MINERAL EXPLORATION PROJECT PROPOSAL

FOR

PRELIMINARY EXPLORATION (G-3 STAGE) FOR BAUXITE IN NITTADGI BLOCK, HONNAVAR TALUKA,UTTAR KANNADA DISTRICT, KARNATAKA

UNDER NMET

(T.S.No.48 J/07& 48 J/08)

Commodity-BAUXITE

(Industrial Mineral**)**

(Date of Submission: 11th Dec 2024)

Submitted by:

PRB INFRAPROJECTS PVT .LTD.
S-3, 2nd Floor Ratan Heights
Medical Square, Untkhana Road
NAGPUR-440024.

To,

THE DIRECTOR AND HOD
National Mineral Exploration Trust
Ministry Of Mines
NEW-DELHI-110001

INDEX

LIST OF ANNEXURES

Summary of the Block for G3 stage exploration

	Features	Details
	Block ID	Nittadagi Aluminous Laterite Block
	Current Exploration Agency	PRB Infraprojects Pvt Ltd
	Previous Exploration Agency	Directorate of Mining & Geology, Karnataka
	Previous Geological Exploration Report	➢ The Directorate of Mining& Geology, Karnataka has carried out geological exploration work in this block during the FS: 1964-73. ➢ GSI has carried out systematic geological mapping in parts of Kanara district during FS 1968-69. ➢ GSI has carried out Reconnaissance Survey for Bauxite in Western Ghat belt in Kabri Honnavar- Apsarkond areas, Uttar Kannada district, Karnataka (Stage G-4) during FS 2016-17.
	Commodity	Bauxite
	Mineral Belt	Southeast of Honnavar on southern bank of Sharavati river (Western Ghat Laterite/ Bauxite)
	Completion Period with entire Time Schedule to complete the project	12Months
	Objectives	1. Geological mapping in 1:4000 scale with 2m contour interval to delineate the surface outcrops of aluminous laterite/bauxite. 2. Systematic collection of Bed Rock samples and analysis. 3. To drill 30Nos. of boreholes on definite grid pattern at 400mx400m as perMEMCrules2015 (Being irregular nature of the deposit) to decipher depth persistence and subsurface continuity of bauxite/aluminous laterite. 4. To estimate the insitu resource of Bauxite/aluminous laterite for G3 stage of exploration and preparation of Geological Report (GR). 5. Carry out mineral exploration works as per Minerals (Evidence of Mineral Contents) Rule-2015, Mineral (Auction) Rules-2015 and MMDR Amendment act-2015. In turn to facilitate the Government of Karnataka in auctioning of the block.
	Whether the work will be carried out by the proposed agency or through outsourcing and details thereof. Components to be outsourced and Name of the outsource agency	Entire work shall be carried out by M/s PRB Infraprojects Pvt. Ltd. (In house)
	Name/Number of Geoscientists	Two Geologist (2G) & Surveyor (1)
	Expected Field days(Geology, Geophysics, Surveyor)	a. Geologist:250Field Days+90 HQ Days b. Surveyor:90 Days
1.	**Location**	
	Latitude	Between 14° 15’ 11.2"&14° 13’ 42"

	Longitude	Between 74° 27’ 40.5"& 74° 28’ 51.7"
	Villages	Kasarkod
	Tehsil/Taluk	Honnavar
	District	Uttar Kannada
	State	Karnataka

2.	**Area (hectares/square kilometers)**	
	Block Area	4.40sq.km
	Forest Area	4.40 sq.km
	Government Land Area	NA
	Private Land Area	NA
3.	**Accessibility**	
	Nearest Rail Head	Bhatkal Railway station
	Road	Panvel-Kochi-Kanyakumari NH-66 connected to Bhatkal
	Airport	Panjim (goa)
4.	**Hydrography**	
	Local Surface Drainage Pattern (Channels)	The drainage pattern is mostly dendritic in nature
	Rivers/Streams	Sharavati river& its tributaries.
5.	**Climate**	
	Mean Annual Rainfall	3800 mm
	Temperatures (December)(Minimum) Temperatures (June) (Maximum)	20^0C 26^0C
6.	**Topography**	
	Topo sheet Number	48 J/07 and 48 J/08
	Morphology of the Area	The area consists of low lying coastal plain varying in elevation from 54.7 m to 96 m above mean sea level, followed by hilly terrain in the east. The hills and mounds are cut by numerous streams. The low level flat topped plateau is devoid of vegetation in general whereas, the hilly terrain towards east is under thick evergreen forest.
7.	**Availability of baseline geosciences data**	
	Geological Map(1:50K)	Attached (refer Plate No.-IV)
	Geochemical Map	Not available
	Geophysical Map (Aerogeophysical, Ground geophysical, Regional as well as local scale GP maps)	Not available
8.	Justification for taking up G3stage mineral exploration	The DMG, Karnataka has carried out detailed investigation of this block during the FS1964-73 and estimated 13.4 lakh tons of Aluminous laterite reserves with 40-54% Al_2O_3. GSI has carried out Reconnaissance Survey for Bauxite in Western Ghat belt in Kabri Honnavar-Apsarkond areas, Uttar Kannada district, Krnataka (Stage G-4), during FS 2016-17 and estimated 9 MT reserves of aluminous laterite. Recently, the Block was put up for Auction but the same could not be successfully auctioned lacking some important information in the report. Subsequently, after joint field inspection by DMG and GSI, it was decided to carve out a bigger block area and take up G3 stage exploration under NMET to put up this block for

auction as ML.

As a follow up DGM Karnataka carved out a bigger block of 5.25 sq km area and allocated the block to PRB Infraprojects Pvt. Ltd to submit the DPR for the block to NMET after visiting the area & analyzing a few samples. Accordingly, Team of Geologist from PRB Infraprojects Pvt. Ltd visited the proposed block area and collected 5 Rock samples. Analytical results of the samples are found to be encouraging which are given as below.

Sample No	Al_2O_3%	Fe_2O_3%	SiO_2 %	TiO_2 %
1) N-2	25.86	40.26	15.62	1.69
2) N-4	49.43	8.75	12.52	1.77
3) N-7	55.09	1.60	12.37	2.02
4) N-9	30.18	42.21	5.63	1.24
5)N-10	56.68	7.54	4.71	2.39

Accordingly, as per the suggestions of 70th TCC the said Block was modified by excluding the areas near railway track and road. The modified block of 4.40sq km area was discussed in 71st TCC meeting and was accorded In-principal approval for submission of DPR, proposing Geological mapping in 1:4000 scale, sampling and 600 m of drilling at 400m Grid.

DETAILEDDESCRIPTIONOFTHEPROJECT

1. Block Summary

Physiography

The area consists of low lying coastal plain and shows an elevation of 54.7 m to 96m above mean sea level, followed by mountainous terrain to the east. The hills and mounds are cut by numerous streams. The low lying flat topped plateau are usually devoid of vegetation, while the mountains towards east are covered with thick evergreen forest.

The south west monsoon, confined to the months from June to October brings abundant rain fall of about 3800 mm and the area enjoys typical tropical climate. Nittadgi plateau is dissected by numerous nullas and the major river Sharavati flows in the north. The plateau shows depression in the center and there is a very small village called Nelavanki with good water facility. Northern half of the plateau is devoid of vegetation, whereas shrubs and other thickly growing bushes are noticed in the southern half of the plateau.

Geological Back ground of the area

Regional Geology

Regionally, the area exposes basement gneisses of Peninsular Gneisses Complex (PGC), meta volcanic-sedimentary sequence of Dharwad Supergroup and younger intrusive granites. All these litho unites have been intruded by basic and acid dykes and sills. The PGC consist of banded biotite gneisses, granodioritegneisses and migmatites. The enclaves of amphibolite and talc chlorite schists occurs as rafts within them. The Dharwad Supergroup of rocks is divisible in to

lower Bababudan and upper Chitradurga Group. The Bababudan group is represented by meta-basalt and acid volcanics,orthoquartzite and quartz-mica schist and BMQ. The Chitrdurga group is represented by quartz-chlorite schists, orthoquartzite, cherty dolomite/limestone and phyllite. The laterite cover is extensive in the area.The schistosity is well developed in quartzite and ferruginous quartzite showing northeast-southwest to east-west direction with subvertical dips. The lithounits of the area have been folded into a series of antiform and synform.

Geology of the Block

The following are the rock types exposed in the block area:
Soil
Laterite
Meta Basalt
Schists

The area is covered by thick spreads of laterite and alluvium at places. The valleys consist of loamy soil of pale yellow colour. The low lying areas are sandy and permits raising of cocoanut plantation. Laterite covers the top of plateau. The thickness of the laterite cover varies from a few meters to 30 m.

Schistose rocks trend generally NNE-SSW and dips 30^0 to 40° east. They are intruded bynumerous quartz veins. They are overlaid, by banded ferruginous quartzites and are well seen at Apsarkonda (West of the Block). Lateritic iron ore bands occur in the ferruginous quartzites with Fe content varying from 56 to 6*8*%.

Laterites of this plateau are characterized by vertical as well as inclined tubular cavities ofupto1.2cm dia. usually filled with clay substances of varying colours. The walls of the tube are ferruginous, hard and compact. It is observed that beyond 9.1 m depth, it grades on to entirely clayey formation resting on granitic gneisses. Laterites cover the top of the flat plateau the thickness of the laterite varies from few meters to 30.0 m.

The aluminous laterite occurs as:
(1 Blocks/boulders along the escarpments
(2) lenticular and disconnected patches in the central portion of the plateau.
Thus, indicating irregular nature of the aluminous lateritic deposit.

The detailed investigation of this block was carried out by DMG, Karnataka during the FS1964-73.During the investigation 374 nos of 1.2 m deep holes were drilled at 100 mtr grid pattern. Besides 18 trial pits of 1.5 m x 1.5 m x (2.4-6 m) dimensions were excavated at 300mtr grid. Later, during 1967-69 305meters of drilling was carried out in the areas showing aluminous laterite patches. Based on this study 13.4 lakh tons of aluminous laterite having 40-54% Al_2O_3 reserve has been estimated.

Based on the exploration by DMG the block was put up for auction for further exploration but due lack of some important information it could not auctioned. Thereafter a joint field inspection was conducted by DMG and GSI officials & it was decided to carve out a bigger block area and take up G3 stage exploration under NMET to put up this block for auction as ML.

Scope for proposed exploration

Sr. No.	Nature of Work	Proposed Work
Stage-I		
1	Detailed Mapping in1:4000 scale with 2 m contour interval	4.40 sq.km
2	Bed Rock Samples	125
3	Determination of in-situ Bulk density	5 no
4	Sample Analysis (Bed rock/ pit samples)	125+10
Stage-II		
5	Core Drilling	600 m
6	Borehole Depth	20 m
7	Drill Core samples	150 Nos.
8	Category of Land	Forest
9	Geological Personnel	02 Nos.
10	Period of Scheme	12 months

Recommendations of Detailed Mineral Exploration Report by DMG Karnatka:

The detailed investigation of this block was carried out by DMG, Karnataka during the FS1964-73 and 13.4 lakh tons of Aluminous laterite having 40-54% Al_2O_3 reserves has been estimated.
GSI has carried Reconnaissance Survey for Bauxite in Western Ghat belt in Kabri Honnavar- Apsarkond areas, Uttar Kannada district, Karnataka During FS 2016-17 and has estimated 9 Mt reserves of Aluminous Laterite.

Recently, the Block was put up for Auction but the same could not be auctioned lacking some crucial information in the report.

Subsequently, after joint field inspection by DMG and GSI, it was decided to carve out a bigger block area and take up G3 stage exploration under NMET to put up this block again for auction as ML.

As a follow up DGM Karnataka carved out a bigger block and allocated the block to PRB Infraprojects Pvt. Ltd to submit the DPR for the block to NMET after visiting the area & analyzing a few samples. Accordingly, Team of Geologist from PRB Infraprojects Pvt.Ltd visited the proposed block area and collected 5 Rock samples. Analytical results of the samples were found to be encouraging as mentioned above.

Objectives:

- To delineate the surface outcrop of Aluminous Laterite/Bauxite by geological mapping in 1:4000 scale with 2m interval Contouring and collection of bed rock samples and analysis.
- To drill 30Nos. of boreholes on definite grid pattern of 400mX400m as per MEMC rules 2015 (Being irregular/patchy occurrence of the deposit) to decipher its depth persistence and subsurface continuity and to establish the different zones of aluminous laterite/bauxite.
- To estimate the insitu resources of different grade of aluminous laterite/Bauxite and preparation of Geological Report (GR).
- Carry out mineral exploration works as per Minerals (Evidence of Mineral Contents) Rule-2015, Mineral (Auction) Rules-2015 and MMDR Amendment act-2015. In turn to facilitate the Government of Karnataka in auctioning of the block.

2. Previous Work

GSI has carried out systematic Geological mapping in parts of Kanara District during FS 1968-69. GSI has carried Reconnaissance Survey for Bauxite in Western Ghat belt in Kabri Honnavar- Apsarkond areas, Uttar Kannada district, Karnataka during FS 2016-17 and has estimated 9 Mt reserves of Aluminous Laterite.

Reconnaissance survey was conducted by DMG in the year 1962-63 on Nittadgi Plateau $14^0$13'13" – $14^0$15'8" North latitude and $74^0$27'43" – $74^0$28'52" East longitude, Honnavar taluk, North Kanara district and provided scope for the location of Alumina rich pockets. Hence detailed investigation was conducted by opening grid holes, trial pits and boreholes. A quantity of 100 tonnes of Bauxite was mined to assess its quality and conduct pilot plant experiments.

The detailed investigation for aluminous laterite of Nittadgi plateau lying south east of Honnavar was taken up during the field season 1964-73. A quantity of 13.4 lakh tonnes of aluminous laterite analysing between 40 to 55% Al2O3, 6 to 16% silica, 10 to 20% Fe2O3, and 1.5% to 2% TiO2 has been estimated. The aluminous laterite occurs in the form of disconnected patches and is spread over an area of about 54.5 hectors.

3. Block description

Sr. No.	Block Corner Point	Latitude	Longitude
1.	A	14° 14' 56.9"	74° 27' 40.5"
2.	B	14° 14' 56.9"	74° 27' 51.7"
3.	C	14° 15' 11.1"	74° 27' 51.7"
4.	D	14° 15' 11.2"	74° 28' 26.8"
5	E	14° 14' 59.0"	74° 28' 26.8"
6	F	14° 15' 00.0"	74° 28' 51.5"
7	G	14° 13' 42.0"	74° 28' 51.7"
8	H	14° 13' 41.9"	74° 27' 58.3"
9	I	14° 13' 52.9"	74° 27' 58.3"
10	J	14° 13' 52.8"	74° 27' 40.7"
11	K	14° 14' 22.03"	74° 27' 52.26"
12	L	14° 14' 22.14"	74° 27' 45.23"
13	M	14° 14' 53.45"	74° 27' 45.15"
14	N	14° 14' 53.47"	74° 27' 52.79"

4. Proposed/ Planned Methodology

Detailed Geological Mapping

Geological mapping on 1:4000 scale with 2m contour interval, will be carried out in an area of 4.40 sq. kms. by taking traverses with the help of GPS and ETS. The geological map will be prepared by adding geological features & structural details etc. picked up during field mapping.

Drilling

To interpret the lithological contacts from the borehole data between various lithologies encountered. A total 30 vertical boreholes shall be drilled. Out of 108 boreholes 106 boreholes shall drilled with an average depth of 10 m and 2 borehole shall be drilled30m deep. A total cumulative drilling meterage shall be about 600 minitially in the proposed block.

Core Logging and Sampling

The core recovered from the exploratory drilling shall be kept in the core boxes as per the standard procedure. In the log book core recovery, core recovery percentage, unit length, extrapolated length run-wise shall be recorded. Borehole cores shall be loggedrun-wise as per

litho units, structural features and rock types.

Samples for every borehole shall be collected and prepared further for chemical analysis. An estimated 150(Check Sample) nos. ofcore samples and additionally 125bedrock samples and 10 pit samples shall be collected for chemical analysis.

Chemical Analysis

The collected samples shall be analyzed by XRF for 5 radicals like Al_2O_3, SiO_2, TiO_2, F_2O_3,& + Reactive Silica etc. 10% of the primary samples shall be analyzed as check samples.

ICP-OES/ICP-MS (sequential technique) Sample package for 34 elements i.e. 16 other elements Viz.Li, Ga, In, Be, Ge, Mo, Cr, Ta, W, Ba, Co, Rb, Sr, Zr, Nb, Ni : 18 REE viz. La, Ce,Pr,Nd,Sm,Eu,Gd,Tb,Dy,Ho,Er,Tm,Yb,Lu,Sc,Y:02 Actinides viz.U,Th of 216 samples (Per BH 2 Sample).
XRD studies of 5 samples for identification of minerals (Random).

Geotechnical study:2 Nos. of Bauxite/Aluminous laterite samples will be collected for in-situ Bulk density study.

Geological Report

Prepare a detailed report (Final G3 stage report) along with geological map identifying and establishing the deposit with quality and quantity of the resources with worthy of being raised to a G2 scheme of exploration as per MEMC-2015. Data generated from G-3 level of work and earlier data if any shall be presented in the report as perthe guidelines laid down in provisions of Mineral (Evidence of Content) Rules 2015 in the NMET prescribed format for pre review.

5. Nature and Quantum of the work

G4stageGRshouldbesubmittedforG3stageproposalandG3stageGRforG2proposal succinct details of the previous stage exploration

Sr.No.	Item of Work	Unit	Proposed Quantum
1.	Topographic Survey &Geological Mapping (1:4000)	Sq. Kms	4.40
2.	Core Drilling	M	600
3.	Sample preparation and Laboratory Studies		285
	Chemical Analysis		
A.	Primary Samplesfor5 radicals i.e. Al_2O_3, SiO_2, TiO_2, F_2O_3, LOI.	Nos.	240
B.	Internal Check Samples (10% of primary samples)for analysis of 5 radicals i.e. Al_2O_3, SiO_2, TiO_2, F_2O_3,& + Reactive Silica	Nos.	24
C.	Combined determination of Tri hydrate Alumina (THA- 40°c) and	Nos For BH-30	60

	Mono hydrate Alumina (MHA-240°c) & Reactive Silica in Bauxite*(per BH 2 Sample)*		
D	XRD studies for identification of minerals (Random)	Nos	5
E	ICP-OES/ICP-MS (sequential technique) sample package for 34 elements i.e.16 other elements viz. Li,Ga,In,Be,Ge,Mo,Cr, Ta,W,Ba,Co,Rb,Sr,Zr, Nb,Ni,: 18 REE viz. La Ce,Pr,Nd,Sm,Eu,Gd,T b,Dy,Ho,Er,Tm,Yb,Lu ,Sc,Y:02 Actinides viz.U,Th (Per BH 2 Sample)	Nos.	60
4	**Petrographic /mineragraphic study**		
A	Preparation of thin section	Nos.	5
B	Study of thin section	Nos.	5
C	Digital Photographs	Nos.	10
5	**Geotechnical Study**		
A	Bulk density Determination	Nos.	5
8.	Geological Report Preparation	Nos.	1

Borehole spacing (AsperMEMC, 2015)

Type of deposit	**Irregular (discontinuous and patchy)**
G3- Stage	400mX400m

6. Exploratory Drilling (Refer another document on exploratory drilling)

Total area of the proposed block is4.40Sq. kms.Thisarea is proposed for exploration by drilling 30nos. of Bore holes drilling at 400m X 400m grid interval with cumulative meterage of 400m with vertical depth ranging from 10 to 15m across the length and breadth of the Aluminous laterite body as per MEMC 2015 guidelines for G3 stage of exploration. The borehole locations are given in the Plate – IV.

9. Reference:

1) Geological Study report No—90 by G.L. Nagaraja Chetty, B.L. Rajashekhariah and N.S. Narahari Rao of DGM Karnataka in year 1974 for Aluminos Laterite deposits of Nittadgi Plateau near Apsarkond,Honnavar Taluk, North Kanara District.
2) GSI Progress report for Systematic mapping in parts of Sirsi, Siddapur and Bhatkal Taluks North Kanara district Mysore State-

Karnataka by Gopal Rao. FS 1968-69
3) Geological mapping in parts of Kanara Distric, Report on Reconnaissance Survey for Bauxite in Western Ghat belt in Kabri-Honnavar- Apsarkond areas, Uttar Kannada district, Karnataka (Stage G-4) FS 2016-17.

7.0 TIME SCHEDULE

Item of Work	1	2	3	4	5	6	7	8	9	10	11	12
1 Pre field preparation												
2.Detailed Mapping (1:4,000), Bed rock Sampling and Chemical analysis												
3. Drilling & Chemical analysis												
4. Review												
5.Interpretation of analytical data, finalization of lithologs, plates												
6. Review & report preparation / Peer review												
7. Final submission												

Note : Date of commencement of the work schedule will be taken up on necessary clearance and approval from concerned government agencies.

Manpower Deployment Geologist party:

- 2Geologist-180Field days+ 90HQdays

Survey party:

- **1**Surveyor-120days

Drilling Party

2 Driller,2 Assistant Driller,2 Rigman,12 labors for Apprx.180 days

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7.0 TIME SCHEDULE

Item of Work	1	2	3	4	5	6	7	8	9	10	11	12
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(Notified Private Exploration Agency)

WORKPLAN–G3 STAGE EXPLORATION FOR BAUXITE

IN NITADGI BAUXITE BLOCK

Nitadgi Bauxite Block- G3 Level, Area 4.40 Sq km, 400x400 Grid, 30 BH, 600m drilling Average depth-20m						
Item	**Item of Work**	**Item**	**SOR Sr No &**		**Estimated Cost**	
Sr No.	**Item**	**Unit**	**Sr. No.**	**Rates**	**Qty.**	**Amount (Rs)**
A	**Survey work**					
1	DGPS Survey for BH fixation & RL determination(30 Borehole + 14 Boundary Points)	Per Point	1.6.2	19,200	44	844800
2	Charges of Surveyor 2mtr contour (1 party) for Geological mapping survey & Block boundary demarcation	one surveyor per day	1.6.1a	8,300	120	996000
3	4 Labours for survey work;	day	5.7	504	480	241920
					Sub Total- A	**2082720**
B	**GEOLOGICAL WORK** (Mapping1:4000 scale)					
i	Charges for one Geologist- Field	day	1.2	11,000	180	1,980,000
ii	Charges for one Geologist per- HQ	day	1.2	9,000	90	810,000
iii	2 labours/ party	day	5.7	504	360	181,440
iv	Sampling -1 Samplers	day	1.5.2	5,100	80	408,000
v	Sampling 4 labours/ party	day	5.7	504	320	161,280
					Sub Total- B	**3,540,720**
C	**PITTING AND TRENCHING**					
i	Pitting for detarmination of bulk density (1mx1mx1m) 3Nos.	Cu m	2.1.1	3800	3	11,400
					Sub Total- C	**11,400**
D	**LABORATORY STUDIES**					
1	**Chemical Analysis**					
i	A. Primary Samples analysis for 5 radicals i.e. Al2O3, SiO2, Fe2O3,TiO2 and LOI (Surface Samples-90, BH Samples-150)	Nos	4.1.15a	4,200	240	1,008,000
ii	10% Check samples for for 5 radicals i.e. Al2O3, SiO2, Fe2O3,TiO2 and LOI	Nos	4.1.15a	4,200	24	100,800
iii	**Analysis for Bauxite**					0
	A. Combined determination of Tri hydrate Alumina (THA- 40°c) and Mono hydrate Alumina (MHA-240°c) & Reactive Silica (per Bh 2 Sampel)		4.1.17a	6700	60	402,000
2	**Physical,Petrological, Mineralogical Studies**					0
i	**XRD studies for identification of minerals (Random)**		4.5.1	4000	10	40,000
ii	**ICP-OES/ICP-MS (sequential technique) sample package for 34 elements i.e.16 other elements viz. Li,Ga,In,Be,Ge,Mo,Cr,Ta,W,Ba,Co,Rb,Sr,Zr,Nb,Ni,: 18 REE viz. La Ce,Pr,Nd,Sm,Eu,Gd,Tb,Dy,Ho,Er,Tm,Yb,Lu,Sc,Y:02 Actinides viz.U,Th (Per BH 2 Sample)**		4.1.41	7731	60	463,860
iii	Preparation of thin section	Nos	4.3.1	2,353	10	23,530

iv	Study of thin section	Nos	4.3.4	4,232	10	42,320
v	Digital Photographs	Nos	4.3.7	280	20	5,600
E	**Geotechnical Laboratory**					
i	In-situ Bulk Density		4.1.0	3540	3	10,620
					Sub Total- D	**2,096,730**
F	**DRILLING**					0
i	Core Drilling (30BH) 600Mtr.Grid 400x400m 20mtr Avg.Depth.+(2BH up to 30Mt)	m	2.2.1.1b	7,168	600	4,300,800
ii	Land / Crop Compansation (As Per Requirment)	per BH	5.6	20,000	0	0
iii	Construction of concrete Pillar (30 Borehole + 14 Boundary Points)	per BH	2.2.7a	2,000	44	88,000
iv	Transportation of Drill Rig & associated (1Rig 2200km.Up & Dn)	Km	2.2.8	36	4,444	159,984
v	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	6	300,000
vi	Drilling Camp Setting Cost	Nos	2.2.9a	250,000	1	250,000
vii	Drilling Camp Winding up Cost	Nos	2.2.9b	250,000	1	250,000
viii	Approach Road Making (Hilly Terrain)	Km	2.2.10a	32,200	5	161,000
ix	Core Preservation (Aprox 70% of Drill core 420 & 2BH Complet 60Mtr.)	m	5.3	1,590	450	715,500
					Sub Total- E	**6,225,284**
					Total A to F	**13,956,854**
G	**Geological Report Preparation (A minimum of Rs. 7.5 lakhs or 3% of the value of work whichever is more)**	1No.	**5.2**			**418,706**
H	**Peer review Charges**	1No.		30000		**30,000**
I	**Preparation of Exploration Proposal (2% of the Cost or Rs. 5 Lakhs whichever is lower)**	**1No.**	**5.1**			**500,000**
J	**Total Estimated Cost without GST**					**14,905,560**
K	**Provision for GST (18% of I)**					**2683000.732**
L	**Total Estimated Cost with GST**					**17,588,560**

Plate No-I


Sharavati River
Padukuli
Molkod
Hosapattana
Balubele
Malkod
Kelaginuru
Devastan Keri
Apsarakonda Waterfalls
Kolki
Google Earth

NITTADAGI BLOCK AREA, DEMARCATED ON 50K TOPOSHEET MAP

(Old Toposheet No.48J/7 & 48J/8)
New Toposheet No.D43I7 & D43I8)

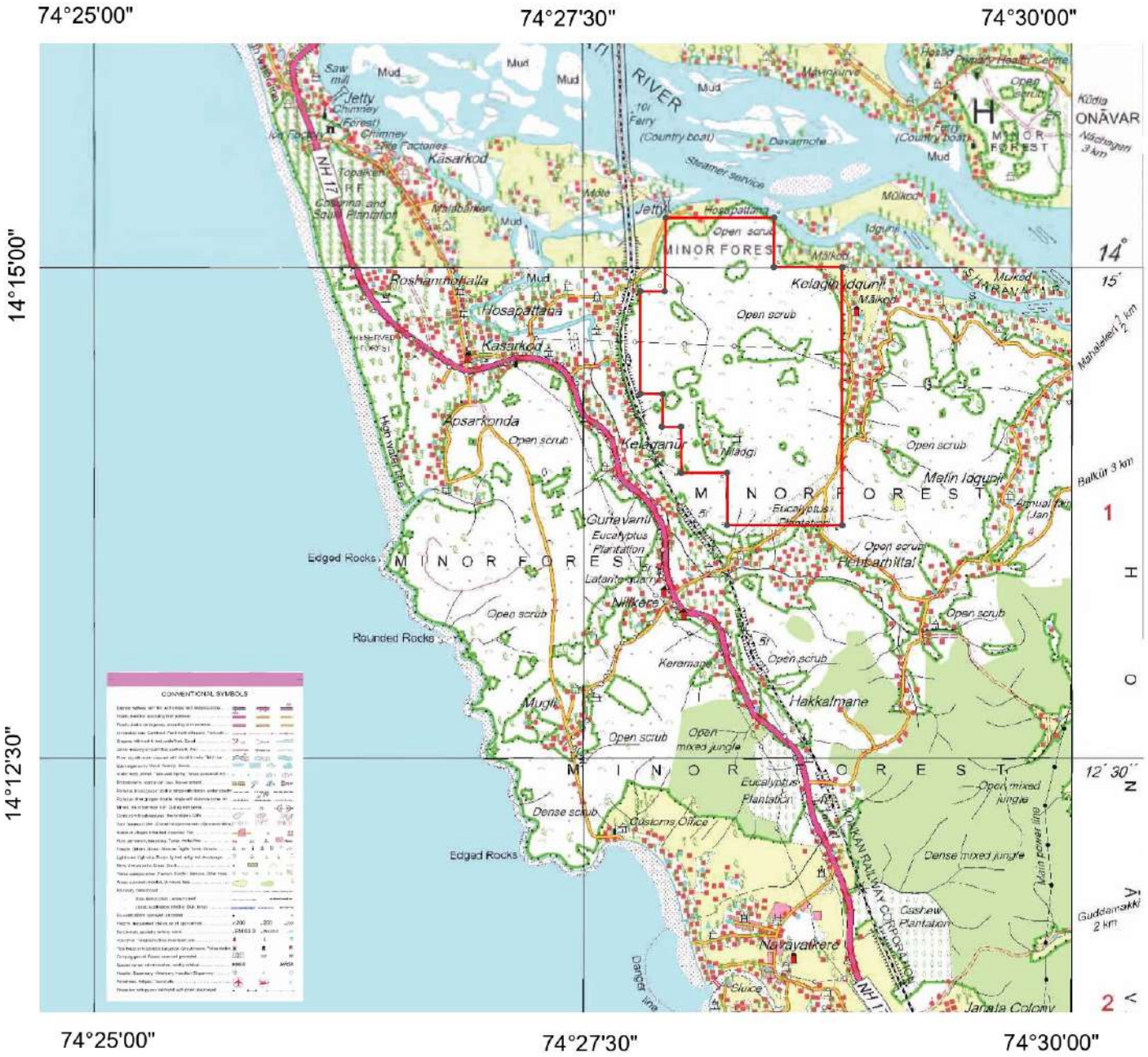
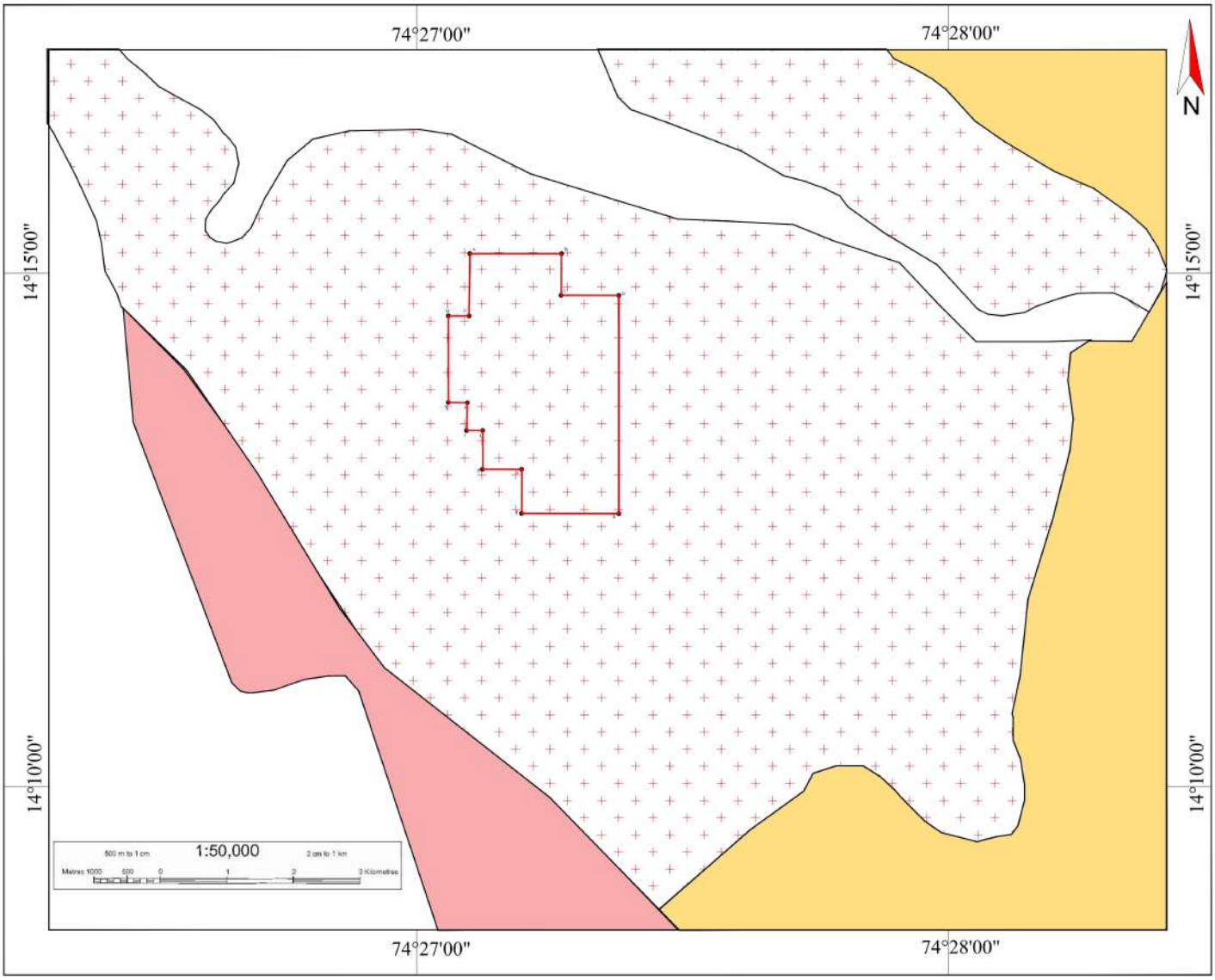


Plate No-II

NITTADAGI BLOCK AREA, DEMARCATED ON 50 K GEOLOGICAL MAP

Plate No-III



INDEX

	BLOCK BOUNDARY
	LATERITE
	METABESALT
	GRANITIC GNEISS AND MEGMATITE, OLDER GRANITE
	PROPOSED BOREHOLE

ID	Longitude	Latitude
A	74°27'53.00"E	14°15'60.01"N
B	74°28'27.08"E	14°15'16.00"N
C	74°28'27.00"E	14°15'0.00"N
D	74°28'48.46"E	14°15'1.00"N
E	74°28'48.64"E	14°13'41.99"N
F	74°28'12.50"E	14°13'42.00"N
G	74°28'12.50"E	14°13'58.00"N
H	74°27'58.00"E	14°13'58.00"N
I	74°27'58.00"E	14°14'12.00"N
J	74°27'52.00"E	14°14'12.00"N
K	74°27'52.26"E	14°14'22.03"N
L	74°27'45.23"E	14°14'22.14"N
M	74°27'45.15"E	14°14'53.45"N
N	74°27'52.79"E	14°14'53.47"N

AREA OF THE BLOCK 4.40 SQ.KM

Plate No-IV

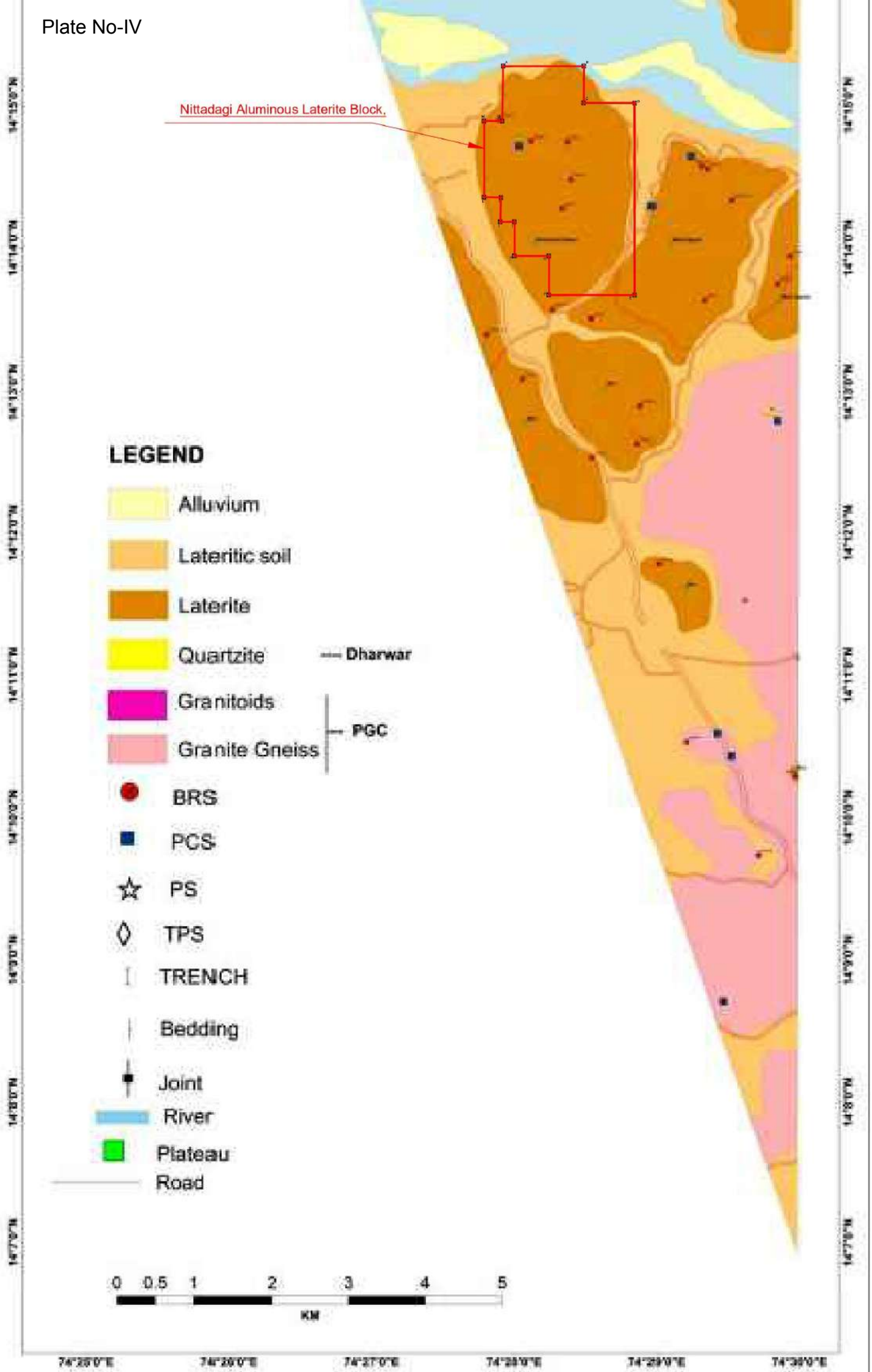
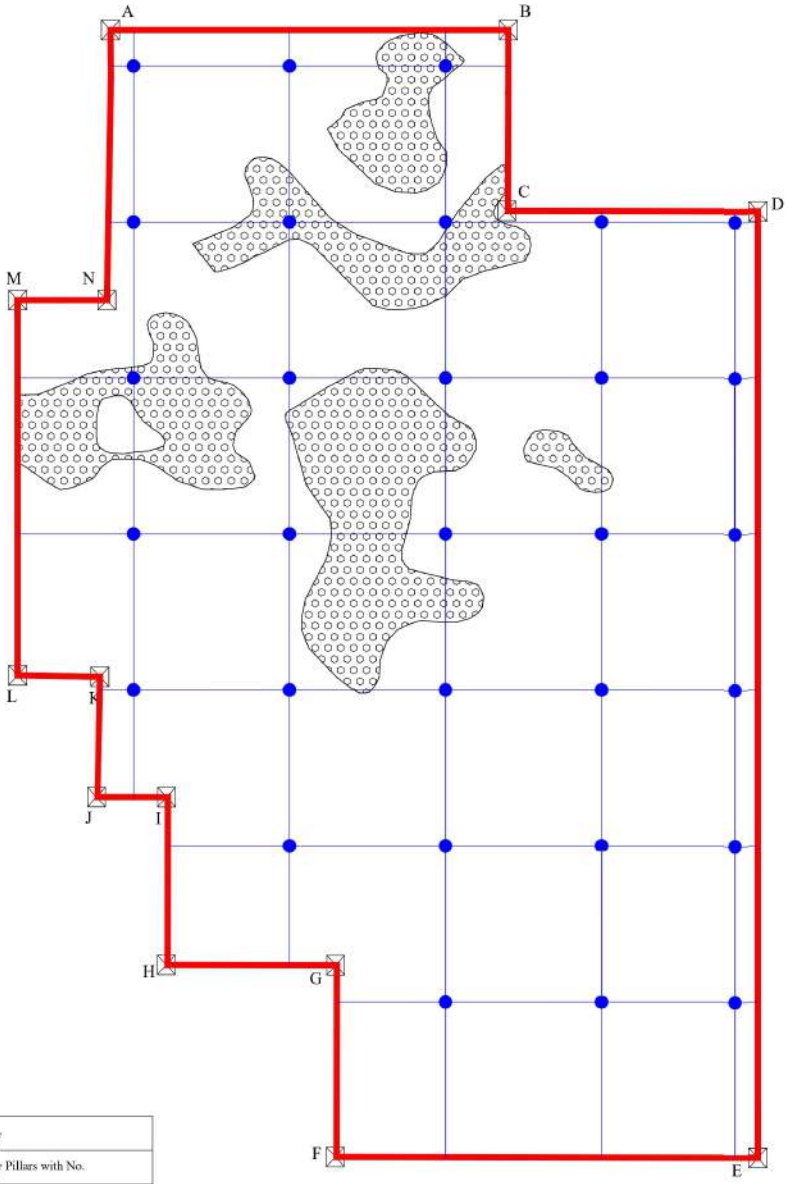

Nittadagi Aluminous Laterite Block,
LEGEND
Alluvium
Lateritic soil
Laterite
Quartzite
Dharwar
Granitoids
Granite Gneiss
PGC
BRS
PCS
PS
TPS
TRENCH
Bedding
Joint
River
Plateau
Road
0 0.5 1 2 3 4 5
KM

Plate No-V

ALUMINOUS LATERITE OF NITADGI PLATEAU N.K. DISTRICT.



ID	Longitude	Latitude
A	74°27'53.06"E	14°15'00.01"N
B	74°28'27.08"E	14°15'16.09"N
C	74°28'27.00"E	14°15'0.00"N
D	74°28'48.46"E	14°15'1.00"N
E	74°28'48.64"E	14°13'41.00"N
F	74°28'12.50"E	14°13'42.00"N
G	74°28'12.50"E	14°13'58.00"N
H	74°27'58.00"E	14°13'58.00"N
I	74°27'58.00"E	14°14'12.00"N
J	74°27'52.06"E	14°14'12.00"N
K	74°27'52.26"E	14°14'22.03"N
L	74°27'45.23"E	14°14'22.34"N
M	74°27'45.15"E	14°14'53.45"N
N	74°27'52.70"E	14°14'53.47"N

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	Block Boundary
A ☒	Block Boundary Pillars with No.
	GRID **(400 x 400 m)**
	Proposed Points
	ALUMINOUS LATERITE

AREA OF THE BLOCK- 4.40 Sq.Km