#### GOVERNMENT OF ANDHRA PRADESH DEPARTMENT OF MINES AND GEOLOGY

From

Sri E.Narasimha Reddy, M.Sc., Deputy Director of Mines and Geology, 2<sup>nd</sup> Floor, Viswa House, Pallamraju Nagar, Kakinada- 533 003. To

M/s Bhaskara Minerals, Mg.Pt:Sri Dwarampudi Veerabadhra Reddy, D.No.11-15-3,Atcyutaramayya street, Near Bala Tripura Sundari Temple, Ramaraopeta, Kakinada-533004.

#### Letter No.1208/Q/2022, Dated:02.08.2022.

Sub:- Mines & Quarries - Mining Plan for Laterite over an extent of Hects 9.75 in Compartment.No 606 of Sarlanka Reserve forest, Pedamallapuram Beat, Rowthulapudi Section, Yeleswaram Range, Kakinada Division, East Godavari district in favour of M/s Bhaskara Minerals, Mg.Pt: Sri Dwarampudi Veerabadhra Reddy for a period of 05 years - Approval of Mining Plan including Progressive mine closure Plan - Reg.

Ref:-

- QL Application Dt: 15.07.2010 filed by M/s Bhaskara Minerals, Mg.Pt: Sri Dwarampudi Veerabadhra Reddy.
- 2. ADMG, Rajamahendravaram Proposals for grant of Quarry Lease vide file No. 4769/QL/2016, Dt.08.11.2016 to the DM&G, Ibrahimpatnam.
- 3. Notice.No.3456/D4/2017, Dated:04.04.2022 of the DM&G, Ibrahimpatnam addressed to the applicant.
- 4. Letter dt.08.07.2022 along with draft Mining Plan prepared by the RQP Sri R.Golla Veeraswamy.
- This office Letter No.1208/Q/2022, Dated: 14.07.2022 addressed to the RQP Sri R. Golla Veeraswamy.
- Letterdt.28.07.2022 from the RQP along with eight sets of fair Mining Plans.
- 7. Proce.No.28594/P.RQP/01, Dt.13.05.2016 of the Director of Mines and Geology, Hyderabad.

\*\*\*\*

M/s Bhaskara Minerals, Mg.Pt: Sri Dwarampudi Veerabadhra Reddy has filed an application for grant of Quarry Lease for Laterite over an extent of Hect 10.69 in Compartment.No 606 of Sarlanka Reserve forest, Pedamallapuram Beat, Rowthulapudi Section, Yeleswaram Range, Kakinada Division, East Godavari district for a period of 20 years vide reference 1<sup>st</sup> cited. The Assistant Director of Mines and Geology, Rajamahendravaram vide reference 2<sup>nd</sup> cited submitted proposals to the Director of Mines & Geology, Ibrahimpatnam on the application duly recommending for grant of quarry lease in favour of M/s Bhaskara Minerals, Mg.Pt: Sri Dwarampudi Veerabadhra Reddy over an extent of 9.75 Hects.

After examining the proposals submitted by the Asst.Director of Mines and Geology, Rajamahendravaram, the Director of Mines & Geology, Ibrahimpatnam has agreed in principle to consider grant of quarry lease in favour applicant and vide reference 3<sup>rd</sup> cited, issued notice to M/s Bhaskara Minerals, Mg.Pt: Sri Dwarampudi Veerabadhra Reddy for submission of Draft Mining Plan as required under Rule 7A (i) of APMMC Rules, 1966. In the reference 4<sup>th</sup> cited M/s Bhaskara Minerals, Mg.Pt: Sri Dwarampudi Veerabadhra Reddy submitted draft Mining Plan to this office prepared by the RQP.

After verification of the draft Mining Plan this office vide reference 5<sup>th</sup> cited, requested the RQP to rectify the lapses/omissions in draft Mining plan as pointed and submit 08 sets of fair Mining Plans. Accordingly, the RQP vide reference 6<sup>th</sup> cited has submitted the 08 sets of fair Mining Plans duly rectified the lapses/omissions as pointed in Draft Mining Plan.

In exercise of the powers conferred by the Director of Mines and Geology, Andhra Pradesh, Hyderabad through the reference 7<sup>th</sup> cited, I hereby approve the Mining Plan **including Progressive mine closure Plan** for Laterite over an extent of Hect 9.75 in Compartment.No 606 of Sarlanka Reserve forest, Pedamallapuram Beat, Rowthulapudi Section, Yeleswaram Range, Kakinada Division, East Godavari district for a period of 05 years in favour of M/s Bhaskara Minerals, Mg.Pt: Sri Dwarampudi Veerabadhra Reddy subject to the following conditions:

- This Mining Plan is approved without prejudice to any other laws applicable to the quarry area from time to time whether made by the Central Government, State Government or any other authority or any order / direction from any court of competent jurisdiction.
- 2. The approval of the aforesaid Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Regulation and Development) Act 1957 or the A.P. Minor Mineral Concession Rules1966, or the other Rules framed there under and any other laws including the Forest Conservation Act, 1980, Forest conservation Rules, 2003 and also other relevant status, orders, guidelines as the case may be applicable from time to time.
- The Mining Plan is approved subject to strictly adhering to the APMMC Rules, 1966
  Relevant Regulations and Rules of Metalliferrous Mines Regulations, 1961, provisions of
  the Mines Act, 1952 and other Rules and Regulations made there under.
- 4. Prior permission from the Director General, Mines Safety shall be obtained whenever and where ever it is required.
- Clearance / Consent / No objection from Ministry of Environment and Forest, Central pollution control Board, State pollution Control Board as applicable in this case should be obtained and a copy of the same should be submitted to this office.
- The execution of approved Plan of Mining Plan shall be subject to vacation of prohibitory order / notices if any issued by competent authority.
- 7. The Mining Plan approval is for proposals contained therein and as applicable for the mining activities to be carried out for a period of 05 years for the quarry lease to be granted and the mining plan will come in to force from date of execution of lease deed.
- The Mining Plan is approved as per the quarry operations with reference to the boundary pillars erected by the lease holder and if any deviations in quarry operations are found at a later dates and are not in accordance with lease deed sketch, the lessee is responsible for such acts.
- 9. If anything found to be concealed as required by the Acts and Rules pertaining to quarrying in the contents of approved mining Plan and the proposal for rectification has not been made or if at later stage the information furnished in the document is found to be incorrect or misrepresentation of facts, the approval shall be revoked with immediate effect.

Encl: A.M.P.

Yours faithfully,

Deputy Director of Mines and Geology, Kakinada.

Copy submitted to the Director of Mines and Geology, Ibrahimpatnam for favour of information. Copy submitted to the Member Secretary, State Environmental Impact Assessment Authority, Visakhapatnam along with approved Mining Plan for information.

Copy to Sri R.Golla Veera swamy, Consultant Geologist & RQP, REGN.No.RQP/DMG/AP/01/2021, Bommasani Sadhan, 2<sup>nd</sup> Floor, Near one centre, Gollapudi, Vijayawada-521225 for information. Copy submitted to the Director of Mines Safety, Hyderabad for favour of kind information. Copy to the Asst. Director of Mines and Geology, Rajamahendravaram along with A.M.P. with a direction to obtain Bank Guarantee as Financial Assurance as per APMMC Rules 1966, obtain environmental clearance as per the procedure mentioned in the Notification S.O.N141(E), applicant.

APPROVED

MINING PLAN
INCLUDING PROGRESSIVE MINE CLOSURE
FOR

LATERITE APPLIED AREA
(Under Rule 7 A of APMMC Rules '1966)
(FOR THE PLAN PERIOD OF FIVE YEARS)

Over an extent of 9.750 Hectares in Comp. no: 606 of Saralanka R.F, Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Division, East Godavari District, Andhra Pradesh State.

#### LESSEE

M/s Bhaskara Minerals,
Mg.P: Sri Dwarampudi Veerabhadra Reddy,
D.No. 11-15-3, Achyutaramayya Street,
Near Bala Tripura Sundari Temple,
Ramaraopet, Kakinada-533004,
East Godavari District,
Andhra Pradesh State
Ph No: 9849801111

E Mail Id:bhaskaraminerals@outlook.com

PREPARED BY
SRI GOLLA VEERASWAMY
CONSULTANT GEOLOGIST & RQP
REGN. NO. RQP/DMG / AP/01/2021,
BOMMASANI SADHAN,
2ND FLOOR,
NEAR ONE CENTRE, GOLLAPUDI,
VIJAYAWADA- 521225,
PH NO-8639153355
Mail Id: veeragollageo@gmail.com



I, Sri Dwarampudi Veerabhadra Reddy Managing Partner of M/s Bhaskara Minerals, filed an application for Quarry Lease of Laterite over an Extent of 9.750 Ha of forest Land Compartment No: 606, of Saralanka RF, Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Division, East Godavari District, Andhra Pradesh State. The Mining Plan for the above said lease area was prepared by Sri Golla Veeraswamy in consultation with me and I understand its contents and agreed to implement the same in accordance to Mines & Minerals Regulation and Development act 1957, Metalliferrous Regulations 1961, Mines safety 1952, APMMC Rules 1966, & MCDR 2017.

Where Specific Permissions are required under above mention rules I will obtain necessary permission clearance from the concerned authorities.

Date:

Place:

APPLICANT

M/s Bhaskara Minerals

VCus

o Wines & Geology Kar

Mg.P: Sri Dwarampudi Veerabhadra Reddy.

#### **CERTIFICATE**

This is to certify That Mining Plan prepared by Sri Golla Veeraswamy, Consultant Geologist & RQP from Regn. No. (RQP / DMG / AP/ 01 / 2021) Bommasani Sadhan,2nd Floor, Near One Centre, Gollapudi, Vijayawada, with respect of Quarry Lease Held by me under name and style M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy over an extent of 9.750 Hectares of Forest Land in Compartment No. 606 of Saralanka RF, Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Division, East Godavari District, Andhra Pradesh State. I agree to follow the content of the mining plan while conducting Quarrying Operations in accordance to the provisions of Mines & Minerals Regulations and Development act 1957, Metalliferrous Regulations 1961, Mines safety 1952, APMMC Rules 1966 & MCDR 2017.

Date :

Place:

APPLICANT

M/s Bhaskara Minerals,

of Mines & Geolog

Mg.P: Sri Dwarampudi Veerabhadra Reddy.

#### **CERTIFICATE**

The provisions of Mines & Minerals Regulations and Development act 1957, Metalliferrous Regulations 1961, Mines safety 1952, APMMC Rules 1966, MCDR 2017. (Under Rules 7(A) (i) of APMMC Rules and as per the G.O.Ms.No.56, Industries and commerce (Mines -II) 30<sup>th</sup> april, 2016), observed in preparation of Mining Plan or Quarry Lease area o Laterite, over Extent of 9.750 Ha of forest Land Compartment No:606, of Saralanka RF, Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Division, East Godavari District, Andhra Pradesh State.

Where Specific Permissions are required under above mention rules I will obtain necessary permission clearance from the concerned authorities.

Also Certified that the information provided in the mining plan is correct to the best of my Knowledge.

Date:

Place

4 Neeren frommy

SRI GOLLA VEERASWAMY (RQP/ DMG/AP/ 01/2021)

e of Mines & Geology

_		-	-	
T	N	т	и.	v
	12		а г.	^

	INDEX	i.a.iiiiiadd
S.NO.	CONTENTS	PAGE NO'S
	INTRODUCTION	01
1.0	GENERAL GENERAL	03
	PART - A	0.6
1.0	GENERAL DETAILS OF THE APPLIED AREA / MINING LEASE	06
2.0	GEOLOGY AND EXPLORATION	06
3.0	CONCEPTUAL MINING PLAN	14
4.0	MINING	14
5.0	MINE DRAINAGE	17
6.0	STOCKING OF MINERAL REJECT / SUB GRADE MATERIAL AND DISPOSAL OF WASTE	18
7.0	USE OF MINERAL AND MINERAL REJECT	18
8.0	PROCESSING OF ROM AND MINERAL REJECT	18
9.0	OTHERS	18
).0	PART - B	
1.0	ENVIRONMENT BASE LINE INFORMATION	20
2.0	ENVIRONMENTAL IMPACT ASSESSMENT	21
2.0	PART-C	
1.0	RECLAMATION PLAN	23
2.0	MINED OUT LAND	23
3.0	TOP SOIL MANAGEMENT	24
4.0	TAILING DAM MANAGEMENT	24
5.0	DISASTER MANAGEMENT AND RISK ASSESSMENT	24
6.0	CARE AND MAINTENANCE DURING TEMPORARY DISCONTINUANCE	25
7.0	FINANCIAL ASSURANCE	25
8.0	FINANCIAL ASSURANCE PROFORMA	26
9.0	CERTIFICATE	27
10.0	PLANS & SECTIONS	27
10.0	1 Millo & ond from	

LIST OF PLATES State of Mines & Geology

TITLE	0		1 //	SCALE
LOCATION CUM KEY PLAN	1 st			1:50,000
LEASE AREA PLAN	Sylven	The Board		1:4,000
SURFACE CUM GEOLOGICAL PLAN		ment of ho	dh:3 84.	1:2,000
GEOLOGICAL CROSS SECTIONS	Sec. 1	1771		1:2,000
WORKING PLAN				1:2,000
WORKING CROSS SECTIONS				1:2,000
CONCEPTUAL PLAN			l në	1:2,000
CONCEPTUAL CROSS SECTIONS				1:2,000
FINANCIAL ASSURANCE PLAN				1:2,000
ENVIRONMENT PLAN	50]			1:10,000
	LOCATION CUM KEY PLAN  LEASE AREA PLAN  SURFACE CUM GEOLOGICAL PLAN  GEOLOGICAL CROSS SECTIONS  WORKING PLAN  WORKING CROSS SECTIONS  CONCEPTUAL PLAN  CONCEPTUAL CROSS SECTIONS  FINANCIAL ASSURANCE PLAN	LOCATION CUM KEY PLAN  LEASE AREA PLAN  SURFACE CUM GEOLOGICAL PLAN  GEOLOGICAL CROSS SECTIONS  WORKING PLAN  WORKING CROSS SECTIONS  CONCEPTUAL PLAN  CONCEPTUAL CROSS SECTIONS  FINANCIAL ASSURANCE PLAN	LOCATION CUM KEY PLAN  LEASE AREA PLAN  SURFACE CUM GEOLOGICAL PLAN  GEOLOGICAL CROSS SECTIONS  WORKING PLAN  WORKING CROSS SECTIONS  CONCEPTUAL PLAN  CONCEPTUAL CROSS SECTIONS  FINANCIAL ASSURANCE PLAN	LOCATION CUM KEY PLAN  LEASE AREA PLAN  SURFACE CUM GEOLOGICAL PLAN  GEOLOGICAL CROSS SECTIONS  WORKING PLAN  WORKING CROSS SECTIONS  CONCEPTUAL PLAN  CONCEPTUAL CROSS SECTIONS  FINANCIAL ASSURANCE PLAN

# LIST OF ANNEXURES

I	Copy of LOI from the Director of Mines & Geology, Ibrahimpatnam vide Proceedings No. 3456/D4/2017 dated 04.04.2022		
II	Copy of Letter from The Forest Department Vide RC No EFS02-15029/61/2018-FCA SEC-PCCF/CA-3 dated:15.03.2022		
III	Copy of Letter from The Forest Department Vide RC No 116/2015-D1 dated:31.01.2022		
IV	Copy of Chemical Laboratory		
V	Copy of Google Image		
VI	Copy of Photographs of the Quarry lease Proposed Area.		
VII	Copy of Photographs of the Boundary Pillars.		
VIII	Copy of RQP Certificate		

APPROVED

MINING PLAN FOR LATERITE
INCLUDING PROGRESSIVE MINE CLOSURE PLAN
(Under Rule 7 A (i) of APMMC Rules'1966 &
Rule 7 A (3) of APMMC, 1966)
(FOR THE FIRST FIVE YEARS PLAN PERIOD)
Over an extent of 9.750 Hectares in Comp. no: 606 of

Saralanka R.F., Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range Kakinada Division, East Godavari District, and Colon

Andhra Pradesh State.

#### **APPLICANT**

M/s Bhaskara Minerals,
Mg.P: Sri Dwarampudi Veerabhadra Reddy,
D.No. 11-15-3, Achyutaramayya Street,
Near Bala Tripura Sundari Temple,
Ramaraopet, Kakinada-533004,
East Godavari District,
Andhra Pradesh State
Ph No:9849801111
E Mail Id:bhaskaraminerals@outlook.com

Prepared By
Sri Golla Veeraswamy
Consultant Geologist & RQP
Regn. No. RQP/ DMG / AP/ 01/2021

#### INTRODUCTION

M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddyfiled an application for grant of quarry lease for Laterite over an extent of 9.750 Hectares of Forest Land in Compartment No. 606 of Saralanka RF, Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Division, East Godavari District, Andhra Pradesh State.

The Asst. Director of Mines and Geology, Rajamahendravaram, submitted proposals recommending for grant of Quarry Lease for Laterite over an extent of 9.750 Hectares of Forest Land in Compartment No. 606 of Saralanka RF, Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Division, East Godavari District, Andhra Pradesh State in favour of M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddyfor a period of 20 years.

the conditions Stipulated indicated in the Mining Plan Approval Letter No. 206/06/2022. Date 02:06:2022

Dy. DIRECTOR OF MINES & GEOLOGY GOVT OF ANDHRA PRADESH KAKINADA,

1

After careful examination of the proposals of the Assistant Director of Mines and Geology, Rajamahendravaram, the Director of Mines & Geology, Ibrahimpatnam decided in principle to grant of Quarry Lease for Laterite over an extent of 9.75 Hectares of Forest Land on Compartment No. 606 of Saralanka RF, Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Division, East Godavari District, Andhra Pradesh State, in favour of Miss Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy for a period of 20 years subject to submission of Approved Mining Plan with a condition that the Approved Mining Plan shall reflect the restrictions to be adopted by the applicant while conducting quarry operations due to existence of any structures, railway line, roads, water bodies such as river etc., and the stipulated distances as per the various regulations prescribed under Mines and Metalliferrous Regulations '1966 along with Consent for Establishment from A.P. Pollution Control Board & Environmental Clearance from Ministry of Environment & Forests (MoEF) as per Environment Impact Assessment Notification through S.O. 1533, dated 14-09-2006 to consider grant of quarry lease for Laterite vide Director of Mines & Geology, Ibrahimpatnam, and issued Notice No. 3456/D4/2017, dated 04.04.2022in favour of M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy(Annexure - I).

•

.

•

.

•

0

**M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy** approached Sri Golla Veeraswamy, Consultant Geologist and RQP (RQP / DMG /AP /01/2021) for preparation of Mining Plan in the above mentioned area.

Accordingly this Mining Plan is prepared as per guidelines issued in Form-T in G.O.MsNo.56, Industries & Commerce (M.II) Department, dated: 30.04.2016 under Rule 7A of APMMC Rules '1966 and Progressive Mine Closure Plan for the first five years plan period and submitted to the Deputy Director of Mines & Geology, Kakinada for Approval.

The Mining Plan for systematic mining is prepared with main emphasis as method of working an aim to ensure systematic development, conservation and safety of mining of Laterite deposits and protection of environment.

# 1.0. GENERAL

1.0.0	GENERAL	
1.1	Name and Address of the applicant	M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy. D.No. 11-15-3, Achyutaramayya Street, Near Bala Tripura Sundari Temple, Ramaraopet, Kakinada-533004, East Godavari District, Andhra Pradesh State. Ph No: 9849801111 E Mail Id:bhaskaraminerals@outlook.com
1.2	Status of the applicant	Private Firm
1.3	Mineral for which applicant intends to mine	Laterite
1.4	Name and Address of the RQP who prepared the Mining Plan	Sri Golla Veeraswamy Consultant Geologist & RQP Regn. No. (RQP / DMG / AP/ 01 / 2021) Bommasani Sadhan, 2nd Floor, Near One Centre, Gollapudi, Vijayawada- 521225 Ph.No-8639153355 Mail Id: veeragollageo@gmail.com
1.5	RQP Registration No. & Validity	RQP/DMG/AP/01/2021 (ValidUpto27 <sup>th</sup> April 2031).

# 1.6 LOCATION AND ACCESSIBILITY

# 1. Applied Area / Lease Details

aram Range, Kakinada Division  in falls in the Survey of India, Toposhee  in falls in the Survey of India, Topo
i falls in the Survey of India, Toposhee  a) and is bounded.  Quarry Lease Applied AreaDATUM- 584, ZONE-44Q  LONGITUDE  14" E82°17'28.23856" 40" E82°17'28.23856"
falls in the Survey of India, Toposheed and is bounded.  Quarry Lease Applied AreaDATUM- 584, ZONE-44Q  LONGITUDE  14" E82°17'28.23856" 40" E82°17'28.28606"
falls in the Survey of India, Toposhee  a falls in the Survey of India, Toposhee  a punction of of India,
Downward   AreaDATUM-   S84, ZONE-44Q   LONGITUDE     14"   E82°17'28.23856"     40"   E82°17'28.28606"
Downward   AreaDATUM-   S84, ZONE-44Q   LONGITUDE     14"   E82°17'28.23856"     40"   E82°17'28.28606"
Downward   AreaDATUM-   S84, ZONE-44Q   LONGITUDE     14"   E82°17'28.23856"     40"   E82°17'28.28606"
Downward   AreaDATUM-   S84, ZONE-44Q   LONGITUDE     14"   E82°17'28.23856"     40"   E82°17'28.28606"
14" E82°17'28.23856" 40" E82°17'28.28606"
40" E82°17'28.28606"
40" E82°17'28.28606
13" E82°17'24.06170
63" E82°17'19.73897"
62" E82°17'16.90363"
99" E82°17'16.80502"
50" E82°17'16.88628"
54" E82°17'20.41256"
64" E82°17'23.88733"
E82°17'28.39156"
59" E82°17'28.02905"
80" E82°17'28.08119"
100 055 401
14007
15.400
126" E82°17'28.06467" ayawada is a recognized agency by st
0 5 7 1

Map (Plate - I).

The Cadastral Map certified by the Asst. Director of Mines & Geology, Rajahamahendravaram, in favor of M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy is given as Plate No. II

2.Period of quarry lease proposed = 20 years

The location of the area is indicated in Key - Cum - Location

Medorate of Mili

# 3. Infrastructure and Communication

Availability of Water	The ground water level is available 100M BGL. The Agricultural fields in the surrounds of the Quarry Lease area are irrigated by Ground Water.				
Availability of Electricity	Electricity is available in all the nearby villages and in the agricultural lands for bore wells.				
Communication Network	Tele Communications are available at the Dharamallapuram& Pedamallapuram Villages.				
Road Network	A B.T. Road of 18.3Km length is connecting to SH-13 (Tuni-Kathipudi) Road from Dhara Mallapuram Village State Transport Bus Services ply from (SH-13 Tuni-Kathipudi Road) frequently; Private Transport is also available on this road network.				
Nearest Rail Head	Tuni Railway Station is at a distance of 28.3Km towards East of the quarry lease applied area.				
Port Facility	Kakinada Port is at a distance of 50.6 Km towards South of the quarry lease applied area.				
School	Primary School Education is available Dhara Mallapuram & Peda Mallapuram Villages. Higher Education is available at Powthalapudi & Tuni Towns.				
Medical Facility	Registered Medical Practioner is available at Dhara Mallapuram & Peda MallapuramVillages. Rowthalapudi, Tuni&Rajamahendravaram is well placed for Doctors, Nursing Homes & Hospitals.				

#### **BOUNDARIES**

North	Hill Area	
South	Hill Area	
East	Hill Area	
West	Hill Area	

Further good potential exists for the employment of unskilled labour in the existing Quarries and Allied Small-Scale Industries. The area experiences Semi - Arid Climatic Conditions with an average annual rainfall of 1000 mm. The local day temperature varies from 28° C in November to 50° C in April & May Months. The general wind direction reported is SW to NE and SE to NW.

# 4. DETAILS OF APPROVED MINING PLAN, IF ANY

No mining plan was approved earlier. The present document is for assessment of quarry activity, Reserve Estimation, Proposed method of mining, Environmental management mining plan including reclamation and rehabilitation measures to be adopted. The Applicant will approach ADMG for necessary permissions to start Quarry operations.

# PART - A GENERAL DETAILS OF THE APPLIED AREA / QUARRY LEASE AREA

		11:3 13
1	Topography	The quarry lease applied area is a hill lock raised 39M above ground level within the quarry lease applied area. The lowest contour is 563M and highest contour is 602M in topo plan (Plate-III).
2	Drainage	Sub-Dendritic Pattern in SW – NE direction
3	Vegetation	The area is occupied by scattered sparse vegetation of thorny trees and small bushes
4	Climate	The area experience semi-arid climatic conditions. The area experience 1000mm average annual rainfall during August November months. The day temperature varies 28°c in winter and about 50°C in summer season. The general wind direction is SW to NE & SE-NW.
5	Rainfall	The average annual rainfall of the area is 1,000 mm.
6	Soil Type	Red Lateritic Soils
7	Land Use Pattern	The quarry lease applied area is hill lock with sparse vegetation small bushes from the vegetal cover.

#### 2.0 GEOLOGY AND EXPLORATION

a) Brief description of Regional Geology with reference to location of lease / applied area Regional Geology

The Northern part of the East Godavari District forms a part of the Eastern Ghats Mobile Belt, Exposing all the character eristic lithounits of the Eastern Ghats Super Group Viz., the Khondalite, Charnockite, Migmatite groups. The Khondalite group is represented by Quartz-garnet-sillimanite gneiss (Khondalite), along with un-mappable units of quartzite and calc-granulites/gneiss. The Charnockite groups consist of acidic, intermediate and basic varities. The migmatite group includes a host of rock types, like Porphyroblasticgranitiod gneiss, leptynite, garnet-biotite-hypersthene gneiss. These rocks were subjected to Granulite facies of metamorphism owing to the repeated folding and shearing and traversed by pegmatite and of different periods. They make up the hill ranges of the Eastern Ghats. The rock generally trends in NE-SW direction with steep dips due SE. At places the hill tops are capped by crusts of Laterite.

#### b)Detailed description of geology of lease applied area.

Lithology		Age	Thickness
Soil :		Recent :	1-2m
Laterite Float		Quaternary	2-20m
Khondalite		Archean	>20m
Ferruginous		Archean	+5 M
	1 I'm (FIZIZ)		

Kaolinised Khondalite (FKK)

The lease area is formed by the Archean meta-sedimentary sequence comprising the khondalite and its faces variants occur on hill tops. Laterite is the economical litho-unit un-conformably overlying on Khondalite and available as a capping on top of the hill portions. Whereas the base rock of Khondalite is exposed on the slopes at lower reaches on eastern sides with alluvial soil and scree material. The massive laterite along with lateritic soil, exposed on top of the hill and it was excavated to its full thickness up to the base rock (Khondalite). Un-excavated portion of the laterite area is remained on NEside and it will be excavated in this scheme period.

**Soil:** There are two types of soils available in this area. One is Lateritic Soil and anther one is alluvial soil. Due to weathering and defragmentation of Laterite. The Lateritic Soil was formed and covering the Lateritic formation at higher elevations. The Lateritic Soil will be mined along with Laterite and it will be supplied to the Cement Industries. Whereas, the alluvial soil is formed at lower levels by transportation of weathered material of Laterite and Khondalite from higher elevations. This soil covers only the base rock i.e., Khondalite at slopes of the lease area and it does not have any commercial value.

**Laterite:** It is a residual deposit formed under specific climatic conditions in tropical regions. It is formed on top of the hill at higher altitudes. It is soft in nature and it shows brown colour on the surface due to weathering. But the fresh surface of the mineral shows reddish brown in colour. The content of the alumina varies from 28.15 to 40.39%,  $Fe_2O_3$  varies from 19.8 to 34.6% & Silica is varies from 7.61% to 20.00%. This analysis of the mineral meets the threshold value of the "Aluminous Laterite".

**Khondalite:** The khondalite belongs to Eastern Ghats is represented by Quartz-garnet-sillimanite gneiss. It is exposed as massive body on the slopes of the applied area as country rock to the Laterite at lower reaches and it does not have any chemical value at present.

#### c) Details of Quarry Lease Applied holder:-

M/s Bhaskara Minerals,
Mg.P: Sri Dwarampudi Veerabhadra Reddy,
D.No. 11-15-3, Achyutaramayya Street,
Near Bala Tripura Sundari Temple,
Ramaraopet, Kakinada-533004,
East Godavari District,
Andhra Pradesh State.
Ph No: 9849801111
E Mail Id:bhaskaraminerals@outlook.com.

#### d) Details of Prospecting/Mining carried out

Separate Prospecting was not conducted as all around the quarry is with good laterite deposits and promising exposures and outcrops. The Mineral body is visible upto Ground level RL- 543M. Mineral features are visually appears.

The below examinations gave satisfactory results:

- i)Visual examination of the mineral present in the exposures and outcrops.
- ii)Collection of surface sample and chemical analysis.

#### **Present Status:**

The Quarry Lease applied area is virgin without any excavations.

# e)Geological Plan area on 1:1,000 or 1:2,000 Scale

**Topographical Survey** 

Total Station (5 Cm accuracy) was deployed to capture the contours.

The TBM is taken at Boundary pillar c with its value is 563 M

The Cadastral Map certified by the Asst. Director of Mines & Geology, Rajamahendravaram,

stitched on the Surface Cum Geological Plan (Plate - III).

The geo co-ordinates were fixed using the DGPS Survey Machine, the accuracy of geo coordinates are various from ±1 Cm to ±3 Cm and the accuracy of the geo-coordinates of the area depends upon signal strength of the satellite signals.

#### MAP DATUM:WGS - 84

Position Format	hddd – mm – ss.s
Map Datum	WGS - 84
Units	Metric
North Reference	True North
Variance	001° W
Angle	Degrees

#### f)Surface Cum Geological Plan prepared on a scale 1:2,000

Detailed field survey conducted to prepare the surface plan representing the topography and other surface features. The surface Geological Plan of the quarry area prepared in 1:2000 scale with contour interval of 3m enclosed as Plate No.III

### g)Geological Sections on natural scale at suitable interval across the leasearea or applied area

Geological traverses in the subject area in the vicinity facilitated to access the shape and size of the deposit in the area. It is a part of hillock rising 39m above ground level within the applied area (the lowest contour is 563M and highest contour is 602M)

#### **Method of Estimation of Reserves**

The cross sections were drawn perpendicular to the strike direction, the cross sectional area of the individual sections are calculated to arrive at sectional area, the area is multiplied by the sectional influence between 67M to arrive the volume of mass. Based on the physical appearance of the deposit it is assumed that recovery factor of 95% is anticipated.

Sections A-A' to F-F' were drawn in S-N direction at equal interval between 67Mts (Plate-III)

## h)Broadly indicate the future program of exploration with due justification taking into consideration the future tentative excavation programme planned in firstfive year

Year	No. of Boreholes (Core / RC / DTH)	Grid Interval	Total meter age	No. of Pits, Dimensions and Volume	No. of Trenches, Dimensions and Volume
1st	N.A		- 1- 1-	N.A	N.A
2 <sup>nd</sup>	N.A			N.A	N.A
3rd	N.A	-	-	N.A	N.A
4 <sup>th</sup>	N.A	-		N.A	N.A
5 <sup>th</sup>	N.A			N.A	N.A

Not applicable for this quarry, this Laterite mining lease applied area is located on part of hill 20mabove the ground level.

ste of Mines & Geo/

i)Reserves and Resources as per UNFC. Detailed calculation of reserves shall be stated,

The exposed Laterite deposit is found to be irregular in shape, the volume of the deposite is computed by cross sectional area method by multiplying the cross sectional area with proved depth up to RL 543

The Cross Sections were drawn perpendicular to the strike direction the cross sectional area of the individual sections are calculated to arrive at sectional area, the area is multiplied by the sectional area influence between 67m to arrive he volume of the deposit.

The Cross Sections in S- N Direction are drawn at interval between 67m respectively. 6 Cross Sections A-A' - F- F' are drawn.

Based on the physical appearance of the deposit, it is assumed that the recovery of the laterite from the quarry is 95%.

# 6 Cross Sections (A-A'- F-F') are drawn perpendicular to the slope direction for profile

**Categorization of Reserves** 

Hence, only G1 (Proved) scale category as (111) code is calculated. No resources are considered under G2 & G3 (Probable & Possible) scale of exploration The deposit up to RL 541 considered as proved Reserves.

Reserves and Resources per UNFC

(UNFC code for area considered or different categories of reserves/resources estimation may also be marked on geological cross sections.)

(A)Category of deposit as per UNFC Guidelines:

Through the strike of body is assumed S-N direction. The Strike length of the body measured 400M (Approx.) in the area with an average width of 300M.

For the present estimation the following procedure has been adopted. As per the classification of UNFC The deposit falls under (VII).

# Parameters considered for reserves /Resource Estimations:

- 6 No.s of Geological Cross Sections have been drawn for the assessment. These sections are designed as A-A' -F-F'.
- Sectional influence is 59M considered.
- Area is calculated from the sections where the laterite body has been marked.
- Depth up to RL 543 of the subject area is considered as depth of the deposit.

# Justification under UNFC classification

(A) Geological Axis:

Geological Survey: The topographical survey of mining lease applied area covering 9.75 Ha was carried out with total station Survey on 1:1000 scale with a grid of 100m was drawn and a surface geological plan with contours 3 m intervals.

Assumed bench mark on the SE side boundary points no 03 at 563M. The surface geological plan plate-III has been prepared showing all the surface features. The surface geological plan formed the base for systematic geological mapping of various litho logical units within the mining lease applied boundary.

#### Reserves/Resource Estimations:

1. Sampling: Un biased Muck sampling at random areas

2.Chemical Analysis: Analysis of the sample has been made at Kurnool. (Annexure-IV)

3. Recovery with cut-off grade & tonnage factor: Recovery factor is considered to be 95% and tonnage factor to 2.0

B) Feasibility Axis

Geology: Geology of the area is studied by referring exposures of deposit and depicted on the geological plan and other relevant plans. Geological cross sections formed the base or reserves estimation. Taking into consideration of all aspects such as statutory limits, safety zone, depth, and lateral extension factors, the reserves and resources evolution has been made.

Quarrying: Based on the G1 and G2 level reserve is estimated, while the resource was on to basis of interpolation and geological continuity of the deposit. Quarrying activity has not been started in

the area. Quarry Operations will be Semi Mechanized method.

Processing: No Processing Is Required.

Infrastructure: Office, rest Rooms, First Aid Room, Shelters, Lavatory, and boreWell for drinking water provided by the Applicant.

C)Economic Axis:

Detailed Exploration: The detailed exploration/ including geological survey & study in the area has indicated recoverable/ salable reserve of 60,60,388Tons with average grade can be economically extracted.

Mining report/Mining Scheme/Working Mining: Fresh Mining Plan.

Specific Knowledge of forest /non forest and other land use: The Mining lease applied area is forest land NOC in the vicinity of Reserves forest. The entire land is Govt Land divert to quarry which shall be economically used for quarrying purpose.

Under Economic axis the deposit/applied area is categorized as E2

Based on the detail study under EFG classification of UNFC, the reserves estimated will come under proved reserves of category-II

Mineable Reserves (111)

Up to RL-543 level considered as proved reserves.

Probable (121) reserves: not calculated.

# Furnish detailed Calculation of reserves/ resource section wise:

The section wise reserves estimated with in the explored area are tabulated below category wise:

Mineral/ ore blocked due to benches, barriers, pillars, road, railway, river, nala, reservoir, electric line and other statutory bodies etc., under forest, sanctuaries etc. where necessary permissions are not available.

Based on the available explored deposit in the mining lease applied area and parameters considered to assess reserves, it has been attempted to allocate the laterite reserves under UNFC  $code. The\ cross section method is most reliable method for estimating the mineral reserves.$ 

Hence cross section method has been adopted for calculating the reserves of the Formulae:

V = ((s1+s2)/2)\*L1 + ((s2+s3)/2)\*L2 + ((s3+s4)/2)\*L3 + ((sn-1+sn)/2)\*Ln

Where, V= Volume of the Reserves

S1=Sectional Area-I, Sn= Sectional area (S1+S2)/2

S2=Sectional Area-II, L=Distance/Length between sections

\*Note: The reserves estimated by using formula as above said discussed method of estimation of reserves. Further the total reserves estimated by AUTO CAD 2014 Version. So, the reserves may vary up to 5%-10% from Manual calculation Reserves to CAD calculation reserves. If the variation is above 5%-10% is observed during course of time, the applicant will submit a modified mining plan accordingly.

10

# RESERVES CALCULATIONS:

				TOTAL	TOTAL GEOLOGICAL RESERVERS	KESEKVEKS			
1 ( ) ***	CROSS- SECTIONS	CROSS SECTIONAL AREA (Sq.m)	AVERAGE DETAILS	AVG. CROSS SECTIONAL AREA (Sq.m)	Distance B/W Sections	VOLUME (CU.M)	Volume in Tons (T.F-2.0)	Laterite @95%	(Waste) @5%
1	A-A'	800'6	(S1+S2)/2	9,714	29	6,50,838	13,01,676	12,36,592	65,084
	B-B'	10,420	6/(63+63)	10.495	99	6 92 670	13.85.340	13,16,073	69,267
1	5	10 570	7/(cc+7c)	10,473	3	0.00100			
	ر	10,570	(63+64)/2	10.064	99	6.64.224	13,28,448	12,62,026	66,422
1	i	0 1 1 0	7/(15166)	100,01	2				
	D-D,	9,558	(64+65) /2	9 2 4 1	99	906.60.9	12,19,812	11,58,821	60,991
	j		7/(55115)	7176		and and			
	Я-Я	8,924	0,00.20	0173	70	5 72 040	11 44 080	10.86.876	57,204
	F-F'	7.420	7/(02+56)	9,11,6	0/	3,7,6,010	00011111		
			SIIR TOTAL			31,89,678	63,79,356	60,60,388	318,968

# RESERVES BLOCKED UNDER SAFETY BENCHES

S.NO Si Si Si Si	CROSS-	00000							
	SECTIONS	CROSS SECTIONAL AREA (Sq.m)	AVERAGE	AVG. CROSS SECTIONAL AREA (Sq.m)	Distance B/W Sections	VOLUME (CU.M)	Volume in Tons (T.F-2.0)	Laterite @95%	(Waste) @5%
	A-A'	1332	(S1+S2)/2	1,548	29	1,03,716	2,07,432	1,97,060	10,372
	B-B'	1,764	0/ (63. 63)	1 706	99	1 18 536	2 37 072	2.25.218	11,854
	,,,,	1,828	7/(cc+7c)	1,770	8	occiorit			10,430
			- (83+84)/2	1,580	99	1,04,280	2,08,560	1,98,132	10,478
S4	D-D,	1,332	(\$4+\$5)/2	1.308	99	86,328	1,72,656	1,64,023	8,633
	E-E'	1,284	-11		t	007 00	1 60 050	1,50,813	8 043
Se	F-F'	1,014	(\$2+\$6)/2	1,149	0/	00,430	1,00,000		and the second
		SI	SUB TOTAL			4,93,290	9,86,580	9,37,250	49,330
								e of Mines a Control Malinada  dhra Prodesh	e of Mines & Ger

# RESERVES BLOCKED UNDER 7.5M BUFFER ZONE

			R	RESERVES BLOCKED UNDER 7.5M BUFFER ZONE	KED UNDER	7.5M BUFFER	ZONE		
S.NO	CROSS- SECTIONS	CROSS SECTIONAL AREA (Sq.m)	AVERAGE DETAILS	AVG. CROSS SECTIONAL AREA (Sq.m)	Distance B/W Sections	VOLUME (CU.M)	Volume in Tons (T.F-2.0)	Laterite @95%	(Waste) @5%
S1	A-A'	541	6/ (63 - 63)	072	27	20172	316.31	72 434	3 817
ç,	B-B'	597	7/(76+16)	309	/0	30,143	0,5240	161,17	2,0,0
30	2		(27+63)/2	604	99	39 864	79 728	75.742	3.986
	ō	(41	7/(66,76)	100	8	100,00	07.16		20010
23	ر	911	6/ (43, 63)	660	93	27 554	75 109	71 353	3 755
	à	232	(33+34)/2	202	99	37,334	001,67	6,5,5,5	00110
24	n-n	176	6/ (33, 63)	521	99	385 175	227 89	65 333	3 439
	1	1 7	7/(66+46)	321	00	000,40	277,00	200,00	601.0
25	H-1	515	0,000.100	700	Cr	22 740	27 400	24 106	2 274
Se	F-F'	449	7/(95+56)	487	/ 0	53,740	07,480	04,100	3,374
		SUI	SUB TOTAL			1,83,667	3,67,334	3,48,968	18,366
				RESERVES BLO	OCKED UNDER	RESERVES BLOCKED UNDER EDGE SECTIONS	NS		
		A-A'		7,134	7.5	53,505	1,07,010	1,01,660	5,351
		F-F'		5,958	7.5	44,685	89,370	84,902	4,469
		INS	SUB TOTAL			98,190	1,96,380	1,86,561	9,819
		-	TOTAL			2,81,857	5,63,714	5,35,529	28,185

RESI

Laterite Reserves in Million Tons (T)	0.000,366	liN	Nic + Nic	gesticate of Mines &
Laterite Reserves in Tons	60,00,388	Nil	Nil	
UNFC Code	111	122	333	
Category of Reserves	Proved	Probable	Possible	
S.No	1.	2.	3.	

Proved Reserves	Laterite in Tons
Total Geological Reserves (A)	63,79,356
Reserves Blocked Under Safety Benches (B)	9,86,580
Reserves Blocked Under 7.5M Buffer Zone ( C)	5,63,714
Total Reserves Blocked (B+C)	15,50,294
Reserves available for Mining (A-(B+C))	48,29,062
Extraction of Market Grade Reserves @ 95% Recovery	45,87,609
Average Annual Production @ 95% Recovery	2,50,000

#### j) Mineral Reserves

i) Mode of Mining
Mining Recovery Factor 95%
Mining Loses, Processing Loses etc.,

Opencast Semi Mechanized Method

5%

ii) Cutoff Grade

Not applicable

Ultimate Pit Limit RL-543M(i.e., 20m below the surface is considered to be proved reserves)



illectorate of Mines

iii) Mineral blocked due to presence of / maintenance of benches, barriers,internal roads & electrical lines etc

Mineral blocked under 7.5 M BZ 5, 63,714Tons Mineral blocked Under the Safety Benches9, 86,580Tons

The internal roads are of temporary in nature the follow the suite of benches that will be formed. No Electrical Lines are passing over the subject area.

iv) Total Mineable Reserves / Resources

Category of Reserves	Reserves/Resources (Tons)	Remarks
Proved Reserves (111)	48,29,062	As per UNFC guidelines the
Probable Reserves (122)	Nil	G3 (333) (Possible) category
Total	48,29,062	are not considered as they are not mineable unless proved by exploration

#### 3.0.CONCEPTUAL MINING PLAN:

The conceptual mining plan covering the entire life of the mine up to lease period covering exploration, production, disposal of waste, environmental management etc., is given below.

During the plan period Mining will be carried on in the mining lease applied area with average production of about 2,50,000 Tons per Annum. Therefore with the reserves estimated, the anticipated life of the Mine will be more than 18 Years from the start of the current Mining Plan

#### 3.1Life of the Mine:

.

Life of the Mine = Total Mineable Reserves / Average Annual Production

= 45,87,609/2,50,000

= 18.35or say 18 Years

#### 3.2 Exploration:

No exploration was conducted in this area and exploration is not proposed in this plan period

#### 3.3Reclamation and Rehabilitation:

No reclamation is proposed in the plan period because the quarrying will be continued to further depths and reclamation could be possible only after completion of quarrying up to the proposed depths.

#### 3.4.Afforestation:

Different species are proposed to be planted where ever feasible during the plan period along the 7.5m buffer zone. The proposed sapling and the area occupied along with expected survival percentage in the plan period are given below.

YEAR	AREA (M <sup>2</sup> )	NO. OF PLANTS
1st Year	200	300
2 <sup>nd</sup> Year	200	250
3rd Year	200	250
4th Year	200	100
5th Year	200	100
TOTAL	1000.00	1,000

### 3.5. Waste and Sub grade mineral management:

Total 2, 16,176Tons of waste(Top Soil Waste and Mineral Waste) will be generated during the plan period. The waste generated will be dumped along the North (Plate-VII) side of the quarry lease applied area to an area of 1,500Sq.m (within the quarry lease applied area) with an average height of 35m, with 45°slope angle will be formed. A garland drain will be constructed around the dump for preventing the slanting o boulders.

3.6 Any other information: It is policy of Applicant Company to develop eco-friendly mine to benefit the society and community.

#### 3.0.MINING

#### a)Open Cast Mining

Description of existing / proposed method for excavation with all design parameters indicating on plans / sections.

The Laterite lease applied area is exposed on the surface. Hence, it is proposed to quarry by opencast, Semi Mechanized method, by developing the benches of 6M height with 6M bench width. The development of benches will be maintained @60° safety slopes.

#### **Drilling & Blasting:**

Drilling and Blasting is not proposed as the mineral can be raised with tipper dozer.

# ii) Indicate year wise tentative excavation in cubic meters indicating development, ROM, pit wise as in table.

				ROM from	n Mineralize	d Zone	Waste	ROM /
/ear	Pit No.	Total Tentative Excavation	Top Soil		Sub -Grade Ore	Mineral Rejects	(5%)	Waste Ratio
		(T)	(T)	(T)	(T)	(T)	(T)	(tons)
	-	3	4	5	6	7	8	9
1	2		46,413	2,50,000	Nil	Nil	13,158	1:0.05
1st	1	3,09,571			Nil	Nil	13,158	1:0.05
2nd		2,87,606	24,448	2,50,000	Nil	Nil	13,158	1:0.05
3rd		2,81,303	18,145	2,50,000	1000000	Nil	13,158	1:0.05
4th		3,06,322	43,164	2,50,000	Nil			1:0.05
	-	2,81,374	18,216	2,50,000	Nil	Nil	13,158	1 .0.03
5 <sup>th</sup>		14,66,176	1,50,386	12,50,000			65,790	
	OTAL ERAGE	2,93,235	30,077	2,50,000			13,158	

iii) Dump Management

The waste generated will be dumped along the north of the Quarry Lease area (Within the Quarry lease area) between the grids N 1928627-1928619&E 636952-E637126 covering an area of 1,500 Sq.m with an average height o 35M with  $45^{\circ}$  slope angle will be formed.

# Protective Measures and Precautions to be taken under the waste dump management shark be as follows:

- 1. The ultimate dump slope will be maintained at  $30^{\circ}$
- 2. The individual terrace heights will be maintained at 15m.
- 3. Each terrace will have inward slope with catch drains at the inward side of the terrace
- 4. The catch drains of the individual terrace will be connected to the garland drain outs periphery of the dump.
- 5. These catch drains will have half concrete open pipes followed by settling tanks to avoid wash offs.
- 6. Each terrace will also have a provision of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of berms at the outer end to reduce gully formation of the outer gully gully formation of the outer gully gully
- rain water wash offs. 7. The retaining wall has to be made to arrest the waste dump materials for consolidation and will be constructed during first year of the plan period.
- 8. Garland drains are to be paved around the dump to arrest possible wash off in rainy seasons and will be constructed during first five year of plan period.
- 9. Suitable grass/plan species planted in the dump slope, which will hold the materials in it fibrous and spread over roots to protect wash off in the rainy season.

# iii) Layout of Mine workings, Pits, Roads etc.,

The Applicant will maintain Road and Ramps within the Quarry lease area and strictly following Safety Rules & Regulations etc., & MMR, 1961

# a) Production Proposed for the first five years

It is proposed to produce 12,50,000Tons of Laterite during the five years plan period with an average annual production of 2,50,000 Tons will be produced.

#### Stock Yard

Temporary stocks will be maintained in the lease area on day to day basis, entire ROM will be cleared within days (i.e., 2 to 3 days)

B) Quarrying Program for the next five years:

The applicant proposed to take up quarrying operations in mining lease applied area. The excavation activity will be taken up from proposed southern side of the applied area (Plate-V). Then the advancement of the bench shall be towards North and all directions to achieve the targeted production. Year wise production shall be made as follows and in the block ear marked for the same and shown in the five Year working Plan (Plate-V)

#### 1st Year

In the first year the mining will be initiated from South towards North of the quarry lease between the grids N1928385.8291-N1928509.6354&E applied area between the grids N1720303.0271 will be formed by covering a cross E637019.5196 with a bench of 6 M height and 6 M width will be formed by covering a cross could be solved as a cross could be solved by the covering a cross coverin area section of E-E'. The mining advances northwards.

An Sectional area of 1,620.79 Sq.m with 95.5m Sectional Influence will be excavated producing ROM of 3,09,571 Tons from that 2,50,000 Tons of saleable Laterite @95% and 13,158 Tons of Mineral waste @5% and 46,413 Tons of Top soil waste is anticipated.

In the Second year the mining will be initiated from continuation to next to first year of the quarry lease applied area between the grids N 1928509.6354 -N1928572.5653&E637/17.2784 - E637018.9385with a bench of 6 M height and 6 M width will be formedby covering a cross section of F-F' section of E-E'.

An Sectional area of 1,505.79 Sq.m with 95.5m Sectional Influence will be excavated producing ROM of 2,87,606Tons from that 2,50,000 Tons of saleable Laterite @95% and 13,158 Tons of Mineral waste @5% and 24,448 Tons of Top soil waste is anticipated.

#### 3rd Year

In the Third year the mining will be initiated from continuation to next to Second year of the quarry lease applied area between the grids N 1928573.4345 -N1928621.9641&E637117.3053-E637018.5447 with a bench of 6 M height and 6 M width will be formedby covering a cross section of E-E'.

An Sectional area of 1,4272.79 Sq.m with 95.5m Sectional Influence will be excavated producing ROM of 2,81,303Tons from that 2,50,000 Tons of saleable Laterite @95% and 13,158 Tons of Mineral waste @5% and 18,145 Tons of Top soil waste is anticipated.

#### 4th Year

In the Fourth year the mining will be initiated from continuation to next to Third year of the quarry lease applied area between the grids N1928385.8291-N1928548.5717&E637019.2407-E636953.2424with a bench of 6 M height and 6 M width will be formed by covering a cross

section of D-D'. An Sectional area of 2,320.62 Sq.m with 66m Sectional Influence will be excavated producing ROM of 3,06,322Tons from that 2,50,000 Tons of saleable Laterite @95% and 13,158 Tons of Mineral waste @5% and 43,164 Tons of Top soil waste is anticipated.

#### 5th Year

In the fifth year the mining will be initiated from continuation to next to fourth year of the quarry lease applied area between the grids N1928549.0310 -N1928619.5945&E637018.5447-E636952.5202with a bench of 6 M height and 6 M width will be formedby covering a cross section of D-D'.

An Sectional area of 2,131.62 Sq.m with 66m Sectional Influence will be excavated producing ROM of 2,81,374Tons from that 2,50,000 Tons of saleable Laterite @95% and 13,158 Tons of Mineral waste @5% and 18,216 Tons of Top soil waste is anticipated.

			YE	CAR WISE	RODUCTIC	MF	OR 5 YEARS	,		Total Waste
YEAR	Sec	tions	Sectional Area	Sectional Influence	Volume	T.F	Volume in Tons	Recovery @95%	Waste @5%	(Top soil & Mineral Waste @5%)
		411	(M <sup>2</sup> )	(M)	(M³)		(MT)	(MT)	(MT)	(MT)
		Ton Coil			23,206.5		46,413			46,413
1st YEAR	E-E'	Top Soil Laterite		95.5	1,31,579	2.0	2,63,158	2,50,000	13,158	13,158
			Cotal		1,54,785.5	1	3,09,571	2,50,000	13,158	59,571
		CARLES CONTRACTOR CONTRACTOR	CAST THE TANK		12,224	_	24,448			24,448
2ND YEAR	E-E'	Top Soil		95.5	1,31,579	2.0	2,63,158	2,50,000	13,158	13,158
		Laterite			1,43,803	1	2,87,606	2,50,000	13,158	37,606
			rotal	T	9.072.5		18,145			18,145
3rd YEAR	E-E'	E-E' Top Soil 95 Laterite 1,377.79		95.5	1,31,579	2.0		2,50,000	13,158	13,158
0 12		Laterite 1,377.79			1,40,651.5	_	2,81,303	2,50,000	200000000000000000000000000000000000000	31,303
					21,582	1	43,164			43,164
4th YEAR	D-D'	Top Soil		66		2.0		2,50,000	13,158	13,158
- ILIII					1,31,579	2.0	3,06,322	2,50,000		56,322
			<b>Fotal</b>		1,53,161	-		2,00,000		18,216
Ed AMAD	D D'	Top Soil	138	66	9,108	١.,	18,216	0.50.000	13,158	13,158
5 <sup>th</sup> YEAR	D-D'	Laterite	1,993.62		1,31,579	2.0	1,19	2,50,000	1001-0	31,374
			otals		1,40,687	115	2,81,374	2,50,000		
	-	Sub-Tota	al		7,33,088		14,66,176			2,16,176
		Average			1,46,618		2,93,235	2,50,000	13,158	43,235

Quantum of Excavation:

A total ROM of 14,66,176 Tons will be produced from that 12,50,000Tons of Laterite @95% will be produced and 65,790 Tons of Mineral waste @5% and 1,50,386 Tons of Top soil waste will be generated during next five years.

c) Production Schedule

The production of Laterite continuous throughout year that is 10 working months, 25 working days per month are considered. The average production of 2,50,000T per year 250 days T per day) can be easily achieved in a single shift with sufficient men. of Andhra Prades

d) Magazine Type and Capacity

No permission is issued for storing the blasting material. If required, the blasting will be carried out under Supervision of licensed Blaster, the Applicant will hire the services of Licensed Blasting Contractor.

# e) Description of Processing Plant

Not Applicable.

Under Ground Mining: Not Applicable.

O.M	A	Minimum and Maximum depth of water table	Shallow aquifers during monsoon period and canal flows.  Depletion of water occurs during summer.  Water table depth ranges from 60-65m below ground level.
	В	Indicate Maximum and minimum depth of workings	From Contour 598M-567M to RL-564M to 559M
1	С	Quantity and Quality of water	Potable
	d	Regional Drainage Pattern	Sub-Dendritic

#### 6.0. STOCKING OF MINERAL REJECT / SUB GRADE MATERIAL AND DISPOSAL OF WASTE

During the first five years 65,790Tons of Mineral waste@5%&1, 50,386 Tons of Top soil waste will be produced. Top soil waste will be utilized for construction/stabilization of internal roads. Mineral waste will be dumped in the proposing dumping yard in the North direction covering an area of 1,500 Sq.m at a height of 35 Mts. Later this waste dump will be backfilled in the excavated pits during the conceptual plan period.

Note: Applicant will provide retention wall around the dump to prevent the sliding of waste.

Year	Mineral Waste @5% (Tons)	Soil Waste (Tons)
1st Year	13,158	46,413
2nd Year	13,158	24,448
3rd Year	13,158	18,145
4 <sup>th</sup> Year	13,158	43,164
5 <sup>th</sup> year	13,158	18,216
TOTAL	65,790	1,50,386
AVERAGE	13,158	30,077

#### 7.0 USE OF MINERAL AND MINERAL REJECT

The applicant had surveyed the market in nearby cement industries and the Laterite is conforming to their specifications.

#### 8.0 PROCESSING OF ROM AND MINERAL REJECT

No processing is required.

#### 9.00THERS

#### a)SITE SERVICES

The Applicant is well established in this quarry operations, So Applicant will arrange First Aid Room, Shelters, Loud Speakers or announcements, Helmets, Safety Boots, Nose plugs, Ear Plugs etc., More important is Drinking water will be provided in the Quarry premises and make proper shit arrangements or the workers.

The Applicant will strictly follow and obeyed Mines Safety Rules & Regulations.

#### a)Extent of Mechanization

MACHINERY	
L & T 300 Excavators	1 No.
Wheel mounted Compressors-375 CFM	1 No.
Tipper – 10T/20T Capacity	5 No.s
Water Tanker	1 No.
Ripper Dozer	1 No.
Genset-100 kva	1 No.

#### b)Employment Potential

The human resources deployed are as follows:

MAN I	POWER
Category	No. of Persons
Mines Manager	1
Supervisors	2
Skilled Workers	5
Semi-Skilled	4
Jn-Skilled	6
Total	18

**Labour Employed:** 

Daily 18 members of labour were employed in this quarry.

The Applicant will provide training classes yearly once and also provides shees, helinets, masks ear bugs, spectacles to the employees and a first aid kit in the working site for safety precautions.

d) Safety Measures:

The employer shall permit only authorized and qualified persons to handle and use explosives:

 Smoking, firearms, matches, open flame lamps and other fires, flame or heat producing devices and sparks shall be prohibited in or near explosive magazines.

 No person shall be allowed to handle or use explosives while under the influence of intoxicating liquors, narcotics, or other dangerous drugs.

 All explosives shall be accounted for at all times. Explosives not being used shall be kept in a locked magazine, unavailable to persons not authorized to handle them.

The employer shall maintain an inventory and use record of all explosives.

Appropriate authorities shall be notified of any loss, theft, or unauthorized entry into a magazine.

e) Occupation Health and safety:

The quarrying in this area does not involve any hazardous methods. The quarrying is simple and open cast mining method. The following facilities will be provided to the employees as per the DGMS guidelines and other state and central government departments.

Helmets once in three years as needed under Mines Act.

Safety Shoe to all the employees twice a year as per the same statue.

Safety goggles to the Drill operators which is a site specific requirement.

Nose masks once in two months

• Other step to improve safety conditions is to inculcate the safety culture among the working.

• The possibilities of small injuries are anticipated. The lessee is providing first aid facilities at quarry site and office room.

• Issuing of PPE (Personal Protective Equipment's) to all the persons working and those that are needed for the site specific operations.

· Fire extinguishers in tippers

• Provident fund facilities will be providing.

Ambulance will be provided in case of emergency.

pirectorate of Milies

#### <u>PART – B</u> ENVIRONMENT MANAGEMENT PLAN

ENVI	RONMENT BASE LI		ANAGEMENT PLAN		(		
i)	Existing Land Use Pattern	The Ouarry lease an	oplied area is part of land is barren hill & roc	hill area with modera ky exposures and not	ite fit f		
ii)	Water Regime	The ground water occurs under unconfined to confined conditions in both hard rock and alluvium which are shallow in nature.  No impact on surface water or ground water is foreseen due to quarr operations.					
iii)	Flora and Fauna	The whole area is occupied by scattered sparse vegetation of thorny trees and small bushes.					
iv)	Quality of Air, Ambient Noise Level and Water	<ul><li>on the road, blast</li><li>The noise general</li><li>LateriteQuarrying</li></ul>					
v)	Climatic Conditions	climate. The tempe about 48°C in summ average annual rainf	The area is falling under semi-arid tropical zone. The area is having dry climate. The temperature recorded in this area is 25°C in winter and about 48°C in summer seasons. The wind direction is in SW to NE. The average annual rainfall of the area is 1000 mm.				
vi)	Human Settlement	The area is located at a distance of 550m from the Pedduru Village having a population of 1125. Agriculture and sheep breeding ar important profession of the people living in the village besides involvin themselves in quarrying activity.					
vii)	Public Buildings, Places & Monuments	A B.T. Road of 18.3Km length is connecting to SH-13 (Tuni- Kathipud Road from Dhara Mallapuram Village. South Central Railway Line is passing at the distance of 28 Km due East of the quarry lease applied area. No public buildings, important places and monuments are seen in an around the quarry lease applied area. The Applicant will adopt the safety measures while conducting the quarry operations as per the Regulations of Metalliferrous Mines Regulation 1961					
Viii)	Sanctuaries	No bird or animal sa	nctuaries are existing in	10 Km radius			
Ix	Eco-Sensitive Areas	No Eco Sensitive are existing in 10 Km radius					
	Afforestation	lease applied area ov N1928381 - N19283	ses for at forestation in ver an extent of 1000 M 90 & E 637117- E 6369 Neem plants (Plate - VI AREA (M²)	<ul><li>between the grids</li><li>for the phased manner d</li></ul>	luri		
x		1st Year	200	300			
		2 <sup>nd</sup> Year	200	250			
		3 <sup>rd</sup> Year	200	200	-		
		4 <sup>th</sup> Year	200	100			
		5 <sup>th</sup> Year	200 <b>1000.00</b>	1,000			
		TOTAL	1000.00	1,000			

# 2.0ENVIRONMENTAL IMPACT ASSESSMENT

			TAC NO. CAL CALLED TO STATE OF THE STATE OF				
		During the first 5 years 37,	516 M <sup>2</sup> of the quarry lease				
	I desare Changes	applied area will be reduced	upto RL-564M to 559M The				
1	Landscape Changes	mining will alter the shape of	of the present modifica Practice				
		large quarry pit.	rries it is filled with dust, due				
H		to boulege on the road but it	will be within the permissible				
		1: '- ber anninkling water on	roads and covering the urm				
		Ja with cloth Air quality	will not be disturbed, as the				
		quarrying is very limited. L	development of greenbert an				
-		along the approach road will a	also act as dust barrier.				
b	Air Quality		Allowable Level				
	¿	Base Level	360 µg/m <sup>3</sup>				
1.		$SPM = 140 \mu g/m^3$	$120 \mu \text{g/m}^3$				
		$RSPM = 60 \mu g/m^3$	$80\mu \text{g/m}^3$				
14		$SO_2 = 40 \mu g/m^3$	80μg/m <sup>3</sup>				
		$NO_2 = 40 \mu g/m^3$	$80 \mu g/m^3$ 5.0 $\mu g/m^3$				
		$CO = 1.0 \mu g/m^3$	not be disturbed as the quarre				
		The water environment will	not be disturbed as the quarry				
		ic far off from the water cou	irses. Hence, there will not be				
		any impact of quarrying to th	not release any toxic / acid				
	Water Quality	As granite quarrying does	ound water is envisaged				
C	Water Quality	substances. No, impact on gr	ite has no adverse affect is				
		The mining of Black Gran	me in the area				
		anticipated on the water regime in the					
d	Noise Levels	permissible limits and will will provide suitable prote minimizing the noise pollut well maintained.  The noise levels for various and the noise pollution and the noise levels for various and the noise levels for variou	poise level will be within the not cause harm the applicant ctive gear to the workers for ion and the machinery will be activities are 98 dB(A) 91 dB(A), 103 dB(A) 96 dB(A) POSURE FOR DIFFERENT THE IS GIVEN BELOW				
		<b>Duration Per Day</b>	Sound Level Dba				
		(Hrs)	80				
		16	85				
		8	90				
		4	95				
		2	100				
		1	105				
		1/2	110				
		1/4	115				
		1/8	110				

		The haulage, machinery and the drilling of drill holes will be generate noise. However, the probable noise level will be within the permissible limits with in 100 d B (A) and will not cause harm.  • The machinery will be maintained properly to reduce the noise  • The protective noise reducing gear like earmuffs, the applicant will provide earplugs.  • Proper maintenance of equipment	Mines
e	Vibration Levels	As the operations are in small scale, the noise generated from the quarrying will be within permissible limits. Control blasting procedures shall be adopted to minimize the noise during blasting and the advanced jackhammer drills shall be used to reduce the noise levels during drilling.	
f	Water Environment	The water environment will not be disturbed as the quarry is far off from the water courses.	
g	Acid Mine Drainage	No acids will be generated from Laterite quarry	
h	Surface Subsidence	No subsidence is anticipated in this regime as the basement rock is massive and away from the seismic zone	
i	Socio economics	The main occupation of villagers is agriculture and sheep raring. The commencement of mining activity in this area improved the socio-economic status of the local people by creation of employment and paying taxes to local bodies.	
j	Historical Monuments	No historical monuments exist within 5 Km radius	
k	Bio-Diversity	No impact will happen to the Mankind, Flora and Fauna by the quarry operations, excepting minor vibrations due to blasting, sound pollution and dust which will be under control and within the permissible limits.	

#### <u>PART - C</u> <u>PROGRESSIVE MINE CLOSURE PLAN</u>

#### 1.0RECLAMATION PLAN

The quarry lease applied area is part of Hill lock. The lease was applied recently, so Reclamation process will be done after the quarrying operations are done, so there is no need of reclamation at present situation.

Year	Pit No.	Mined out area at the beginning (Ha)	Additional area proposed for working in the year (Ha)	Total Area (Ha)	Backfilling & Afforestation in the year (Ha)	Mined out area at the end of the year (Ha)
		Nil	1.1138	1.1138	-4-1	1.1138
1 <sup>st</sup>			0.6285	1.7423		1.7423
2nd	1 4	1.1138				2.1988
3rd	10.11	1.7423	0.4565	2.1988		
		2.1988	1.0777	3.2765		3.2765
4th				3.7516		3.7516
5 <sup>th</sup>	-	3.2765	0.4751	3./510		01,020

#### 2.0 MINED OUT LAND

Land Use Pattern of the lease area during the next five years will be as follows. The land that is undisturbed will be broken in the successive conceptual periods. The Life of the quarry is anticipated to be 18years as of present.

Para Para Para Para Para Para Para Para	S.NO	Particulars of Land Area	Area (Ha)	
	1st	Mined out Area	D	
	2 <sup>nd</sup>	Road	1.50	
G. for Plan	3rd	Unmined area	7.45	
Surface Plan	4 <sup>th</sup>	Safety Zone area	0.80	
		SUB TOTAL	9.75	
	1 <sup>st</sup>	Mined out Area	4.0081 (including Dum) Yard& Stock yard)	
End of the Plan	2nd	Road	1.50	
Period	3rd	Unmined Area	3.4419	
	4th	Safety Zone area	0.80	
	4 ti	Sub Total	9.75	
	1 et	Mined out area	7.45	
	1 <sup>st</sup>	Road	1.50	
End of the	3rd	Unmined area		
Conceptual Period		Safety Zone area	0.80	
	4 <sup>th</sup>	Sub Total	9.75	

#### 3.0 TOP SOIL MANAGEMENT

O TOP SOIL MANAGEMENT

Generated Top Soil will be spread in the 7.5 M buffer zone area for plantation and also utilized development of Ramps purpose.

#### **4.0 TAILING DAM MANAGEMENT**

Not applicable

#### 5.0 DISASTER MANAGEMENT AND RISK ASSESSMENT

To mitigate the emergency, planning is the first & four most thing, i.e. recognizing the accident or possible, assessing the consequences of such possible accidents and deciding on emergency planning / procedures in advance both on site & off site that would necessary to be implemented in the event of emergency without any delay and confusion.

Proper bench design in mines and observing safety measures for transportation, storage, handling of explosives & fuels, etc, good maintenance of vehicles, roads, fire prevention measures shall go in preventing disaster / accidents.

Quarrying shall be carried out as per MMR 1961 & Rules and regulations applicable the project in charge is having a mobile communication for quick intimation of information if need arises. The Applicant is committed to identify the possible causes for potential disaster and draw a code of emergency measures and procedures to deal with such disasters, which is otherwise also advised by DGMS through their Circulars.

The quarry is having good communication like telephone & mobile facility. In case of any minor / major accidents within the quarry, the same will be communicated to the Agent by the Mines Manager and intern he will inform to the Revenue Authorities, Police, Fire Department, DGMS etc for action.

A vehicle is kept all the time at the quarry site for conveyance. At quarry level first aid will provide and person shall be shifted to nearby hospital Yeleswaram which is having all basic amenities.

# 6.0 CARE AND MAINTENANCE DURING TEMPORARY DISCONTINUANCE

For the protection of mine and mined – out pits the watchman will be engaged when the mine is temporarily discontinued.

ITEM	DETAILS	PROPOSED	ACTUAL
Dump Management	The waste generated will be dumped in the South of quarry lease applied area. The waste will be re-handled for backfilling during the Conceptual Plan period.	- Wholate	ACTUAL Si Mines & Geologia
Area afforested (ha) No. of saplings planted Cumulative no of plants Cost including watch and care during the year	<ol> <li>Area available for rehabilitation (specify)</li> <li>150 of saplings planted in the year</li> <li>Cumulative no of plants</li> <li>Any other method of rehabilitation (specify)</li> <li>Cost including watch and care during the year</li> </ol>	Plantation is proposed all along the 7.5 M Buffer Zone and along the both sides of approach road.	Andhra Prates
Reclamation and Rehabilitation by backfilling	<ol> <li>Void available for backfilling (L x B x D) pit wise / stock wise Void filled by waste / tailings afforestation on the backfilled area</li> <li>Rehabilitation by making water reservoir Any other means (specify)</li> </ol>	No back filling is proposed during the plan period	
Rehabilitation of waste land within lease	Area available (Ha)     Area rehabilitated	No proposals are made	

#### 7.0 FINANCIAL ASSURANCE:

Financial Assurance has amendment under rule of 7(A) of chaper-9 of Model-Form-T vide G.o.ms No.53 dt 27-02-2019 and stated that the financial assurance can be submitted in the form of a bank guarantee from a nationalized scheduled bank, a minimum amount of financial assurance to be furnished 50,000/- for the quarry Lease granted below 5 Ha & 10,000/- per ha (or) part thereof for the Quarry Lease granted 5 Ha & above.

Therefore the quarry lease Lessee can be paid 50,000/- for Financial Assurances for below 5 ha in form of bank guarantee to the ADM&G, Rajamahendravram accordingly above rules.

# 8.0 FINANCIAL ASSURANCE PROFORMA

The details of area put to use and calculations there off for financial assurance are given in the Performa as below:

# DETAILS OF AREA CONSIDERED FOR COMPUTATION OF FINANCIAL ASSURANCE

S.No.	Н	ead	Area put on use at the start of plan (In Ha.)	Additional requirement during the plan period (in Ha.)	Total (In Ha.)	Area considered as fully reclaimed and rehabilitated (In Ha.)	Net area considered for calculation (in Ha.)
1	2		3	4	5	6	7
1	Area und	er Mining	Nil	3.7516	3.7516	-1	3.7516
2		or Top Soil	Nil	Nil	Nil		Nil
3		den / Dump	Nil	0.15	0.15		0.15
4	Mineral S		Nil	0.1065	0.1065		0.1065
5	Infrastructure (Workshop, Administrative Building etc.,)		Nil	Nil	Nil	Nil	-
6	Roads		1.50	Nil	1.50		1.50
8	Green Belt		Nil	(0.1)	(0.1)		(0.1)
9	Tailing P		Nil	Nil	Nil		Nil
10		ation Plant	Nil	-	-	-	-
11	Mineral Separation		Nil		¥ -		-
12	Townshi	p Area	Nil	Nil	Nil	-	Nil
		Retaining Wall	Nil	Nil	Nil	Nil	-
13	Others	Fencing around the pit (included quarry area)	Nil	(1162M)	(1162M)	•	(1162M)
	GRAND TOTAL		1.50	4.0081	5.5081		5.5081

#### 9.0 CERTIFICATE

Certified that the above mentioned will be taken care in the Progressive Quarry Closure Plan for Quarry Lease for Laterite over an extent 9.750 Hectares in Compartment No. 606 of Saralanka RF, Pedamallapuram Beat, Rowthalapudi section, Yeleswaram Range, Kakinada Divison, East Godavari District, Andhra Pradesh State

All statutory organizations, courts etc. have been taken into consideration and wherever any specific permission is required the applicant will approach the concerned authorities.

All the measures proposed in this closure plan will be implemented in a time bound manner as proposed.

#### 10.0 PLANS & SECTIONS

Plans and Sections are submitted along with Mining Plan.

APPLICANT

M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy .

. Veinly

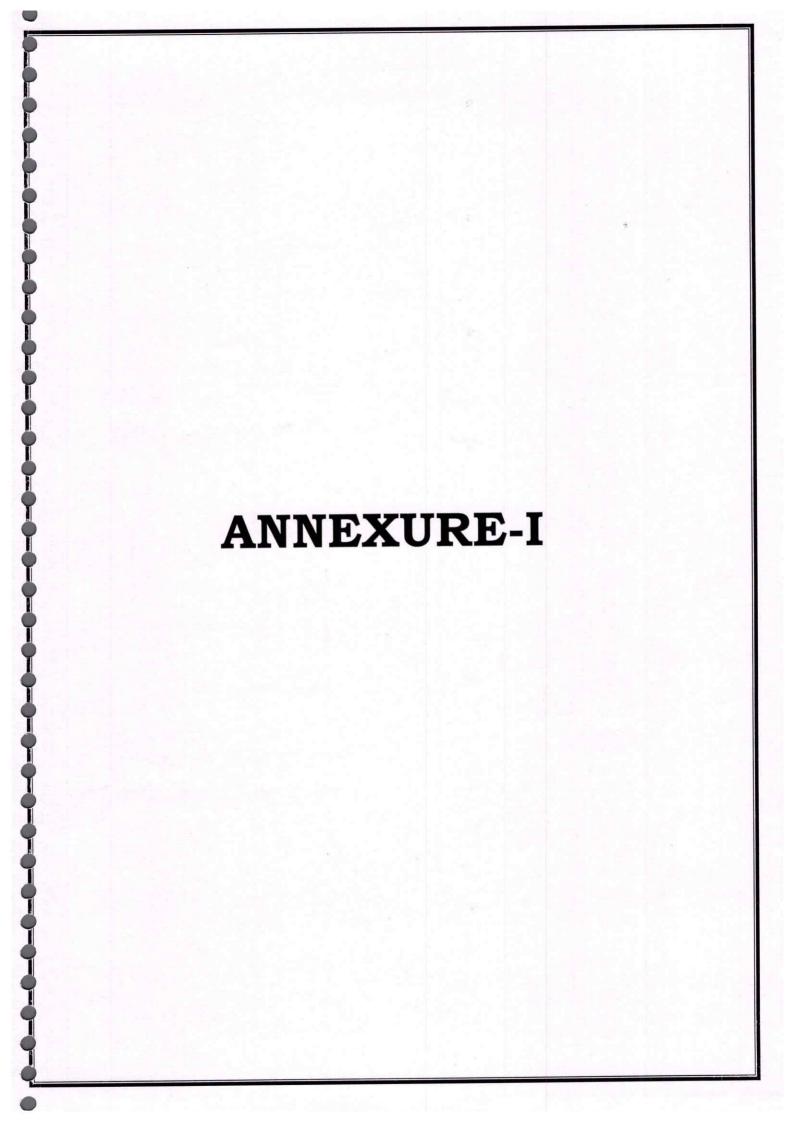
4 Wester Dominy

Sri Golla Veeraswamy, Consultant Geologist & RQP, (RQP / DMG / AP/ 01 / 2021)

the conditions Stipulated indicated in the Mining Plan Approval Letter No. 1208/13/22. Date. 10: 06: 2022.

APPROVED

Dy. DIRECTOR OF MINES & GEOLOGY GOVT OF ANDHRA PRADESH KAKINADA,



GOVERNMENT OF ANDHRA PRADESH
DEPARTMENT OF MINES AND GEOLOGY:: IBRAHIMPATNAM

Memo No.3456/D4/2017

Date.04-04-2022

Sub: Mines & Quarries - Application for grant of Quarry Lease to Latente an extent of 9.75 Hectares in Compt.No.606 of Saralanka Repedamallapuram Beat, Rowthulapudi Section, Yeleswaram Range Kakinada Division, East Godavari District for a period of 20 years fleathra by M/s. Bhaskara Minerals, Mgp: Sri Dwarampudi Veerabhadra Reddy Instructions - Issued - Regarding.

Ref: 1. ADM&G, Rajamahendravaram File No.4769/QL/2016, dt.8.11.2016
2. DM&G Circular Memo No.3861432/P/2020, dt.16.07.2021.
3. Lr.No.EFSO2-15029/61/2018-FCA SEC-PCCF/FCA-3, dt.15.03.2022 from the Prl. Chief Conservator of Forests & Head of Forest Force.

= = =

DM&G.

Guntur addressed to the DFO, Kakinada under copy marked to

The attention of the Deputy Director of Mines and Geology, Kakinada is drawn to the subject and references cited. Through the reference 3<sup>rd</sup> cited, the Prl. Chief Conservator of Forests & Head of Forest Force, Guntur informed that permission was accorded to the user agency to conduct DGPS survey and the data submitted by the user agency has been verified, authenticated and the area assessed is 10.69 Hectares instead of 9.75 Hectares. Hence, re-survey is required to restrict the area to an extent of 9.75 Hectares and accorded permission to the user agency to conduct DGPS resurvey in the proposed Forest area subject to certain conditions mentioned therein (copy enclosed).

Through the reference 2<sup>nd</sup> cited, instructions were issued to all the ADM&Gs, and DDM&Gs in the State with a direction while processing mineral concession application filing in the Forest area, proposals shall submit to the DM&G along with the AMP and strictly adhering the instructions issued earlier and approach with concerned DFO to process the mineral concession applications as the procedure intimated by the PCCF to consider the AMP for approval of the Forest area applications in advance without issuing of Notice to the applicants requesting to submit AMP, EC & CFE.

Therefore, the DDM&G, Kakinada is directed to take further necessary action as per the instructions issued vide reference 2<sup>nd</sup> cited in co-ordination with DFO, Kakinada for joint inspection the precise forest area proposed for mining for taking further necessary action to approved the Mining Plan submitted by the user agency and to furnish the same to PCCF, Guntur for taking further necessary action.

Encl: (As above)

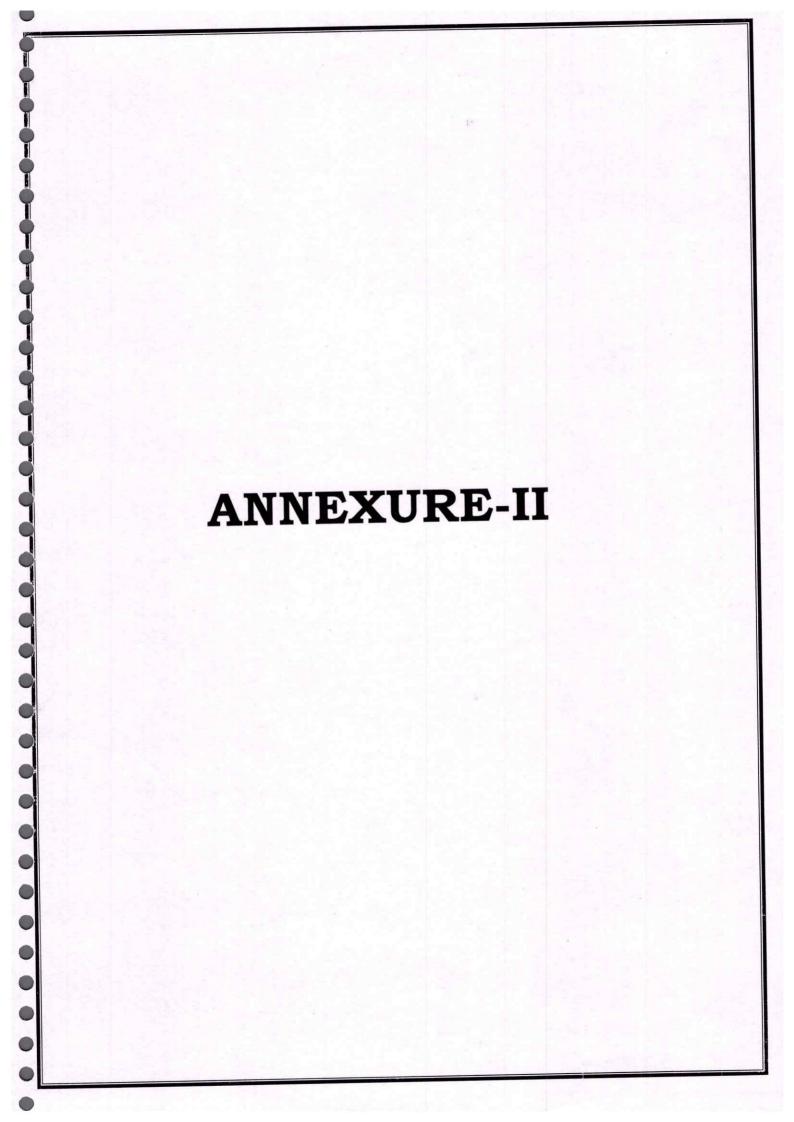
Sd/- V.G.VENKATA REDDY DIRECTOR OF MINES AND GEOLOGY

To
The Deputy Director of Mines and Geology, Kakinada.
Copy to the Asst. Director of Mines and Geology, Rajamahendravaram for favour of information.

// ATTESTED //

for DIRECTOR OF MINES AND GEOLOGY

ó



File No.EFS02-15029/61/2018-FCA SEC-PCCF GOVERNMENT OF ANDHRA PRADESH FOREST DEPARTMENT Office of the Prl. Chief Conservator of Forests Rc.no.EFS02-15029/61/2018-Head of Forest Force, Andhra Prade Guntur -522004 nectorate of Mines & Geo FCA SEC-PCCF/FCA-3, Dated:15/03/2022. Sri N. Prateep Kumar, I.F.S., Prl.Chief Conservator of Forests & Head of Forest Force Sub: APFD -F(C) Act, 1980 - Proposals for diversion of forest land for Taining lease for Laterite over an extent of 10.69 ha in compt.no.606 of Sarafanka RF of Kakinada Division in favour of M/s. Bhaskara Minerals, Kakinada, 56 District - Permission accorded to conduct DGPS re-survey in forest area 4 Andhra Prade Reg. 1. DMG, Ibrahimpatnam, Krishna letter no.19971/R1-3/2013, dated: Ref:-03.12.2014. 2. Rept. of Mg. Partner, M/s Bhaskara Minerals, dated: 01.02.2022 It is informed that, in the reference cited(copy enclosed), the Director of Mines and Geology, A.P., Ibrahimpatnam has forwarded (8) sets of Statutory proforma for diversion of forest land for mining lease for Laterite over an extent of 9.75 ha in compt.no.606 of Saralanka RF of Kakinada Division in favour of M/s. Bhaskara Minerals, Kakinada, EG District. Accordingly, permission was accorded to User Agency to conduct DGPS survey and the data submitted by the User Agency has been verified, authenticated and the area assessed is 10.69 ha instead of 9.75 ha, as recommended by the Director of Mines and Geology, Andhra Pradesh. Hence, resurvey is required to restrict the area to an extent of 9.75 ha as recommended by DMG, AP. In view of the comprehensive guidelines at Chapter-6 (Survey and Investigation) issued by the Government of India, in the letter F.no.5-2/2017-FC, Dt.28.03.2019, under Forest (Conservation) Act, 1980, permission is hereby accorded to the User Agency (i.e., M/s. Bhaskara Minerals, Kakinada, EG District) to conduct DGPS re-survey in the proposed forest area, subject to following conditions. 1. This survey shall not involve any clearing of forest or cutting of trees and operations are restricted to clearing of bushes and loping of tree branches for purpose of sighting.

- The District Forest Officer, Kakinada shall ensure completely that in no case permission is given to User Agency for Protected Areas unless Prl. Chief Conservator of Forests (WL) & CWLW permits it.
- Compliance to the guidelines of Eco-sensitive Zone & Wildlife Corridor should be observed.
- should be observed.

  4. The User Agency (i.e., M/s. Bhaskara Minerals, Kakinada, EG District) shall not cause any violation to the provisions of Forest (Conservation) Act, 1980, 10 Mines of Conservation and A.P. Forest Act, 1967.
- 5. This permission for DGPS survey of the forest land proposed shall be confer any right on the User Agency (i.e., M/s. Bhaskara Minells, Kakinada, EG District) for diversion of the said land for any purpose. To this extent the District Forest Officer, Kakinada shall obtain undertaking from the user agency, before allowing for DGPS survey.
- 6. Survey shall be conducted on both the sides for the linear projects.

The District Forest Officer, Kakinada is requested to deploy staff while undertaking DGPS Re-survey by the Agency duly verifying with Gazette Notification of RF block. He is also requested to offer specific remarks with firm opinion for locating the project inside the forest area, so as to convey the stand of the Forest Department in considering the proposal further, at the initial stage rather than while processing the proposal in Part -II under Forest (Conservation) Act, 1980 at Divisional Forest Officer level.

Further, to avoid repeated errors while taking geo-co-ordinates in DGPS survey by the user agency, care should be taken to follow the methodology for DGPS survey of forest boundaries enclosed to PCCF & HoFF, A.P. Guntur circular no.10/2013 dated: 02.08.2013 (copy enclosed) and further instructions issued by Addl. Principal Chief Conservator of Forests (Res. & IT) in Ref. no. 7577/2016/M & E.1 (IT) Dated: 08.08.2016 (copy enclosed). It is also requested to see that the survey area should be peg marked for stations to record the data.

Further, while submitting DGPS Re-surveyed maps and raw data in CD format, the District Forest Officer, Kakinada shall ensure that CD must contain proper raw data rather than soft copy of the maps and maps must be signed by the field officers.

Encl:- As above

N Prateep Kumar Ifs

Prl.Chief Conservator of Forests & Head of Forest Force

To

The District Forest Officer, Kakinada.

Sri Dwarampudi Veerabhadra Reddy, Mg. Partner, M/s Bhaskara Minerals, D. no. 11-15-3, Achyutaramayya street, Near Bala Tripura Sundari Temple, Ramarao Pet, Kakinada-533004. East Godavari District for information and necessary action. It is requested to approach the District Forest Officer, Kakinada before commencing the DGPS. Re-survey in the presence of forest officials and also mining department officials and not to violate the Forest Acts and their amendments and shall ensure that no violation takes place in the said Forest area. The User Agency is requested to restrict the area to an extent of

**ANNEXURE-III** 

### Government of Andhra Pradesh Forest Department

Rc.no.116/2015-D1, Dt: 31.01.2022.

From Sri.I.K.V. Raju, S.F.S., District Forest Officer, Kakinada Division. Kakinada. Office of the District Forest Officer, Kakinada Division, Kakinada.

M/s.Bhaskara Minerals, #14-8-1 B, Plot No.A1, Bhaskara Estate, Kakinada – 533001,

East Godavari District,

Recharate of Mines a Constant National Assets

Sir,

Sub: APFD - F(C) Act, 1980 - Proposal for diversion of 10.69 ha forest land for mining lease for Laterite in compt. no 10.09 has Sarlanka RF of Yeleswaram Range of Kakinada Division in favour of M/s. Bhaskara minerals, Kakinada, EG District - Mining Action Plan - Requested - Reg.

Ref: 1.PCCF (HoFF), AP, Guntur Rc.No.EFS02-15029/61/2018-FCA SEC- PCCF/FCA-2, Dt:07.08.2020.

2. This office Rc. No. 116/2015-D1; Dt: 30.12.2021.

3.CCF, Rjy Rc:No.2796/2020-D1; Dt:2401.2021 (received this office on dt.29.01.2021).

000

With reference to the above it is to inform that, the Principal Chief Conservator of Forests (HoFF), Andhra Pradesh, Guntur has forwarded the proposals for diversion of forest land for mining lease for Laterite over an extent of 10.69 ha in compt.no.606 of Sarlanka RF of Kakinada Division in favour of M/s. Bhaskara minerals, Kakinada, EG District vide reference 1st cited for field verification.

Accordingly, the final reply report has been submitted to the Chief Conservator of Forests, Rajahmundry circle, Rajamahendravaram vide reference 2nd cited. Further, the Chief Conservator of Forests, Rajahmundry has issued instrctuions to the re-submit the proposals under F(C) Act, 1980 along with mining plan as per GoI, MoEF&CC, Intergraed Regional Office, Vijayawada F.No.4-APC092/2018-CHN/46, dt.29.07.2021.

In this connection, M/s.Bhaskara Minerals, Kakinada is requested to submit the approved mining plan as per instructions issued by the GoI, MoEF&CC, Intergraed Regional Office, Vijayawada F.No.4-APC092/2018-CHN/46, dt.29.07.2021 (copy enclosed).

This is for information and necessary action.

Encl: As above.

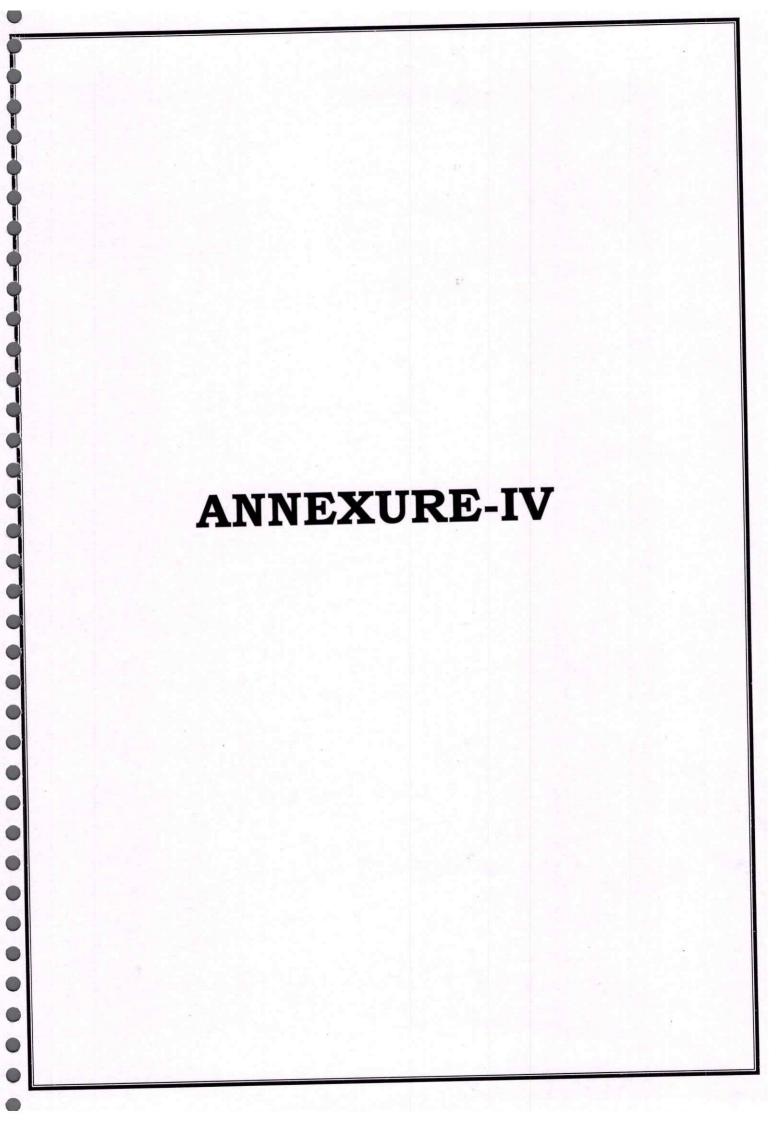
Yours faithfully Sd/- I.K.V.Raju District Forest Officer, Kakinada Division, Kakinada.

45 Tar .

Copy to the Sub-Divisional Forest Officer, Yeleswaram. Copy to the Forest Range Officer, Yelewaarm.

((t.c.b.o:))

Technical Officer 31/1/2022



# **GOVERNMENT OF ANDHRA PRADESH** DEPARTMENT OF MINES AND GEOLOGY CHEMICAL LABORATORY, KURNOOL

# Analytical Report No: 37/2014

Dated:17-12-2014.

Suectorate of M

1. Nature of the sample

: Referred as "Laterite"

2. Locality

: Sy.No .--- of Saralanka Reserve Forest, Yeleswaram Range, Kakinada Division, Sankavaram Mandal,

East Godavari District

3. Applicant

: M/s Bhaskara Minerals,

M/p: Sri Dwarampudi Veerabhadra Reddy

4. Extent

: 9.75 Hectares

5. No. of Samples Received

: Five (5) Samples. (Laterite -ADMG-B1 to ADMG-B5)

6. Received from

7. Samples Collected by

: O/o ADM&G, Rajahmundry on 22-11-20 : O/o ADM&G, Rajahmundry.

8. Ref. No. and Date

: Letter No: 5424/M/2010, Dt: 22/11/2014.

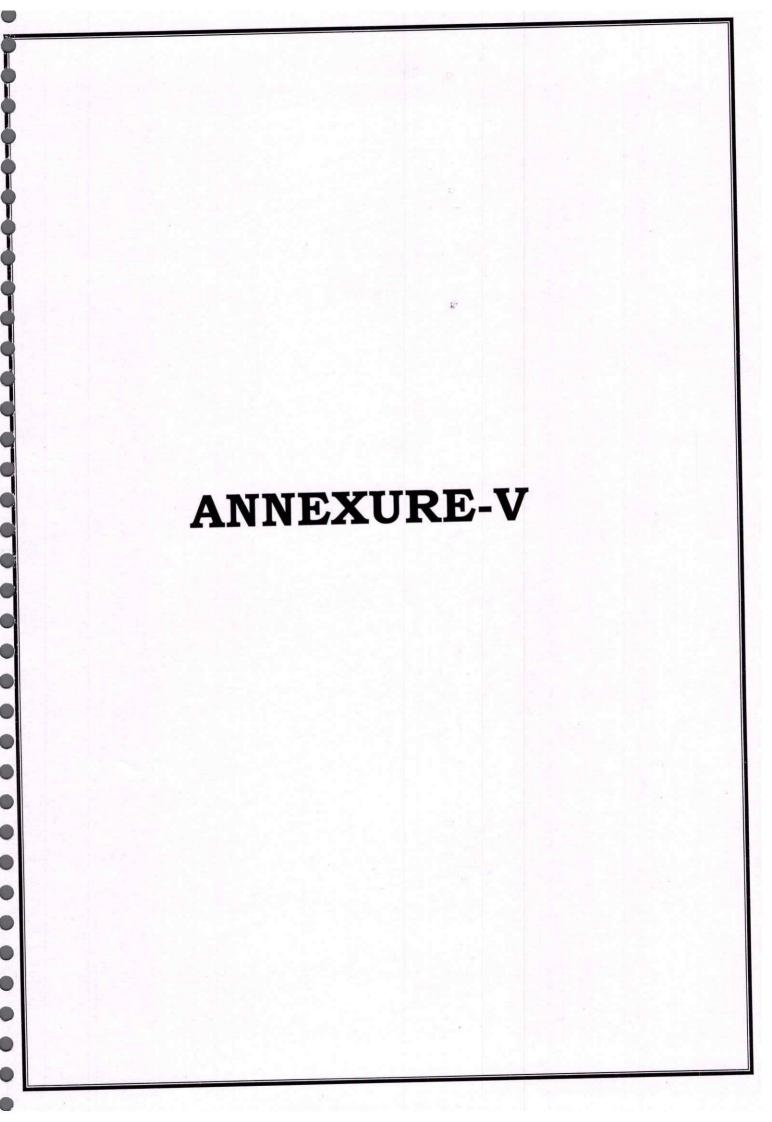
# ANALYSIS ON THE SAMPLES AS RECEIVED

SI.No	Lr.No.	Samples Particulars	Loss On Ignition	'Silica' as SIO <sub>2</sub> %	'Iron' as Fe <sub>2</sub> 0 <sub>3</sub> %	'Al' as Al <sub>2</sub> 0 <sub>3</sub> %
1.	39-1	ADMG - B 1	17.17	19.58	26.80	31.21
2.	39-2	ADMG - B 2	17.07	19.37	26.40	30.80
3.	39-3	ADMG - B 3	17.14	18.41	26.80	31.41
4.	39-4	ADMG - B 4	17.25	19.23	25.20	31.62
5.	39-5	ADMG - B 5	17.21	18.69	26.40	30.39

Klotha ASSISTANT CHEMIST DEPT. OF MINES & GEOLOGY Govt. of A.P. KURNOOL- 518005.

To The Asst. Director of Mines and Geology, Rajahmundry.

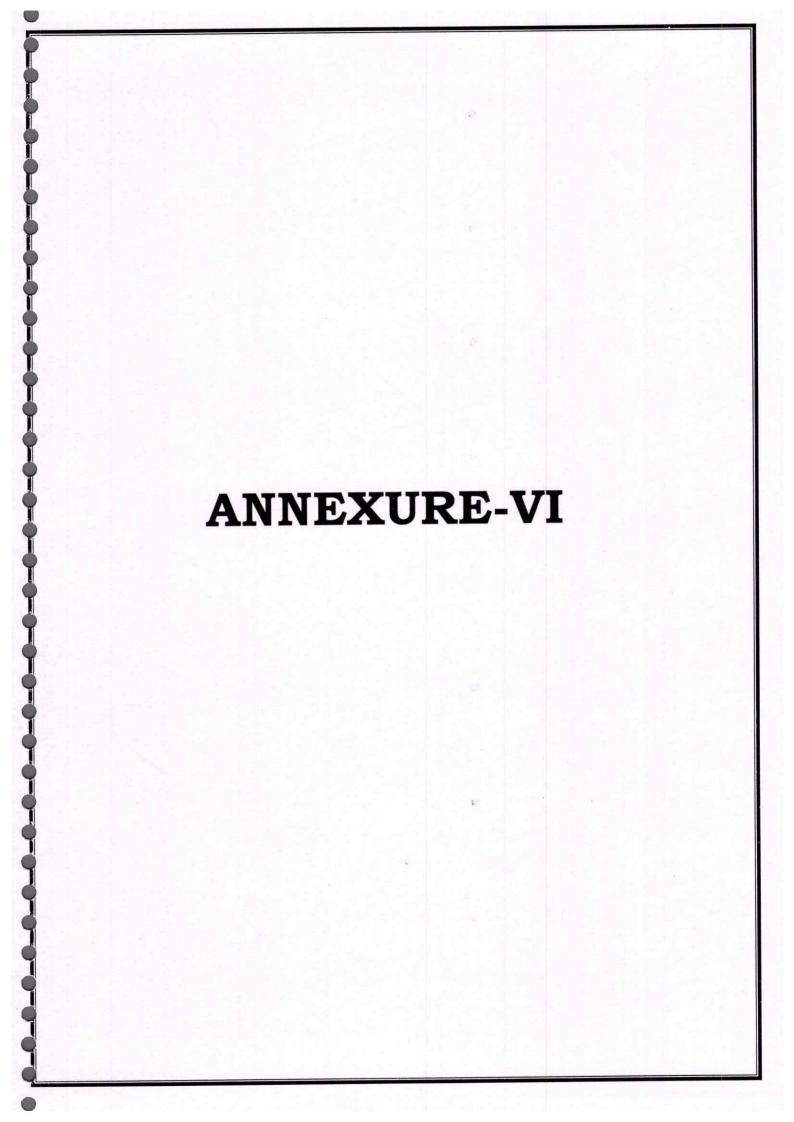
Copy Submitted to the Director of Mines & Geology, Hyderabad for favour of information. Copy submitted to the Dy. Director of Chemistry, Hyderabad for favour of information.



# GOOGLE IMAGE SHOWING THE PROPOSED LEASE PROPOSED AREA.



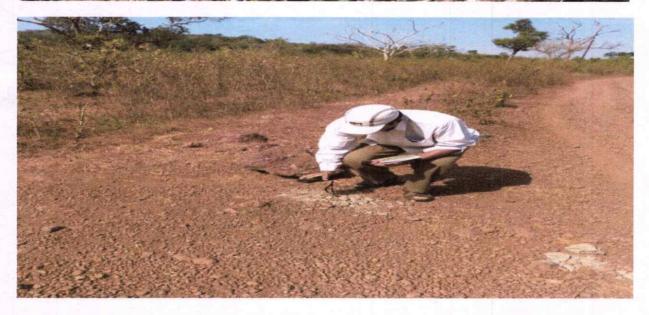
B.P No	LATITUDE	LONGITUDE		
a	N17°26'21.18314"	E82°17'28.23856"		
b	N17°26'18.95040"	E82°17'28.28606"		
С	N17°26'13.87592"	E82°17'28.01978"		
d	N17°26'13.77313"	E82°17'24.06170"		
е	N17°26'14.00263"	E82°17'19.73897"		
f	N17°26'13.92662"	E82°17'16.90363"		
g	N17°26'18.58899"	E82°17'16.80502"		
h	N17°26'21.85050"	E82°17'16.88628"		
i	N17°26'22.05454"	E82°17'20.41256"		
j	N17°26'21.73364"	E82°17'23.88733"		
k	N17°26'21.98847"	E82°17'28.39156"		
A	N17°26'21.05959"	E82°17'28.02905"		
В	N17°26'18.87480"	E82°17'28.08119"		
C	N17°26'14.15033"	E82°17'27.82358"		
D	N17°26'13.95299"	E82°17'24.01955"		
Е	N17°26'14.17912"	E82°17'19.66876"		
F	N17°26'14.15252"	E82°17'17.09747"		
G	N17°26'18.47531"	E82°17'28.05543"		
Н	N17°26'21.53210"	E82°17'17.14937"		
I	N17°26'21.81696"	E82°17'20.45499"		
J	N17°26'21.47716"	E82°17'23.78420"		
К	N17°26'21.65126"	E82°17'28.06467"		

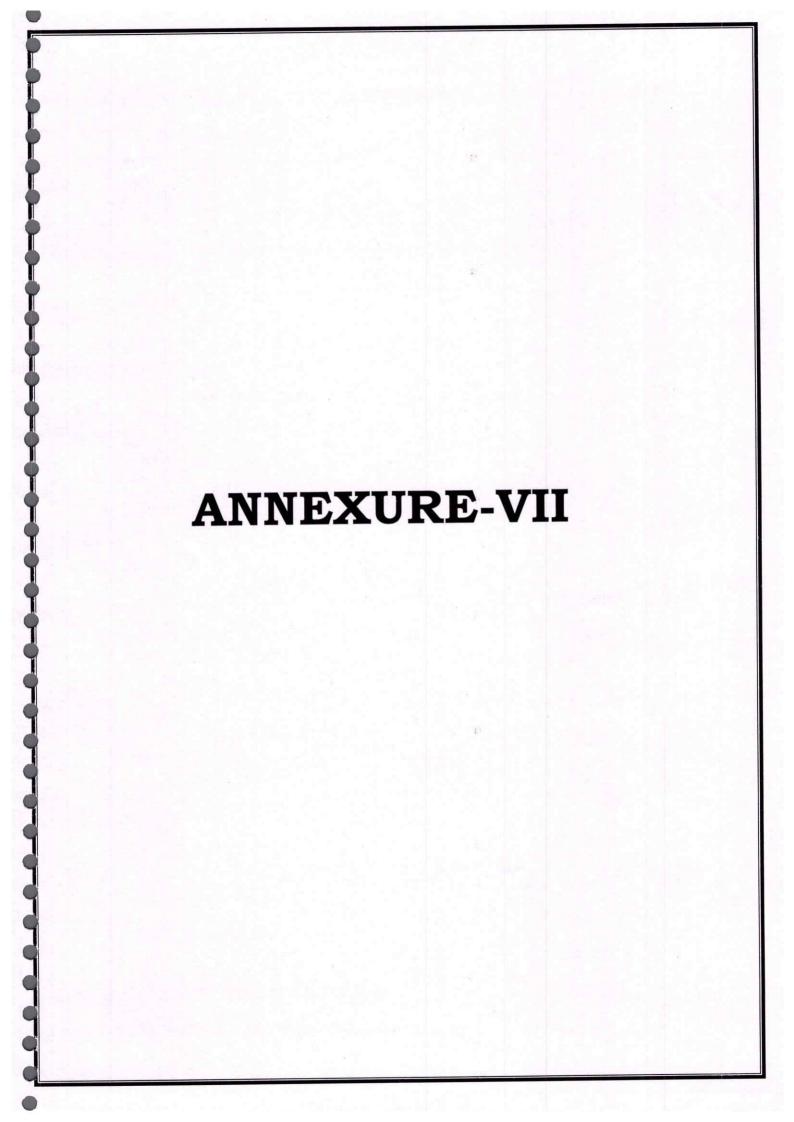


# PHOTOGRAPHS OF THE QUARRY LEASE AREA







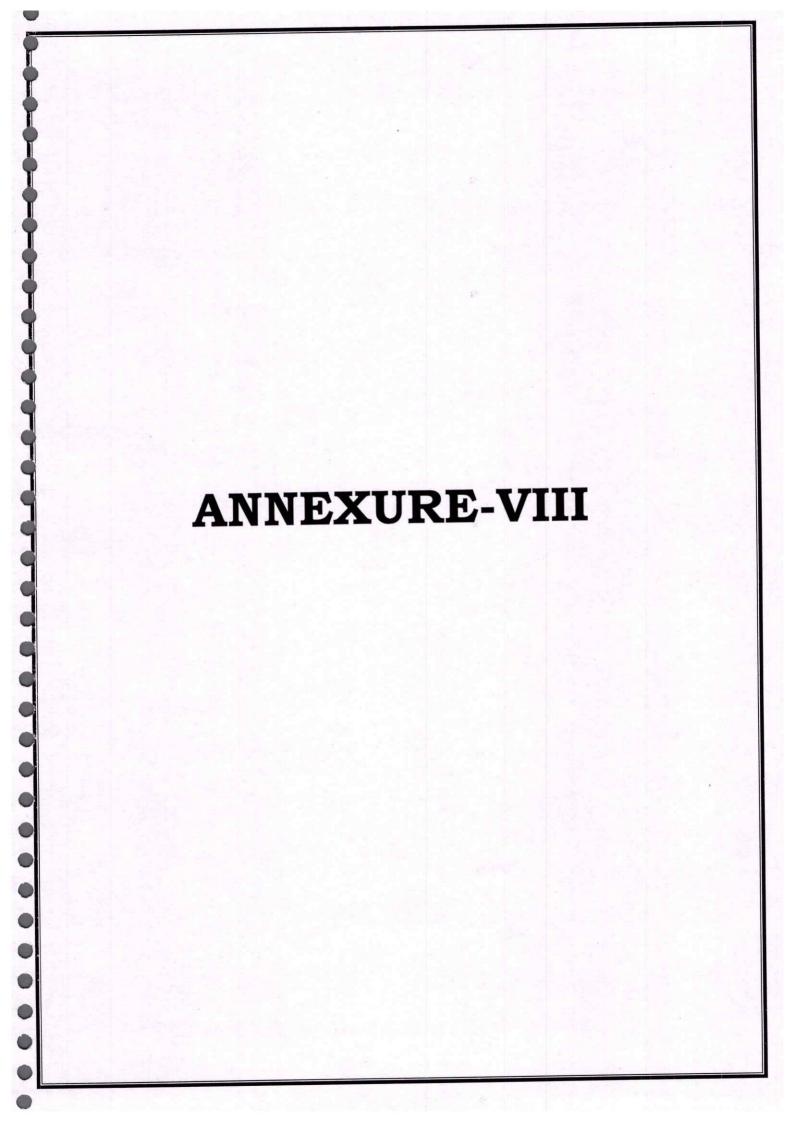


# PHOTOGRAPHS OF THE BOUNDARY PILLARS

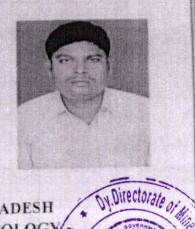












GOVERNMENT OF ANDHRA PRADESH
DEPARTMENT OF MINES AND GEOLOGY

CERTIFICATE OF REGISTRATION

AS QUALIFIED PERSON TO PREPARE MINING PL

[Under Rule 14(2) of Granite Conservation and Development Rules (999)

\* \* \* \* \*

Sri Golla Veeraswamy, S/o. Sri GGunnaiah, H.No:3-25, Eguva Chavalli (Village & Post), Pellakur(M), Nellore (Dist) — 524129, Andhra Pradesh. Whose photograph is affixed herein above, having given evidence of his qualification and experience is hereby granted recognition under rule 14(3) of Grante Conservation & Development Rules, 1999 as Qualified Person to prepare Mining Plans/ Schemes.

Registration Number is :

RQP/DMG/AP/01/2021

This Recognition is valid for a period of 10 years with effect from 28.04.2021 and valid upto 27.04.2031.

This certificate will liable to be withdrawn/cancelled in the event of furnishing the wrong information/documents in the Mining Plan submitted by him.

Place: Ibrahimpatnam Date 28 04.2021

•

•

• • •

• • • •

•

•

•

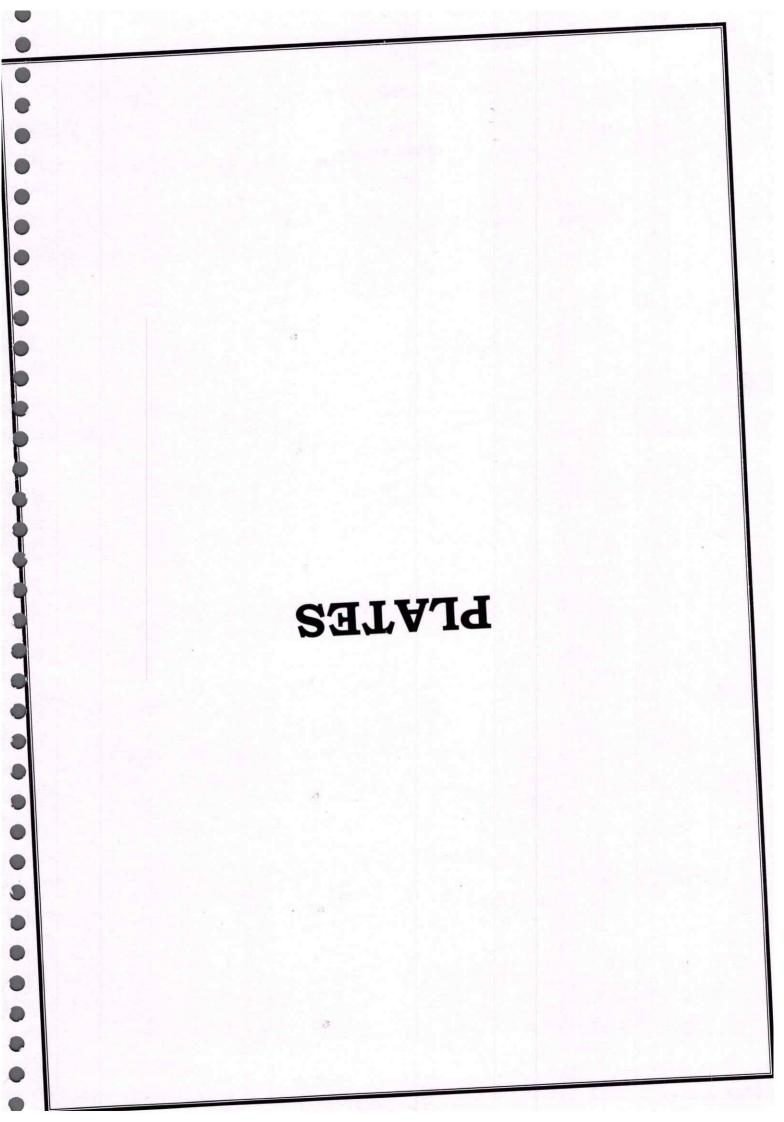
•

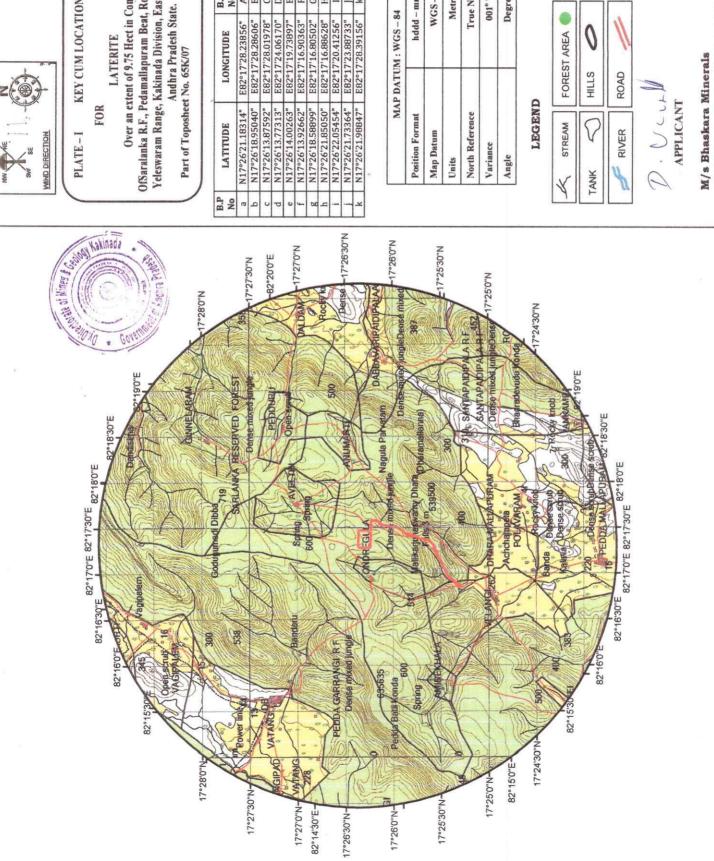
•

If withlest

Director of Mines & Geology

Director of Mines and Geology Govt, of Andhra Pradesh Ibrahimpatham, Vijayawada, Krishna District







# KEY CUM LOCATION MAP

OfSaralanka R.F., Pedamallapuram Beat, Rowthalapudi Section, Veleswaram Range, Kakinada Division, East Godavari District, Over an extent of 9.75 Hect in Comp No.606 LATERITE

Part of Toposheet No. 65K/07

Scale 1: 50,000

No No	LATITUDE	LONGITUDE	B.P No	LATITUDE	LONGITUDE
а	N17°26'21.18314"	E82°17'28.23856"	A	N17°26'21.05959"	E82°17'28.02905"
þ	N17°26'18.95040"	E82°17'28.28606"	В	N17°26'18.87480"	E82°17'28.08119"
0	N17°26'13.87592"	E82°17'28.01978"	3	N17°26'14.15033"	E82°17'27.82358"
p	N17°26'13.77313"	E82°17'24.06170"	Q	N17°26'13.95299"	E82°17'24.01955"
e	N17°26'14.00263"	E82°17'19.73897"	Ε	N17°26'14.17912"	E82°17'19.66876"
Į	N17°26'13.92662"	E82°17'16.90363"	Н	N17°26'14.15252"	E82°17'17.09747"
ьа	N17°26'18.58899"	E82°17'16.80502"	9	N17°26'18.47531"	E82°17'28.05543"
h	N17°26'21.85050"	E82°17'16.88628"	Н	N17°26'21.53210"	E82°17'17.14937"
	N17°26'22.05454"	E82°17'20.41256"	I	N17°26'21.81696"	E82°17'20.45499"
į	N17°26'21.73364"	E82°17'23.88733"	I	N17°26'21.47716"	E82°17'23.78420"
×	k N17°26'21.98847"	E82°17'28.39156"	k	N17°26'21.65126"	E82°17'28.06467"

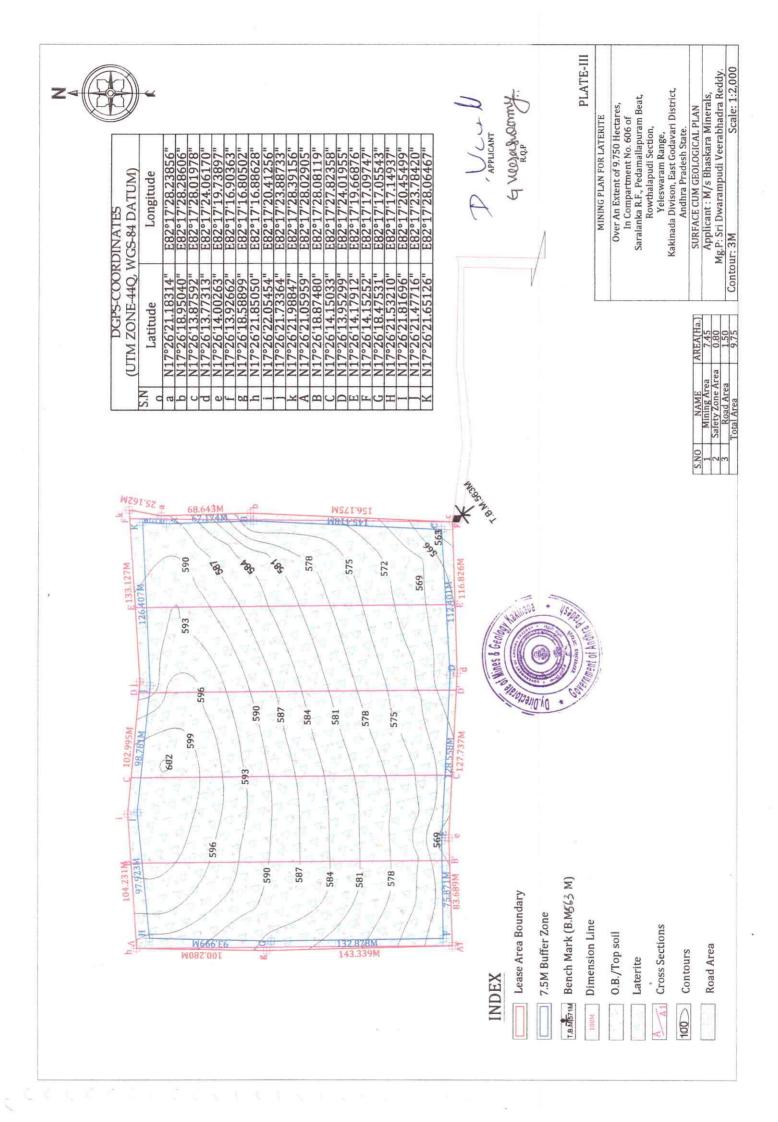
Position Format  Map Datum  Units  North Reference	hddd - mm - ss.s WGS - 84 Metric True North
Variance	001° W
Angle	Degrees

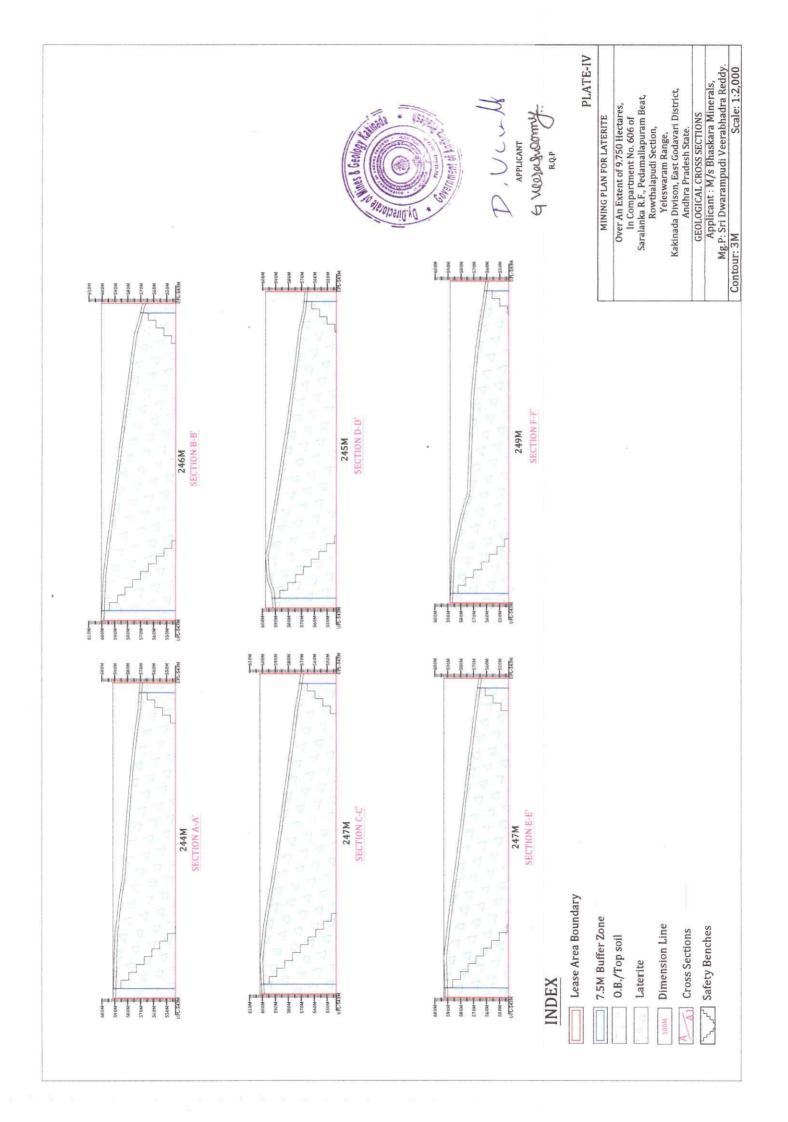
Į.	0	
METAL ROAD	LOCATIONOF AREA	J VILLAGE
AREA 🌑	0	11
FOREST AREA	HILLS	ROAD
STREAM	8	RIVER
X	TANK	H

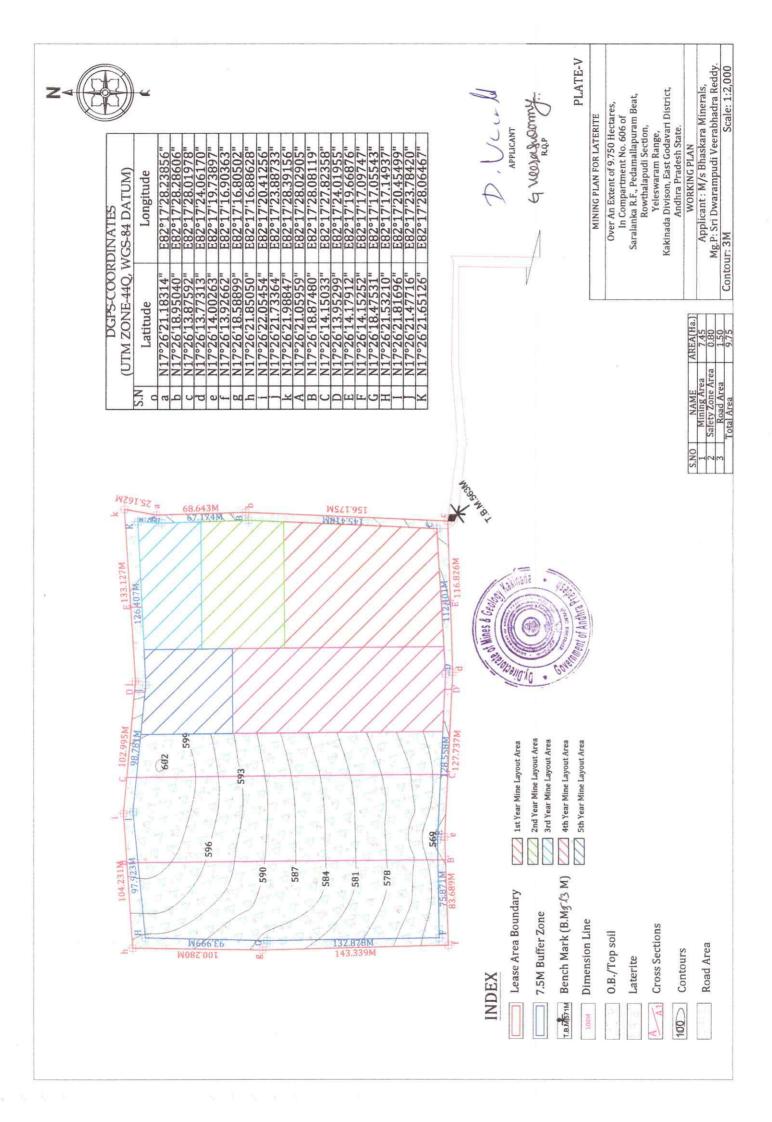


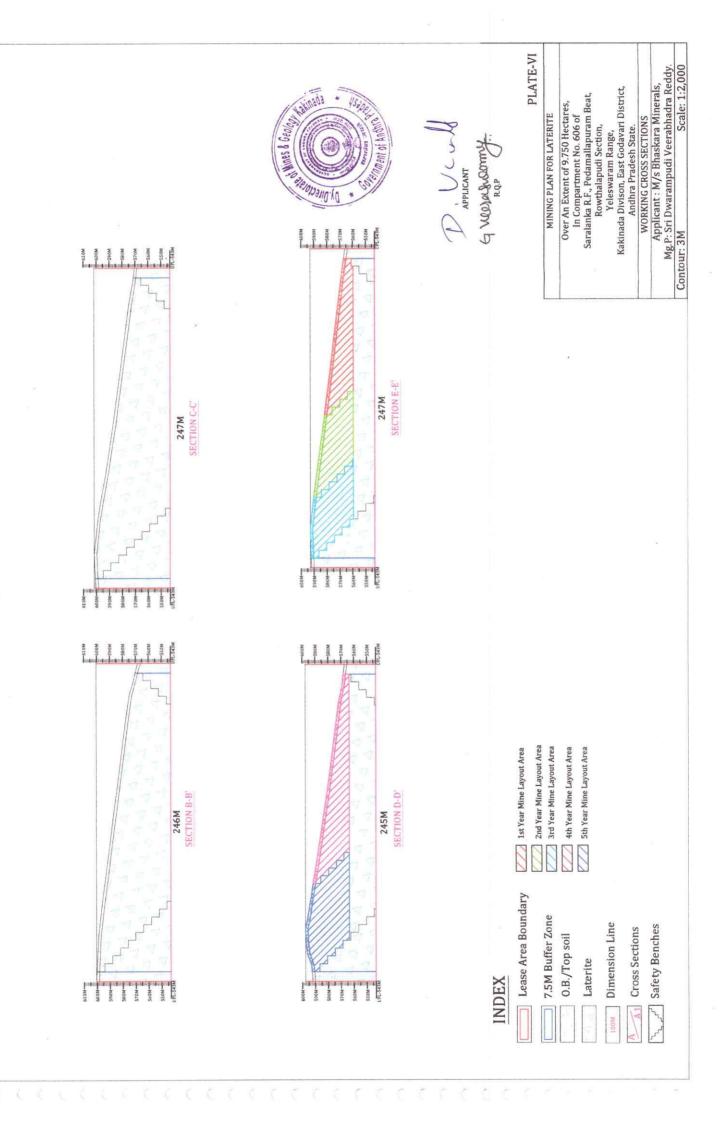
of vectorsooms

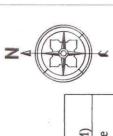
Mg.P: Sri Dwarampudi Veerabhadra Reddy. M/s Bhaskara Minerals



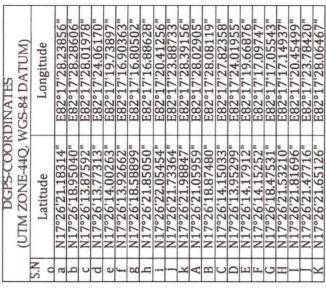








M291.25



- A Mestacomment

PLATE-VII

Yeleswaram Range, Kakinada Divison, East Godavari District, Over An Extent of 9.750 Hectares, In Compartment No. 606 of Saralanka R.F., Pedamallapuram Beat, MINING PLAN FOR LATERITE Rowthalapudi Section,

Mg.P. Sri Dwarampudi Veerabhadra Reddy. ontour: 3M Scale: 1.2,000 CONCEPTUAL PLAN
Applicant: M/s Bhaskara Minerals, Andhra Pradesh State.

Contours	Road Area
100 >	

67.	124M.	m	4	WB	T4:24I		-	4	* o	-
									Z6M	15.9
									Nes & George	
		H							To alt object	2110
									P. G.	10
669		1 1	-	+	\				M C	
602		293					A		C127.73	
	1							$\prod$		
	. 596							569		
		290	587	584	581	578		1	7	
				<u> </u>		1 -	/		83	
M982	.001 99.59	50	97	/ 1	32.87/8 143.339	M				
									2	X
	599	599	596 599	590	596 599 594 584	590 599	590 599 599 599 599 599 599 599 599 599	596 599 599 599 599 599 599 599 599 599	596 590 584 581 581 581	83.689 B E C127737M D G HAND MIRES & COLORS AND MIR



Lease Area Boundary

7.5M Buffer Zone





Bench Mark (B.M.563M)

T.B.MI571M

Dimension Line

O.B./Top soil Laterite





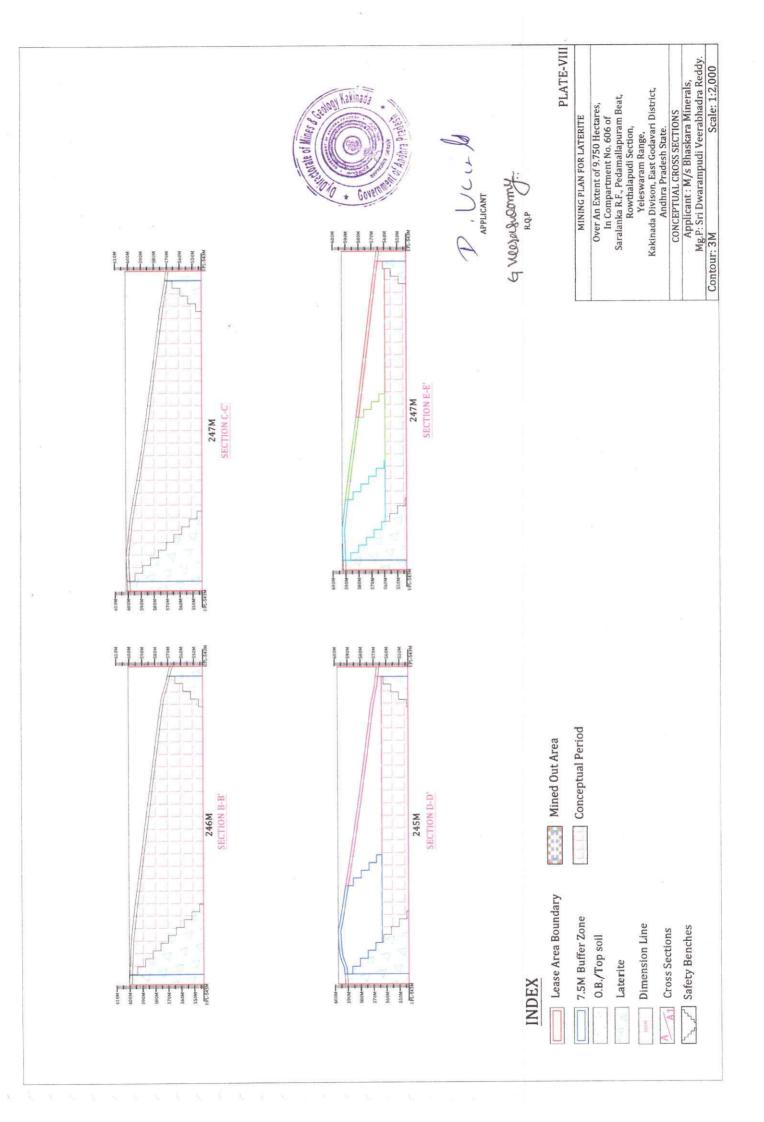


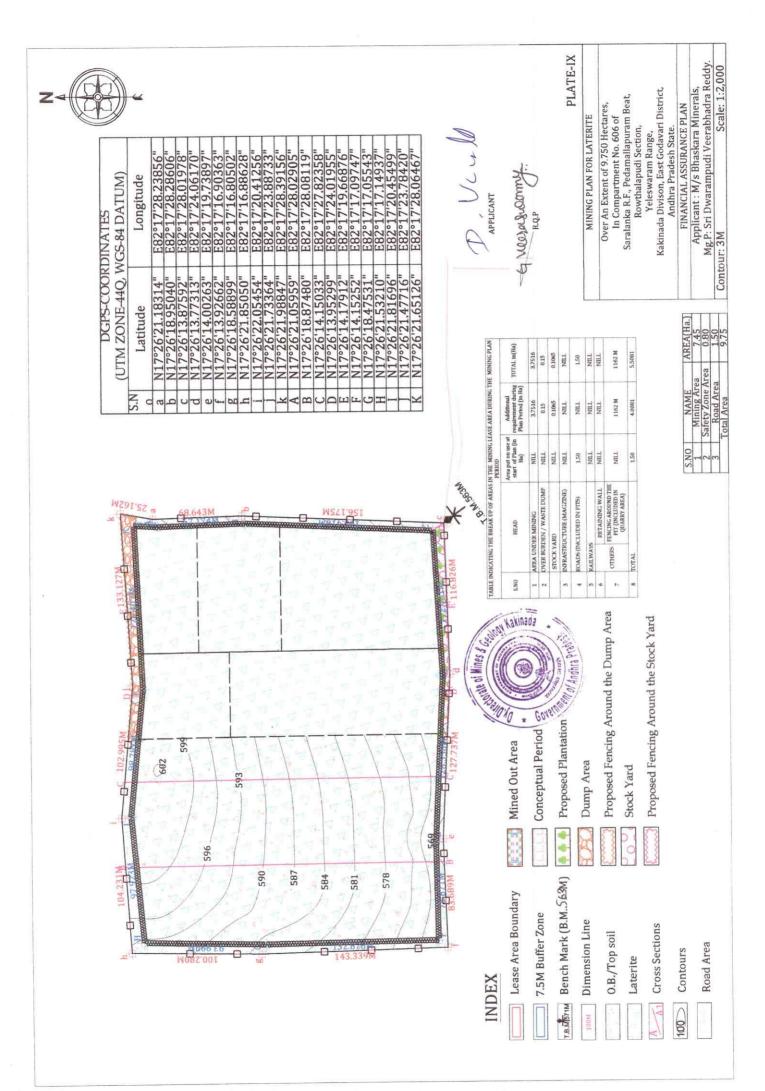


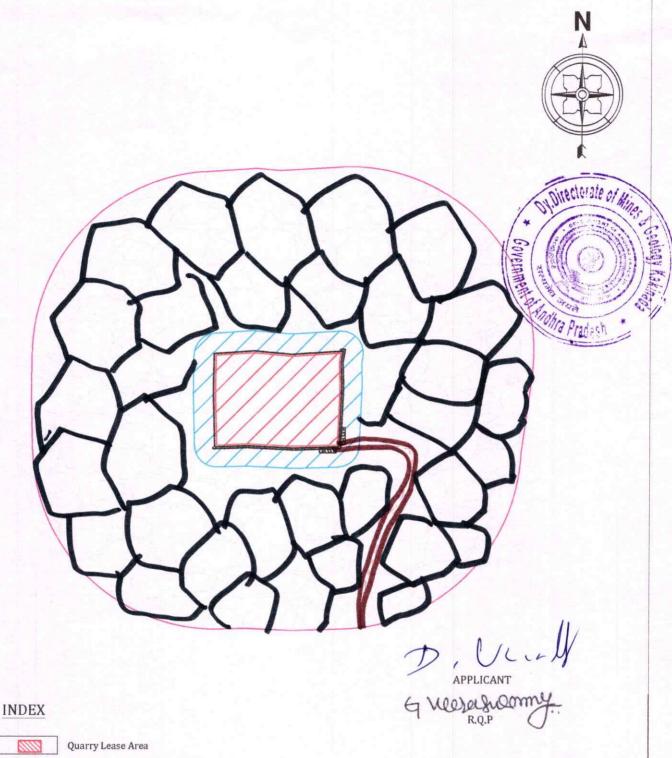
Cross Sections

Yard
Stock
the
Around
Fencing
Proposed ]
53

AREA(Ha.)	7.45	08'0	1.50	9.75
NAME	Mining Area	Safety Zone Area	Road Area	Total Area
S.NO	1	2	3	







9

.

.

0

0

9

9





Buffer Zone of 500M Around the Lease Area



Buffer Zone of 60M Around the Lease Area



Hilly Area





Road



Trench with 1.25 M



Check Dams

PLATE-X

## MINING PLAN FOR LATERITE

Over An Extent of 9.75 Hectares, In Compartment No. 606 of Saralanka R.F., Pedamallapuram Beat, Rowthalapudi Section, Yeleswaram Range, Kakinada Divison, East Godavari District, Andhra Pradesh State.

**ENVIRONMENT PLAN** 

Applicant: M/s Bhaskara Minerals, Mg.P: Sri Dwarampudi Veerabhadra Reddy.

Contour: 3M

Scale: 1:10,000

