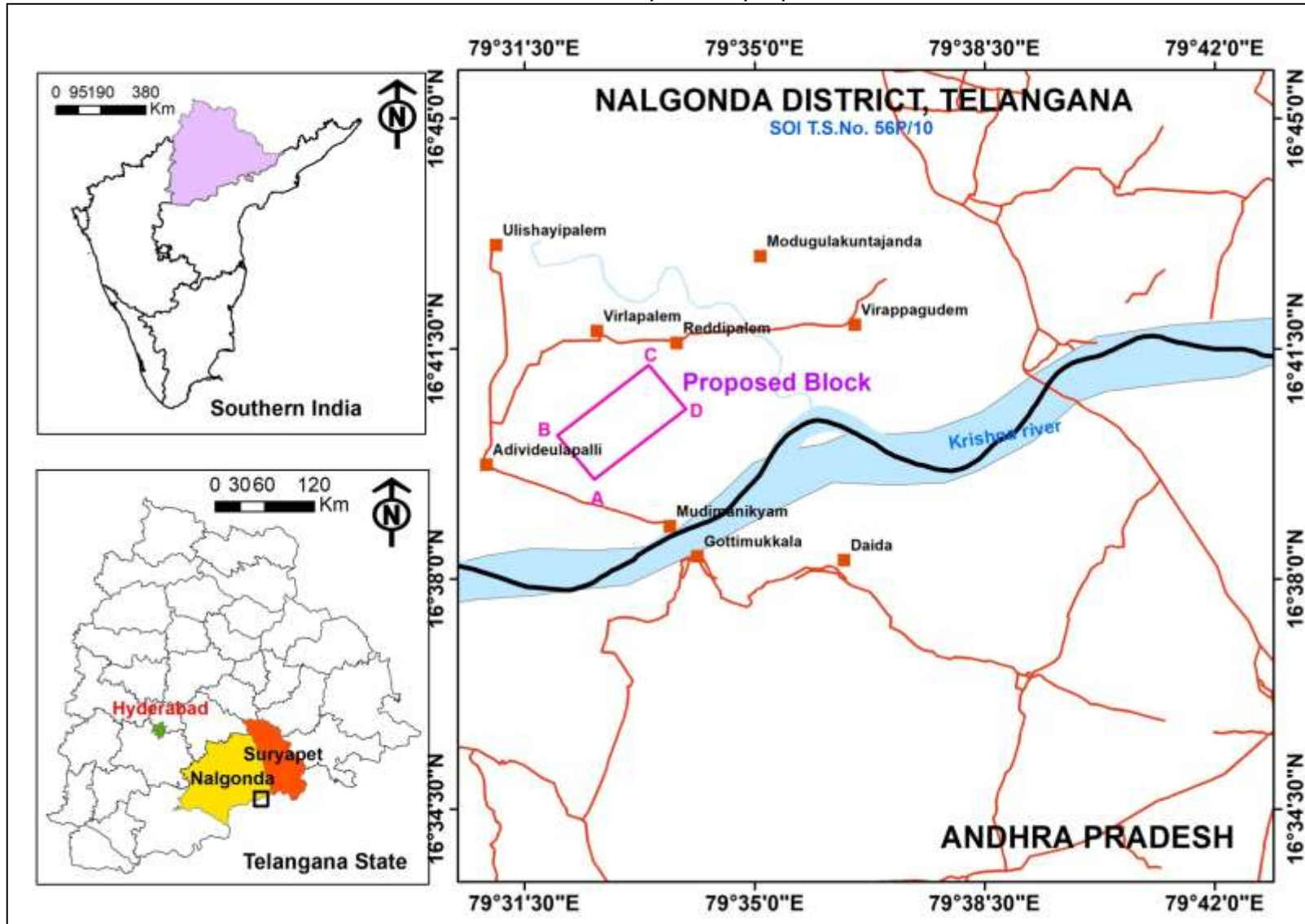


Plate-2: Survey of toposheet No. 56P/10 showing the Adividevulapalli proposed block

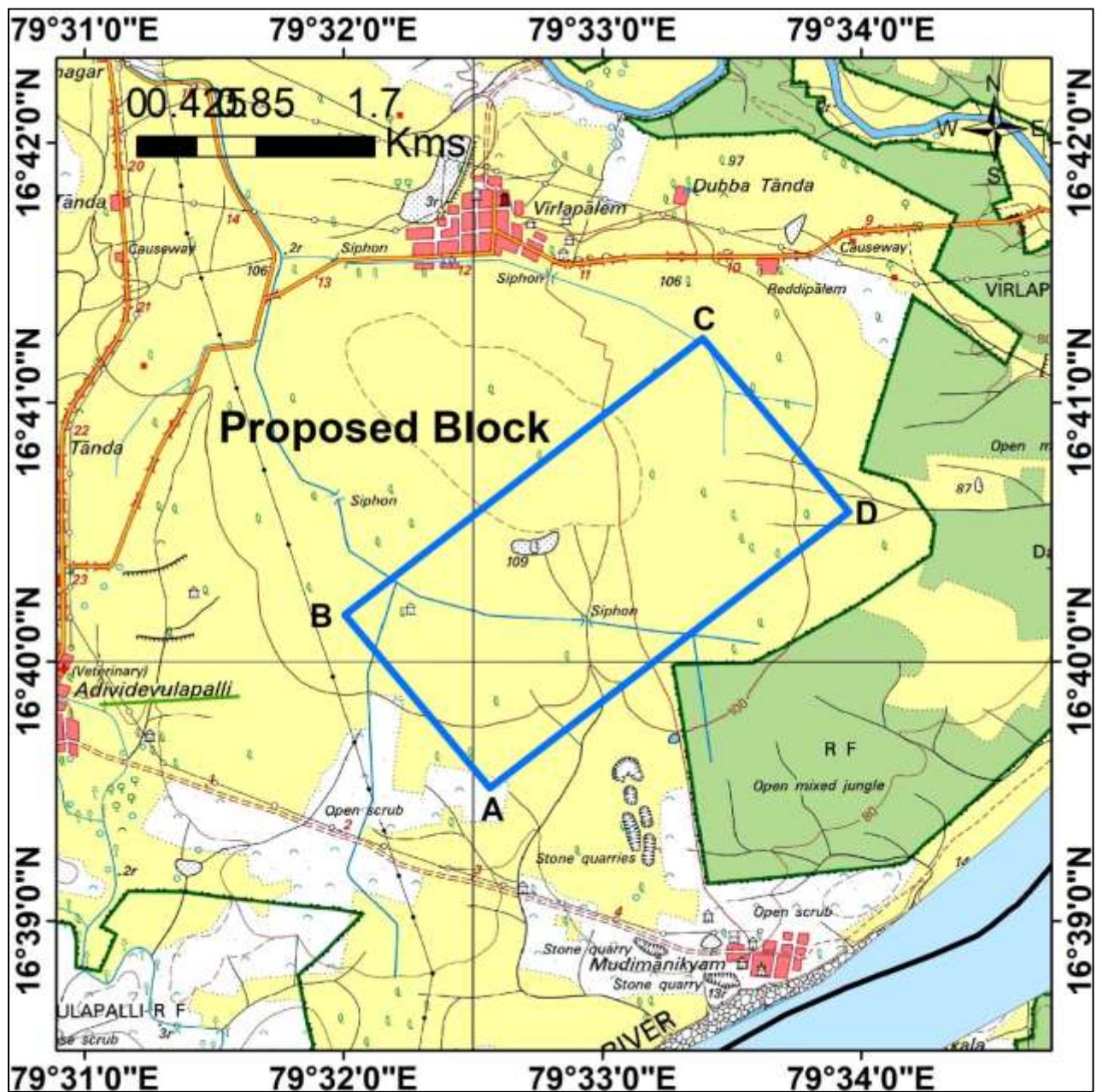


Plate-3: Geological map of toposheet no.56P/10 (1:50,000 scale) (Source. GSI, NGDR)

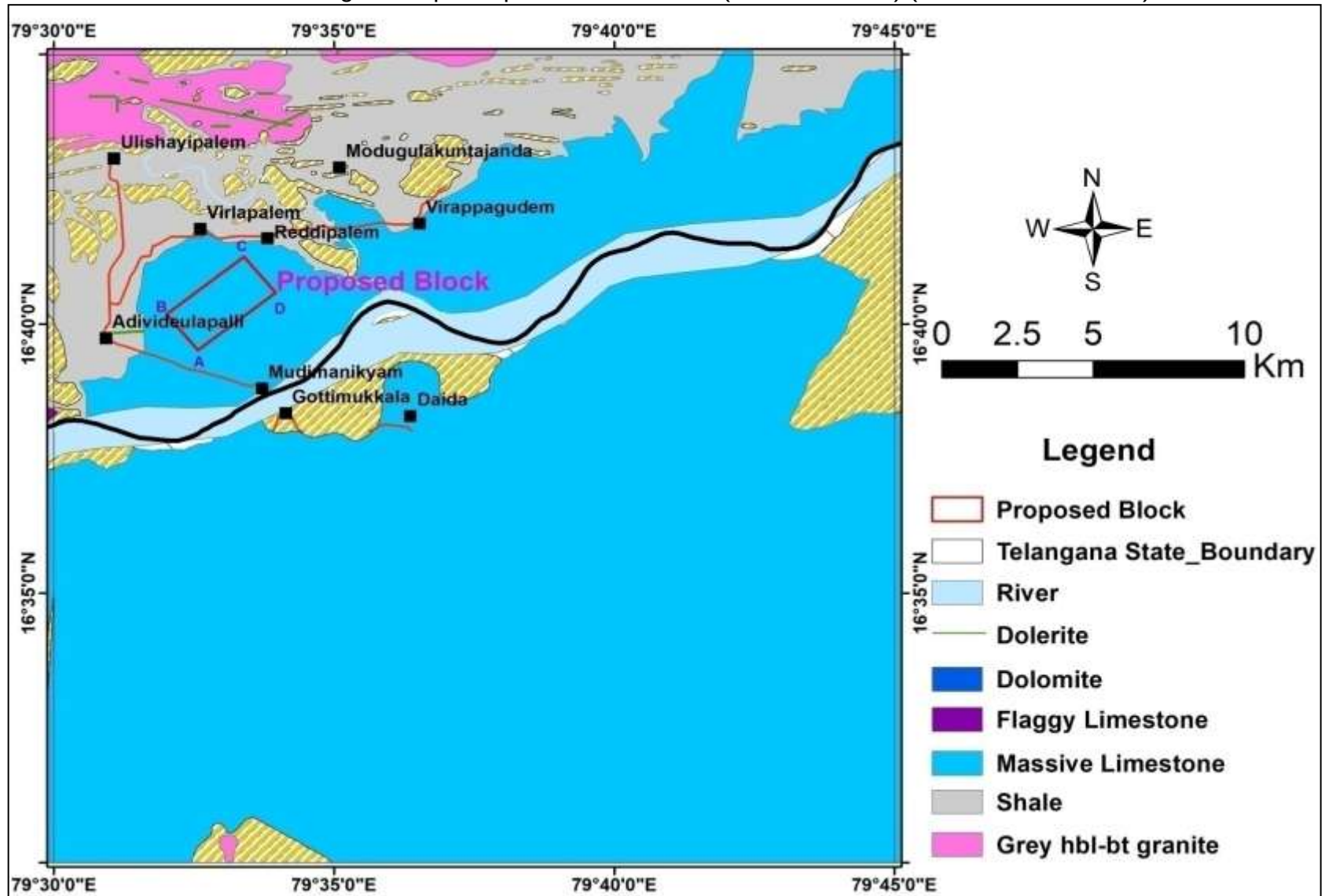


Plate - 4: Geological map of toposheet no.56P/10 (1:12,500 scale) showing the proposed block (Source. GSI, NGDR)

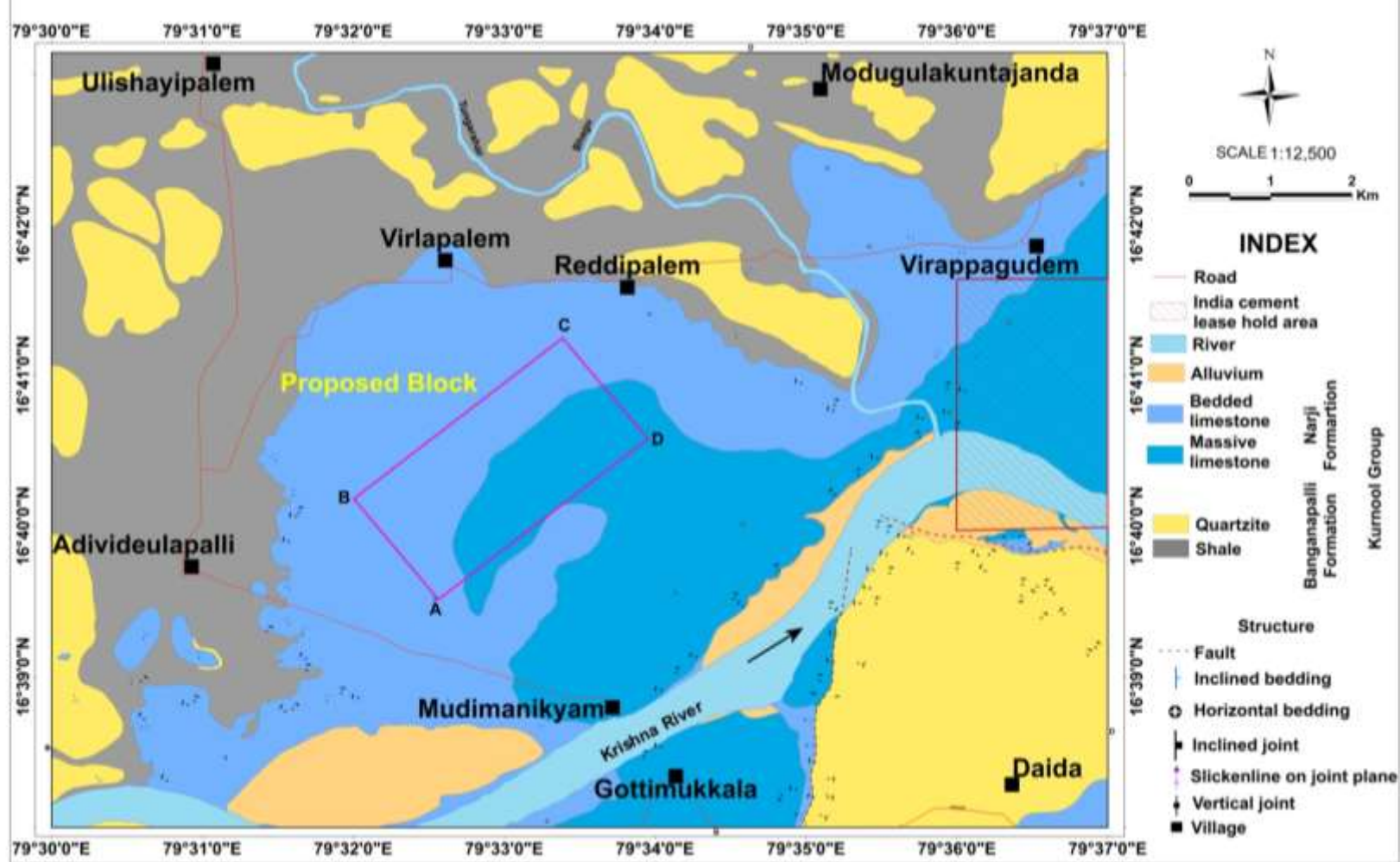


Plate - 4: Toposheet no.56P/10 and proposed borehole locations

