

PROPOSAL FOR NMET FUND

**Proposed Work Plan and Estimated Cost of G2
Level Exploration for Dommaranandyala-Veparala
Limestone Block over an extent of 2010 Ha. in
Mylavaram Mandal, YSR Kadapa District,
Andhra Pradesh.**



Directorate of Mines and Geology
Government of Andhra Pradesh
5th & 6th Floors, B-Block, Sri Anjaneya Towers, Ibrahimpatnam,
Krishna Dist. Andhra Pradesh-521456

January - 2018

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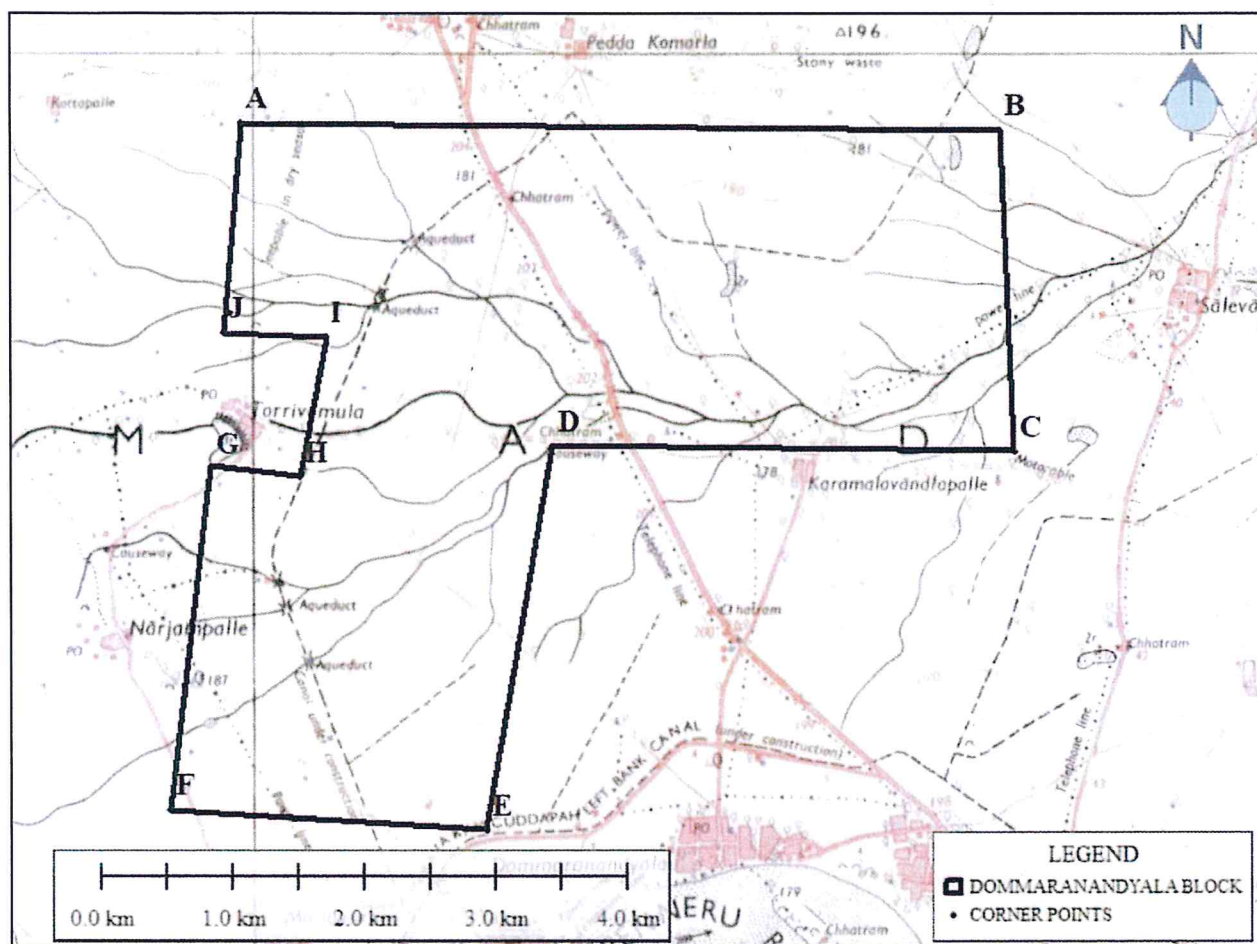
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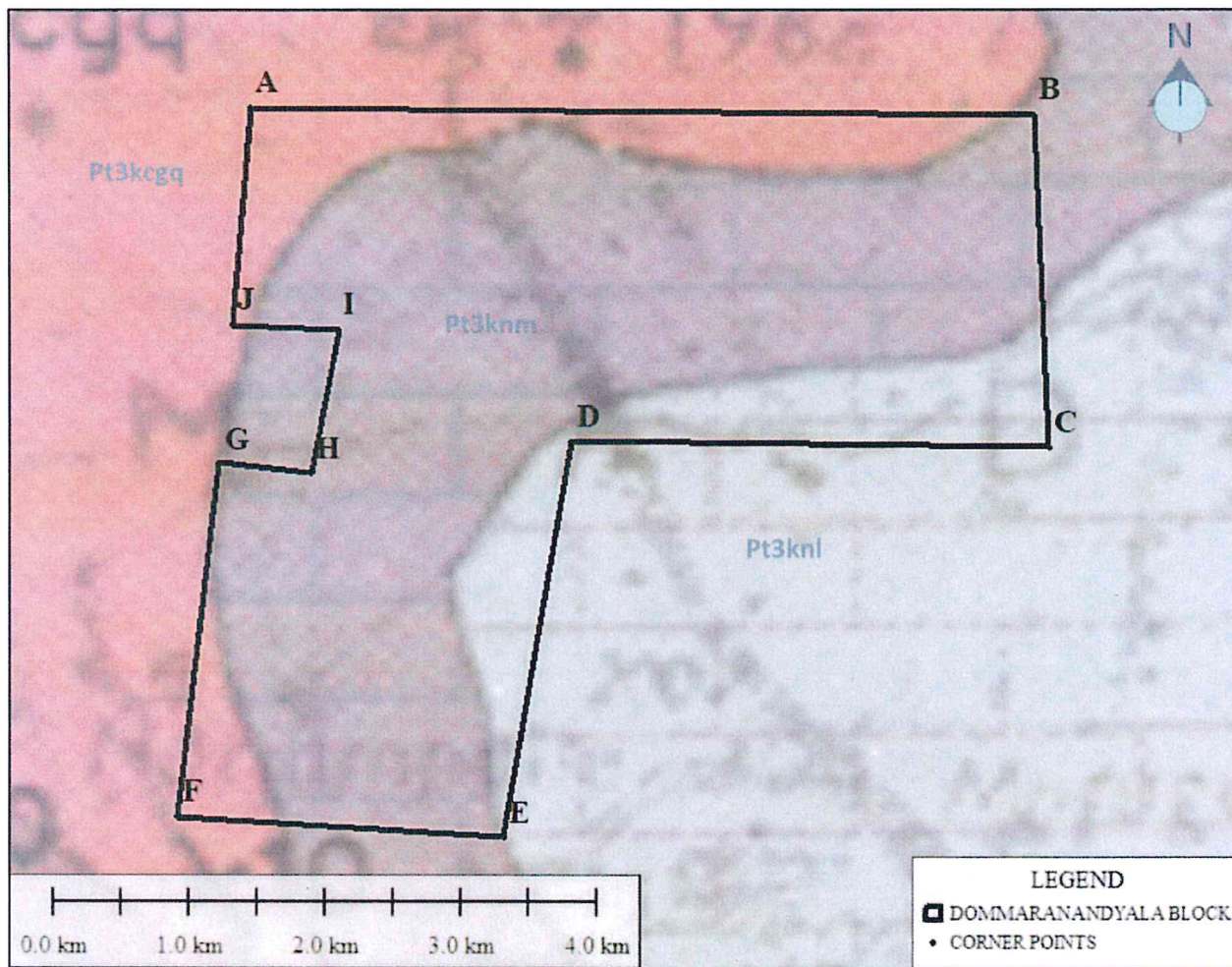
Map 2: Location of Block on Toposheet with boundary co-ordinates



LABEL	LONGITUDE	LATITUDE
A	78° 19' 57.6486" E	14° 54' 42.6124" N
B	78° 23' 04.4633" E	14° 54' 40.7647" N
C	78° 23' 08.0653" E	14° 53' 21.3954" N
D	78° 21' 14.0227" E	14° 53' 22.9158" N
E	78° 20' 57.4222" E	14° 51' 48.3299" N
F	78° 19' 40.1927" E	14° 51' 53.1980" N
G	78° 19' 50.1498" E	14° 53' 17.4723" N
H	78° 20' 11.9868" E	14° 53' 15.1810" N
I	78° 20' 18.5100" E	14° 53' 50.0729" N
J	78° 19' 53.3598" E	14° 53' 51.2092" N

C. GEOLOGY OF THE AREA

Dommaranandyala - Veparala block is North-South than East-West trending polygonal block covering an area of approximately 2010 Ha. Cement grade limestone occurs in the proposed block mostly on the Narji massive limestone formation which is a part of Kurnool formation of Cuddapah Super Group. Western boundary of the block is restricted by Gandikota Quartzite and eastern boundary delimited by flaggy limestone of the Narji formation. It is plain country with gently undulations falls in private patta lands.



1. Geological map of proposed block

Pt3knl – Narji Flaggy Limestone of Kurnool Group
Pt3knlm – Narji Massive Limestone of Kurnool Group
Pt3kcgq – Gandikota Quartzite of Cuddapah Group

D.PROPOSAL FORM:**NATIONAL MINERAL EXPLOATION TRUST (NMET)****Proforma for submission of Mineral Exploration Proposals**

1	Title of project	Dommaranandyala-Veparala Block																																	
2	Mineral/Minerals to be explored	Limestone																																	
3	Objective	G2 level exploration to be conducted passing through G3 level exploration for making block ready for auction.																																	
4	Level of Proposed Exploration (G4/G3/G2/G1)	G2																																	
5	State/District/Block/Area	Andhra Pradesh/YSR Kadapa Mylavaram Mandal / Dommaranandyala – Veparala Area																																	
6	Toposheet no.	57 J/5 (Annexure 1)																																	
7	Total area and coordinates of the area / block (Latitude/Longitude)	20.105 sq.km area <table border="1"> <thead> <tr> <th>ID</th> <th>Longitude</th> <th>Latitude</th> </tr> </thead> <tbody> <tr><td>A</td><td>78° 19' 57.6486" E</td><td>14° 54' 42.6124" N</td></tr> <tr><td>B</td><td>78° 23' 04.4633" E</td><td>14° 54' 40.7647" N</td></tr> <tr><td>C</td><td>78° 23' 08.0653" E</td><td>14° 53' 21.3954" N</td></tr> <tr><td>D</td><td>78° 21' 14.0227" E</td><td>14° 53' 22.9158" N</td></tr> <tr><td>E</td><td>78° 20' 57.4222" E</td><td>14° 51' 48.3299" N</td></tr> <tr><td>F</td><td>78° 19' 40.1927" E</td><td>14° 51' 53.1980" N</td></tr> <tr><td>G</td><td>78° 19' 50.1498" E</td><td>14° 53' 17.4723" N</td></tr> <tr><td>H</td><td>78° 20' 11.9868" E</td><td>14° 53' 15.1810" N</td></tr> <tr><td>I</td><td>78° 20' 18.5100" E</td><td>14° 53' 50.0729" N</td></tr> <tr><td>J</td><td>78° 19' 53.3598" E</td><td>14° 53' 51.2092" N</td></tr> </tbody> </table> (Annexure 1 on SoI toposheet, Annexure 2 on GSI Geological map)	ID	Longitude	Latitude	A	78° 19' 57.6486" E	14° 54' 42.6124" N	B	78° 23' 04.4633" E	14° 54' 40.7647" N	C	78° 23' 08.0653" E	14° 53' 21.3954" N	D	78° 21' 14.0227" E	14° 53' 22.9158" N	E	78° 20' 57.4222" E	14° 51' 48.3299" N	F	78° 19' 40.1927" E	14° 51' 53.1980" N	G	78° 19' 50.1498" E	14° 53' 17.4723" N	H	78° 20' 11.9868" E	14° 53' 15.1810" N	I	78° 20' 18.5100" E	14° 53' 50.0729" N	J	78° 19' 53.3598" E	14° 53' 51.2092" N
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8	Background information a. Previous work b. Present status of the block Mineral concession status (leases)	The proposed area is a part of Narji limestone, Kurnool group of Kadapa Super group of late Proterozoic Era. The Narji limestones are massive, predominantly grey to bluish grey in color, fine grained in nature and exhibit conchoidal fracture. The strike of the formation is NW-SE and flat to low (3-5 degrees) dipping towards NE with thin veneer of soil cover. As per the GSI data, the quality of Limestone shows 45.32 to 47.72% Cao; 10.45 to 13.97% SiO₂; 1.58 to 1.95% Fe₂O₃ and 0.53 to 0.60% MgO is of Cement grade. (Annexure-2) a. Previous work GSI carried out extensive geological work at different times from 1940 to 1990 and demarcated Narji limestone formation in the area (Geological Quadrangle Map																																	

		57J) • The quality of Narji limestone around Jammalamadu area is 45.32-47.72% Cao, 10.45 to 13.97% SiO₂, 1.58 - 1.95% Fe₂O₃, 0.53-0.60% MgO which is cement grade. (attached – writeup of 57 J Geological Map last paragraph as Annexure 2) • Based on the above, 5 cement plants established in the vicinity of this area in the same geological formation is indicative of the occurrence of cement grade limestone. • As the above criteria well confirms the occurrence of cement grade limestone in the area (G4), it is more apt to take up G2 level of exploration at 400m drilling grid to conserve the time lines. b) Present status of the block It is free hold area as it is not covered under any RP/PL/ML.
9	Status of various clearances	Local/Forest/Others -- Private Patta Lands
10	Brief account of work proposed in the area and expected outcome	
10.1	GEOLOGICAL MAPPING	Geological mapping will be carried out on 1:5000 scale to delineate different lithological units and establish stratigraphy of the area.
10.2	TOPOGRAPHICAL and DGPS SURVEY	Topographic Survey will be carried out at 2m contour interval. DGPS Survey will be done for BH Collar & Block Boundary points for precise location coordinates.
10.3	CORE DRILLING	A total of 104 drill holes are planned covering 20.105 sq.km of block area with 400 m grid interval with 40m average depth with total core drilling of 4160 m. (Annexure 4 – Drill hole plan)
10.4	SAMPLE PREPARATION FOR CHEMICAL ANALYSIS	4160 core samples and 416 check samples (total 4576) will be prepared in the block for analysis at 1 m interval.
10.5	ANALYTICAL RESULTS	4160 core samples & 416 check samples (Total-4576) chemically analyzed to determine major-minor oxides (SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , MnO, Na ₂ O, K ₂ O, MgO, CaO, Ti ₂ O, P ₂ O ₅), at NABL accredited laboratory.
10.6	PROCESSING DATA AND INTERPRETATION	All maps, data compilation and interpretation would be carried out at MERIT Head Office, Vijayawada.
10.7	PROGRESS REPOT	Final geological report prepared incorporating all the works carried out along with quality and quantity. Report

		would enable G2 level of exploration based on potentiality of the block.
11	Details of work proposed in the area	The work elements, unit rate, quantity and the estimated cost of exploration in the block has been prepared and enclosed as Annexure-5
I	Provide time line of various activities proposed	Detailed Exploration Activity Vs timeline chart has been enclosed as Annexure-6
II	Tentative date of submission of interim and final reports	As per Time line chart or as suggested by NMET Technical Committee.
III	Total Estimated Cost of the Project in Rupees lakhs	An amount of INR 4,37,89,271/- (Indian Rupees Four Crores Thirty-Seven Lakhs Eighty-Nine Thousand Two Hundred and Seventy-One Only + GST Applicable-Extra) likely to be incurred for conducting the above mentioned G2 level of exploration.

(The proforma is for illustrative purpose only, to indicate various fields. It may be suitably modified as per the requirement of the project)

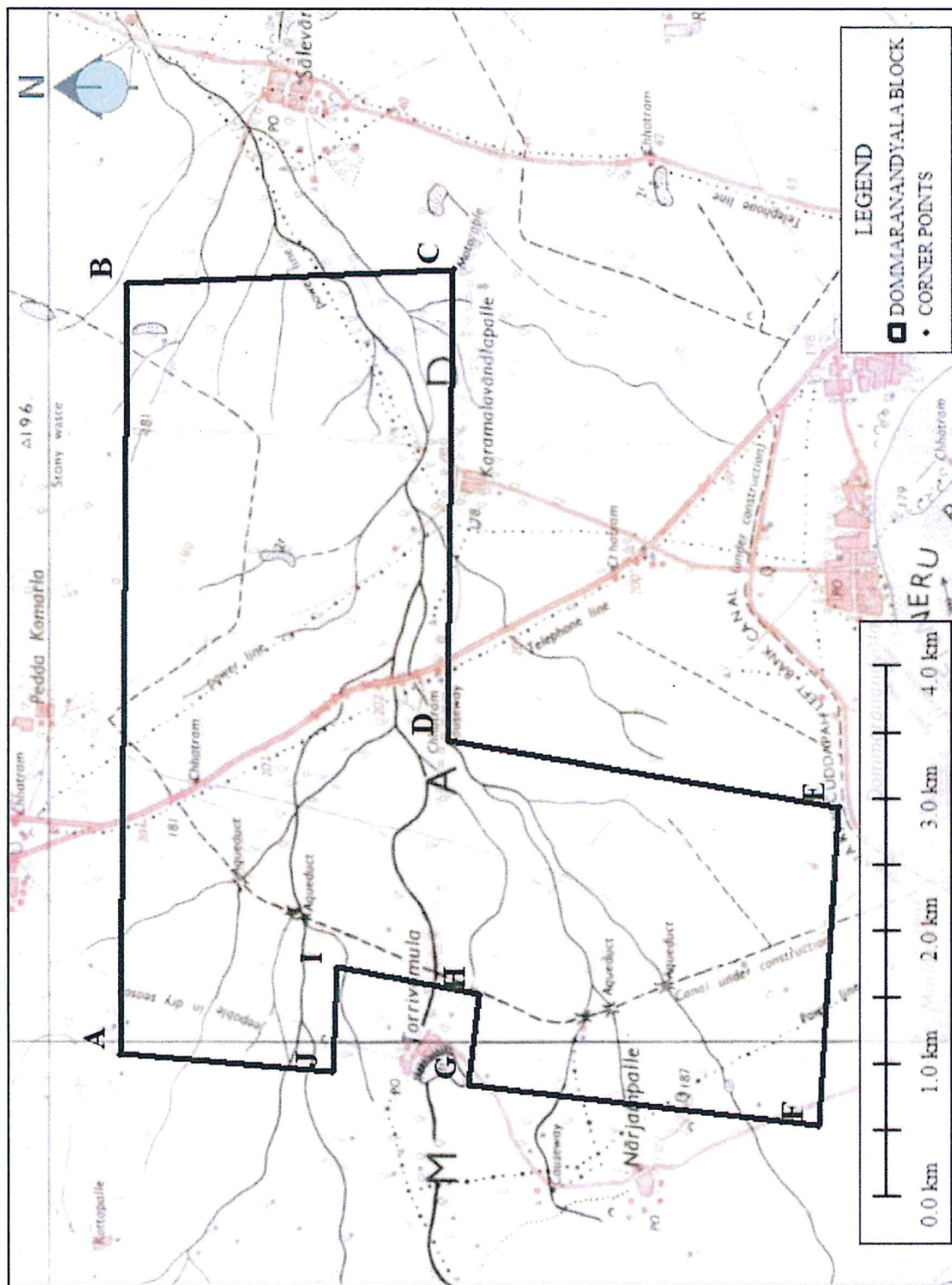


(B.Sreedhar, IAS)

Director Mines and Geology (FAC),
Secretary to Government (Mines), Andhra Pradesh
& Chairman, Executive Committee, MERIT

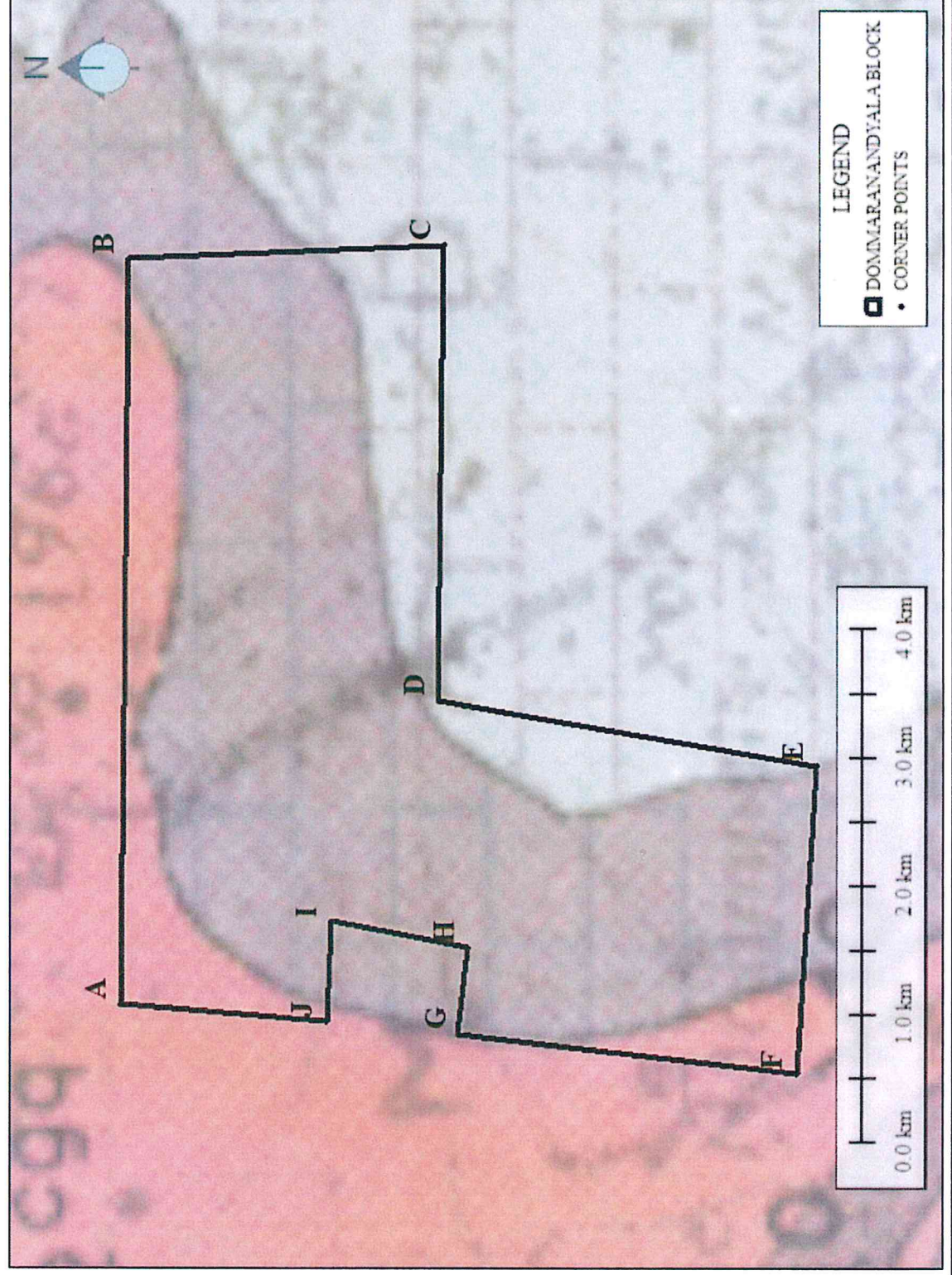
Dated: 19.01.2018

DOMMARINANDYALA - VEPARALA LIMESTONE BLOCK, DOMMARANANDYALA
MYLAVARAM MANDAL, YSR KADAPA DISTRICT, A.P., TOPOSHEET NO 57 J/5



GEOLOGICAL MAP OF THE AREA (Part of GSI Map No: 57J)

DOMMARINANDYALA – VEPARALA LIMESTONE BLOCK, DOMMARANANDYALA
MYLAVARAM MANDAL, YSR KADAPA DISTRICT, A.P., TOPOSHEET NO 57 J/5



GEOLOGY

The Quadrangle comprises parts of Cuddapah, Kurnool and Anantapur districts of Andhra Pradesh. Two prominent hill ranges are seen in the area. The Polkonda range runs NW-SE to E-W having elevations ranging from 316m to 902m above msl, while the Lankamalla hills run NNW-SSE ranging in heights from 327m to 888m above msl. These two ranges almost merge in the south-eastern part of the area, east and southeast of Cuddapah town. The rest of the area is occupied by hills of lower elevations, aligned NNW-SSE, N-S to NE-SW, forming collectively an arcuate chain of hills and intervening valley flats. The southern part of the area around Kadiri and Rayachoti has a rolling topography. The Quadrangle area is drained by the Penneru river and its tributaries Papagani, Kunderu, Chitravati and Mandavi rivers which form a dendritic drainage pattern.

The area comprises rocks of Archaean and Proterozoic age. Amphibolite and biotite schist occurring as few small lenses, form the oldest rocks in the area. The southern part of the area is occupied mainly by rocks of Peninsular Gneissic Complex. These comprise grey granite, granodiorite, granite gneiss, migmatite and banded biotite-hornblende gneiss. Only the biotite-hornblende gneiss form low lying area in the south-western corner, west of Kadiri schist belt. Their contacts are transitional. Of these variants granodiorite is prominent along the eastern margin of Kadiri schist belt, occurring as bouldery outcrops of coarse grained, gray coloured rock.

The rocks of Dharwar Supergroup are exposed in two different belts, namely Kadiri schist belt in the southwest and Veligallu schist belt in the southern part of the area. The Kadiri schist belt comprises mainly acid volcanic rocks, with a few bands of basic volcanics, while the Veligallu schist belt consisting of two N-S running parallel belts which are around 3Km apart in the south and about 500 metres apart at their northern end, comprises metabasalt and a varied assemblage of metamorphic rocks, grouped under "Unclassified Metamorphics".

The acid volcanics of Kadiri belt comprise quartz porphyry, metadacite and meta-rhyolite. The quartz porphyry is characterised by opalescent quartz felts and micro-perthite. Metadacite shows partly sericitised plagioclase phenocrysts, in a groundmass of crushed quartz. Metarhyolite is dark gray, consisting of phenocrysts of microcline and plagioclase in a very fine grained matrix of quartz, feldspar, and biotite. The basic volcanic rocks of the schist belts mainly consist of hornblende schist and schistose amphibolite, which are characterised by plagioclase and hornblende with vesicular structure, with quartz-filled amygdalae. The 'unclassified metamorphics' of Veligallu schist belt comprise quartz-muscovite schist, chlorite schist, mica

schist, micaceous quartzite, fuchsite quartzite, and very thin bands of banded hematite quartzite and synclastic conglomerate.

The Post-Dharwar intrusives comprise pink granite, dolerite dykes, gabbro dykes and quartz veins. The pink granite occurs in the high plateau of Kadiri area. The rock is medium grained, equigranular to coarse grained porphyritic, comprising pink orthoclase, plagioclase, and quartz, with accessory biotite, hornblende, fluorite and sphene. The felspar phenocrysts measure upto 3cm to 6cm size. Dolerite dykes, trending NW-SE, E-W to WNW-ESE and NE-SW cut across the Peninsular Gneiss and the rocks of Dharwar Group, in the southern part of the area. Dykes of gabbro trending N-S to NE-SW are seen east of the Kadiri schist belt, near Dorigallu. Numerous quartz reefs cut across the Peninsular Gneiss trending NW-SE, E-W and NE-SW.

Rocks of the Cuddapah Supergroup, rest unconformably on the Peninsular Gneissic Complex and the Dharwar group of rocks. They are divided into Papagni Group, Chitravati Group and Nallamalai Group which are separated from each other by unconformities.

The oldest unit of Papagni Group is Gulcheru Formation. This consists of basal conglomerate/grit, arkose and quartzite with shale intercalations. Vempalle Formation overlies Gulcheru. It consists of stromatolitic dolomite, dolomitic shale, mudstone, quartzite and chert.

The Chitravati Group consists of Pulivendla Formation, Tadpatri Formation and Gandikota Formation. The oldest unit, Pulivendla Formation occurs as narrow arcuate bands concave to north. It comprises quartzite with shale/limestone/dolomite intercalations and basic flows. The basal 20 metres of this unit comprises conglomerate, having a disconformity with the underlying Vempalli Formation. Pulivendlas are overlain by Tadpatri Formation. It is mainly an argillaceous formation consisting of upper shale with quartzite intercalations, upper middle shale with limestone/dolomite intercalations, lower middle shale with tuffs and lower shale with stromatolitic dolomite intercalations. Gandikota Formation lies conformably over Tadpatri Formation. The unit consists of shale and glauconitic quartzite in alternating sequence.

The older unit of Nallamalai Group is Bairenkonda Formation, which is dominantly an arenaceous unit. It consists of a basal oligomict conglomerate with pebbles of quartzite, chert, jasper and vein quartz set in a siliceous and ferruginous matrix. The conglomerate is followed by quartzite/grit, with shale intercalations. The Bairenkondas overlie the rocks of Papagni Group with a profound angular unconformity in the area south of Cuddapah. Further south it rests directly

over the granite basement. The Cumbum Formation rests conformably over Bairenkonda Formation. The contact is marked by ferruginous chert, jasper and lensoid dolomite. This Formation consists of shale and dolomite at the base, quartzite, calcareous shale and phyllite with dolomite intercalations in the middle and quartzite with shale intercalations on top.

The intrusives in Cuddapah Supergroup are medium to coarse grained melanocratic basic sill occurring within Vempalli and Tadpatri Formations. The rock comprises augite, plagioclase, olivine with accessory magnetite and hornblende and rarely quartz. It shows subophitic, ophitic to hypidiomorphic, inequigranular and glomeroporphyritic textures. Greenish black, fine grained basaltic flows occur below Pulivendla quartzite. The rock shows augite altering to actinolite and chlorite, while plagioclase is partly altered to sericite and epidote. The basaltic flows are in places vesicular and amygdular. The amygdules comprise calcite, quartz, epidote, chert and jasper.

Rocks of Kurnool Group rest unconformably over Cuddapah Supergroup. The basal unit of Kurnool Group, Banganapalle Formation comprises conglomerate, followed by grit, quartzite and shale. The conglomerate is oligomictic, consisting of subrounded pebbles of chert, jasper, quartzite and barytes. Narji limestone rests conformably over Banganapalle Formation and consists of lower flaggy limestone, middle massive limestone and upper flaggy limestone with a thin glauconitic ferruginous quartzite. Well-laminated, thinly bedded ochrous, Owk shale overlies Narji limestone. The Owk shale is overlain by Paniam Formation which is mainly a quartz arenite with thin basal conglomerate. The succeeding Kolikuntla Formation consists of light grey to dark grey, flaggy limestone, with quartzite intercalations. The topmost formation of Kurnool Group, Is Nandyol Formation which consists of purple calcareous shale and upper shaly limestone.

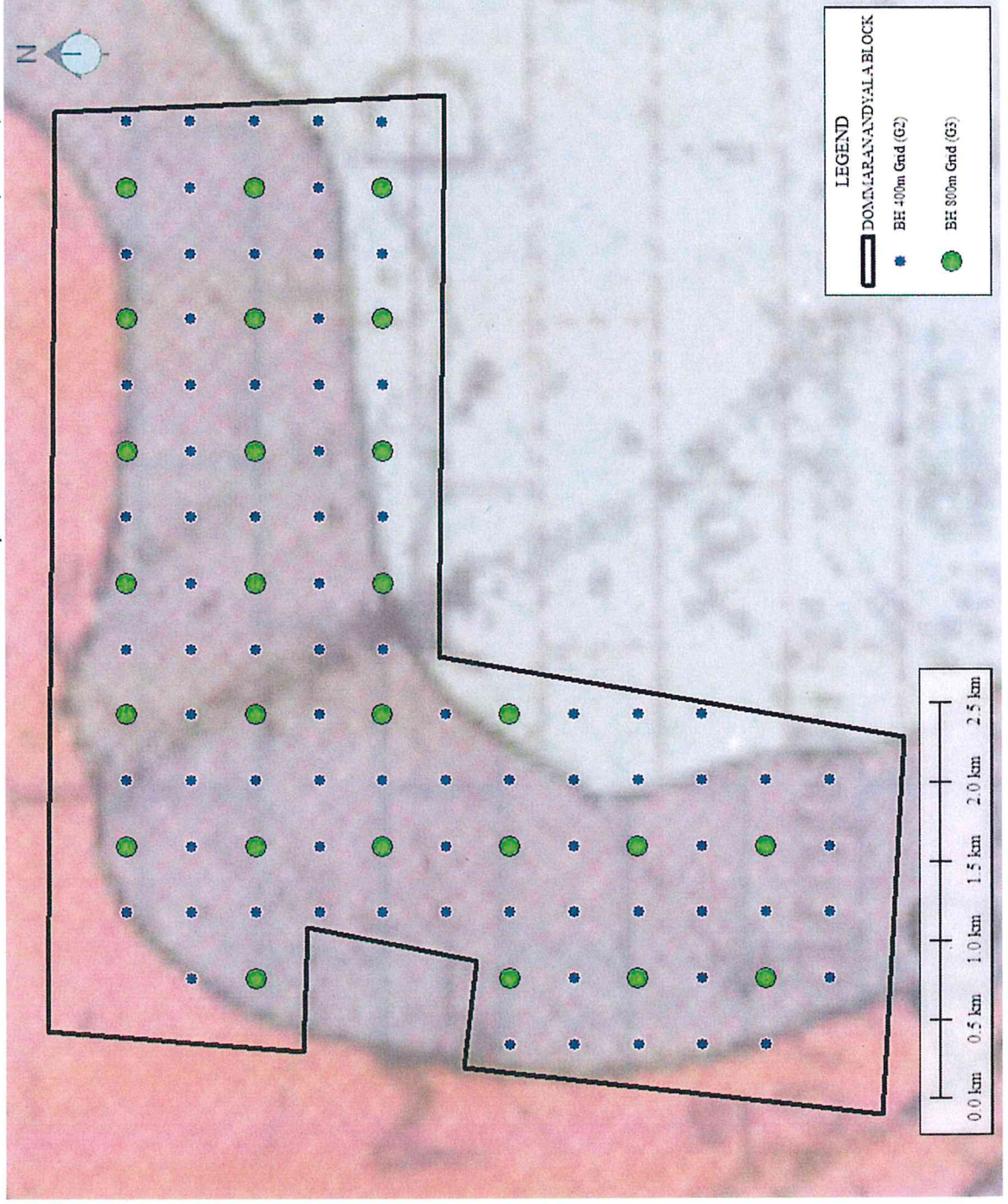
The deformational imprints in the area are manifested by folds of various magnitudes, faults, shear zones and lineaments. The Kadiri schist belt, a tightly folded isoclinal syncline strikes NNW-SSE with 60° to 70° westerly dips. The Veligallu schist, also a tightly folded syncline, runs NNW-SSE i.e. almost parallel to the Kadiri schist belt, with dips of 50° to 70° towards WNW and ESE. The Cuddapah Basin has less deformed western half with low angle (10° to 25°) dipping beds. The deformed eastern half of the basin constitute the Nallamalai fold belt, which shows low amplitude open folds to tightly folded isoclinal folds in the western part of the belt, while the eastern part of Nallamalai fold, is a tight isoclinal folded structure. Doubly plunging fold axes trending N-S, are prominent in the Bairenkonda quartzite. Faults along the southern boundary of Kurnool Group, south of Cuddapah extends E-W.

Kottabavi fault runs ENE-WSW and displaces the Cumbum and Kurnool Formations. Rachinnayapalle boundary fault between Kurnool and Cumbum runs NNW-SSE. NE-SW faults occur southeast of Cuddapah. Numerous NW-SE, N-S, E-W, ENE-WSW faults are seen within the Papaghni Group of rocks. Several NNE-SSW to E-W trending faults cut across the Veligallu schist belt and Peninsular Gneissic Complex. Several lineaments running NW-SE, N-S and NE-SW have been brought out by aerial photo studies. Some of these lineaments relate to fractures.

Chrysotile asbestos is developed between Lingala and Brahmanapalle, along the contact of basic sills and Vempalli dolomite. A reserve of 0.256 million tonnes is estimated. Veined barytes (1 to 2m thick) occurs in fissures, faults and joint planes in basic sills and dolomite contact. Thin veins of barytes are seen in basic sills intrusive into Tadpatri shales. The base metal occurrences are observed in the northeastern and eastern part of the area. In a 40km long and 15km wide belt from Jangamarajupalle to Sandragundalakonda, in the northeastern corner of the area, sphalerite, galena, pyrite and chalcopryite are associated with chert and dolomite of Cumbum Formation. In Jangamarajupalle block, the base metal deposit contains 1.08% Zn, 0.86% to 2.91% Pb. In the western flank of Lankamalla hills galena, sphalerite, chalcopryite are found over a strike length of 4 km analysing 1.33% Pb, and upto 1.09% Zn. Minor occurrences of white to light greenish clay pockets occur southwest of Nagasanipalle. Diamond is found in the Penneru river gravel, Chennai and Dorlampalle (57J/14) and near Kottakolakunta and Kanuparti (57J/6). Minor veins of bluish grey and grey quartz containing 4.6 g/t of gold have been reported around Veligallu in the Dharwar unclassified greenstone belt. Minor occurrences of hematite ore are seen near Chimalpenta, Pendlimarri, and north of 265m hill. Limestone occurs mainly near Jammalamadugu - Talamanchipatnam, Koduru-Niduzuvvi areas. The limestone analysed 45.32 to 47.72% CaO, 10.45 to 13.97% SiO₂, 1.58 to 1.95% Fe₂O₃ and 0.53 to 0.60% MgO. In the Jammalamadugu - Talamanchipatnam area more than 2500 million tonnes of limestone is estimated. Ochre occurs near Rajupalem, Siddhavattam and Ullavalapalle. The ochre is red to yellow and is associated with Vempalle shale. Phosphorite associated with stromatolitic dolomite in Peddashettipalle - Vanipenta area shows 23% P₂O₅. Green, grey to white steatite lenses occur at dolomite-basic sill contact near Pulasalinutalepalli. Greenish grey steatite is mined near Nerijampalle. Scheelite is found within quartz veins east of Nambulapalakunta, associated with Veligallu schists. Uranium mineralisation is observed in the Vempalli dolomite. It is also observed in a dolomitic magnesite body associated with pellets of phosphorite.

PROPOSED DRILL HOLE PLAN

DOMMARINANDYALA – VEPARALA LIMESTONE BLOCK, DOMMARANANDYALA
MYLAVARAM MANDAL, YSR KADAPA DISTRICT, A.P., TOPOSHEET NO 57 J/5



Proposed BHs up to G2 -104

Nos @ 40m. – 4160m

- G3-Drilling Grid- 800m – **26Bhs-1040m**
- G2-Drilling Grid- 400m – **78Bhs-3120m**

ANNEXURE: 5**PROPOSED BUDGET PLAN**

DOMMARINANDYALA – VEPARALA LIMESTONE BLOCK, DOMMARANANDYALA
MYLAVARAM MANDAL, YSR KADAPA DISTRICT, A.P., TOPOSHEET NO 57 J/5

S.NO.	Activity	Quantum of Work (A)	Units	Unit price in Rupees. (B)	Total in Rupees (A*B)
1	Geological Mapping on 1:5000 scale ***20.1 sq.km	41	Geological Party days	8021	328861
2	Topographic survey on 2m. contour interval ** 20.1 sq.km	18	Survey party days (2 surveyors)	20900	376200
3	Core drilling in 104 boreholes @ 40m. Each **	4160	mtr	5500	22880000
4	GI sheet core boxes - 5 mtr long (each)***	832	no.s	2000	1664000
5	Logging and Sample preparation * (@30m /day)	139	days	2813	391007
6	Chemical Analysis of Limestone - Major-Minor Oxides (SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , MnO, Na ₂ O, K ₂ O, MgO, CaO, TiO ₂ , P ₂ O ₅) at NABL accredited laboratory**	4576	no.s	3500	16016000
7	Petrographic and Mineralogical study through thin and polished sections **	15	no.s	3200	48000
8	Data processing, Analysis and Geological Report	1	no.s	Lumpsum	2085390
G.Total					4,37,89,271

(Indian Rupees Four Crores Thirty-Seven Lakhs Eighty-Nine Thousand Two Hundred and Seventy-One Only) GST as applicable extra

*

Rates as per MECL Schedule of Charges

**

Reference taken and calculated as per GSI Schedule of Charges

Guidelines on Mineral Exploration Project formulation under NMET

ANNEXURE: 6

PROPOSED EXPLORATION ACTIVITY vs TIME LINE CHART

DOMMARINANDYALA – VEPARALA LIMESTONE BLOCK, DOMMARINANDYALA
MYLAVARAM MANDAL, YSR KADAPA DISTRICT, A.P., TOPOSHEET NO 57 J/5

S.NO.	GEOLOGICAL ACTIVITIES (Proposed work elements)	Quarter wise / Month wise action plan from the date of commencement											
		Q1			Q2			Q3			Q4		
		1	2	3	4	5	6	7	8	9	10	11	12
1	Geological Mapping on 1:5000 scale												
2	Topographic survey on 2m. contour interval												
3	Core drilling in 104 boreholes @ 40m. Each (4160m)												
4	Logging and Sample preparation												
5	Assay Results and Interpretation												
6	DGPS Survey of BH Collars												
7	Processing of data												
8	Geological Report												

* Initially work will be carried out as per G3 exploration norms and will be upgraded to G2 level (rather than straight way going to G2).

F. No. 6/4/2015-NMET /628
Ministry of Mines
National Mineral Exploration Trust

New Delhi, the 19th April, 2018

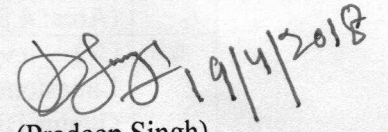
OFFICE MEMORANDUM

Subject: Approval of mineral exploration projects in 7 blocks to be executed by MERIT on behalf of DGM, Andhra Pradesh.

On the recommendation of Technical-cum-Cost Committee (TCC) of NMET, the Executive Committee in its 7th meeting, held on 12th March, 2018 approved mineral exploration projects in 7 blocks at an estimated cost of Rs. 1966.00 Lakh. These projects will be executed by the Mineral Exploration Research and Innovation Trust (MERIT) on behalf of DGM, Andhra Pradesh. The list of projects is enclosed as **Annexure-I**.

2. The mineral exploration projects in these 7 blocks will be funded by NMET as per the costing recommended by the TCC and approved by the Executive Committee. The Implementing Agency shall complete the same as per the approved cost estimates and time schedule, enclosed in **Annexure II to VIII**.

3. The TCC, NMET shall review the progress of ongoing projects and provide update every six months to the Executive Committee. The Implementing Agencies shall submit progress on six monthly basis to NMET.


(Pradeep Singh)
Director, NMET

To
The Director,
Department of Mines & Geology,
5th and 6th Floor, D. No.7-104,
B- Block, Anjaneya Tower, Ibrahimpatnam,
Vijayawada – 521456, Andhra Pradesh

Copy for information to:

1. Sh. D. Mohanraj, ADG, NM-II & Chairman, NMET TCC, Geological Survey of India, Seminary Hills, Nagpur- 440 006
2. The Member Secretary, NMET TCC, MECL, Dr. Babasaheb Ambedkar Bhawan, Seminary Hills, Nagpur- 440 006.

Annexure-I

List of mineral blocks of DGM, AP approved in 7th Executive Committee on 12.03.2018

Sl. No.	Name of the Project/Block	Mineral	Implementing Agency	Estimated cost (in Lakh)
1.	G-2 level exploration for Bhimagundam Limestone Block, in Peddamidium (M), YSR Kadapa District, Andhra Pradesh. (Area:6.979 sq km)	Limestone	To be executed by MERIT on behalf of DGM, AP.	220.00
2.	G-2 level exploration for Gundlakunta Limestone Block, in Peddamidium (M), YSR Kadapa District, Andhra Pradesh. (Area:12.58 sq km)	Limestone	To be executed by MERIT on behalf of DGM, AP.	433.00
3.	G-2 level exploration for Dammar Nandyal-Veparala Limestone Block, in Mylavaram (M), YSR Kadapa District, Andhra Pradesh. (Area: 20.1 sq km)	Limestone	To be executed by MERIT on behalf of DGM, AP.	578.00
4.	G-2 level exploration for Mandipadu Limestone Block, in Dachepalli (M), Guntur District, Andhra Pradesh. (Area: 6.6 sq km)	Limestone	To be executed by MERIT on behalf of DGM, AP.	209.00
5.	G-2 level exploration for Mutyalampadu-Tangeda Limestone Block, in Dachepalli (M), Guntur District, Andhra Pradesh. (Area: 4.8 sq km)	Limestone	To be executed by MERIT on behalf of DGM, AP.	161.00
6.	G-2 level exploration for Tangeda Limestone Block, in Dachepalli (M), Guntur District, Andhra Pradesh. (Area: 7.16 sq km)	Limestone	To be executed by MERIT on behalf of DGM, AP.	225.00
7.	G-2 level exploration for Ramapuram Limestone Block, in Dachepalli (M), Guntur District, Andhra Pradesh. (Area: 4.07 sq km)	Limestone	To be executed by MERIT on behalf of DGM, AP.	140.00
			Total	1966.00

Annexure-IV

COST ESTIMATE FOR G2- EXPLORATION OF LIMESTONE IN DOMMARANANDHYALA-VEPARALA (20.1 sq.km), Kadapa Dist, Andhra Pradesh						
SL.No.	Item of Work	Unit	Base	Financial Year (2017-18)		
			Rate	Esc.Rate	Qty.	Amount
			1.4.90			
A	DRILLING					
1	Surface Drilling (1 Rig)	m.	1714	6780	4160	28204800
2	Transportation (at actuals)	Km.	8.8	31	2000	62000
3	GI Core Box *	each	2000		832	1664000
4	Camp Setting	Drill/ month	68606	244910	1	244910
	Sub Total A					30175710
B	GEOLOGICAL WORK					
1	Survey Party Days (1 party)	day	1180	5840	60	350400
2	Geologist Party days (1 party)	day	1541	7802	120	936240
3	Core Sampling Party days(1 party)	day	525	2809	100	280900
	Sub-Total B					1567540
C	LABORATORY STUDIES					
a	Chemical Analysis					
1	Primary + Check Samples					
	i) for 6 radicals (CaO,MgO,Al ₂ O ₃ ,SiO ₂ ,Fe ₂ O ₃ & LOI)	Nos	490 76x5+110)	2580	4576	11806080
	iii) For additional 2 Radicals SO ₃ & P ₂ O ₅	Nos	186 (110 +76)	972	4576	4447872
b	Physical Analysis					
2	Preparation of thin section	Nos	100	538	15	8070
3	Petrographic Studies	Nos	228	1436	15	21540
	Sub-Total C					16283562
	Total A+B+C					48026812
D	EXPLORATION REPORT (Rs.60000 or 2% of Value which ever is more)					960536
	GRAND TOTAL A to D					48987348
	GST 18%					8817723
	Grand Total : with GST 18%					57805071
						SAY 578 Lakhs
Note:						
1	Revised Rates of Promotional Work done by MECL on behalf of Govt. of India Vide letter No. 37(I)/2006-M.I. dated- 02_07_2014 and based on actual escalation as per RBI indices as on 31-03-2017 and the same has been considered for subsequent year.					
2	Phosphorite rates have been considered as there is no rates for Limestone in Revised Rates of Promotional Work of MoM Schedule of Rates.					
3	* An amount of Rs.2000/- has been considered as per MECL rates approved by Ministry.					

PROPOSED EXPLORATION ACTIVITY vs TIME LINE CHART

DOMMARINANDYALA - VEPARALA LIMESTONE BLOCK, DOMMARINANDYALA
MYLAVARAM MANDAL, YSR KADAPA DISTRICT, A.P., TOPOSHEET NO 57 J/5

S.NO.	GEOLOGICAL ACTIVITIES (Proposed work elements)	Quarter wise / Month wise action plan from the date of commencement											
		Q1			Q2			Q3			Q4		
		1	2	3	4	5	6	7	8	9	10	11	12
1	Geological Mapping on 1:5000 scale												
2	Topographic survey on 2m. contour interval												
3	Core drilling in 104 boreholes @ 40m. Each (4160m)												
4	Logging and Sample preparation												
5	Assay Results and Interpretation												
6	DGPS Survey of BH Collars												
7	Processing of data												
8	Geological Report												

Assuming that two rig utilized @ 10 m. Each per day out put

* Initially work will be carried out as per G3 exploration norms and will be upgraded to G2 level (rather than straight way going to G2).

B. P. Rathin
B.P. Rathin
member secretary
FEC, AMET