

# MITIGATIVE MEASURES PLAN

*For Protection of Forest Area, Located adjacent to the Proposed  
Mining Lease for Black Granite*

Over an extent of 7.57 Ha, Located in Compartment Nos. 387 of Allamadugu R.F & Beat,  
Karvetinagar Range and Chittoor East Division, A.P.

## Applicant

M/s Sree Suryam Granites,  
Prop: Smt P. Sandya Vani,  
D.No.4-2016/10,  
Siddarta Nagar,  
Opp: PVKN Degree Collage  
CHITTOOR, 517001

## PREPARED BY

**Y.THIMMAIAH,**

Cell:9440053509

**Consultant Mining Geologist**

61205, Indu Fortune Fields Gardenia,

13<sup>th</sup> Phase, K.P.H.B. Colony

HYDERABAD - 85.

*Under Points 3 & 5 of CF*

- 163 -

## MITIGATIVE MEASURES PLAN

*For Protection of Forest Area, Located adjacent to the Proposed Mining Lease Area of Black Granite*

Over an extent of 7.57 Ha, Located in Compartment Nos. 387 of Allamadugu R.F & Beat, Karvetinagar Range and Chittoor East Division, A.P.

Applicant: M/s Sree Suryam Granites

### 1.0 INTRODUCTION:

Smt P. Sandya Vani, proprietor of M/s Sree Suryam Granites has applied for grant of Mining Lease for Black Granite over an extent of 7.57 Ha i.e. 5.51 Ha for Mining, 1.65 Ha for Safety Barrier and 0.41 Ha for approach road to the mine workings in Compartment No. : 387 of Allamadugu R.F & Beat, Karvetinagar Range and Chittoor East Division, A.P. After due inspection of the proposed mining site by the Officers of the Forest Department, the applicant is requested to submit the Mitigative Measures plan to protect the forest area, located adjacent to proposed mining lease. Hence this report is prepared under 3 & 5 of CF.

### 2.0 GENERAL:

- 2.1 Name & Address of the Applicant: M/s Sree Suryam Granites,  
Prop: Smt P. Sandya Vani,  
Cell:9440779984  
D.No.4-2016/10, Siddarta Nagar,  
Opp: PVKN Degree Collage  
CHITTOOR, 517001
- 2.2 Status of the Applicant: Proprietary Firm
- 2.3 Minerals: Black Granite (Dolerite)
- 2.4 Name & Address of RQP: Y.Thimmaiah (: RQP/HYD/087/92/A),  
(R.Q.P: Recognized Qualified Person for mine plans)  
61205, Indu Fortune Fields Gardenia,  
13<sup>th</sup> Phase, K.P.H.B. Colony  
HYDERABAD - 85, Cell: 9440053509
- 2.5 Details of the Area:
- |                    |  |
|--------------------|--|
| 1) State           | : Andhra Pradesh                                       |
| 2) District        | : Chittoor   |
| 3) Division        | : Chittoor East  |
| 4) Range           | : Karvetinagar,  |
| 5) R.F & Beat      | : Allamadugu,  |
| 6) Compartment No. | : 387  |
| 7) Extent          | : 7.57 Ha<br>(Mining: 5.51+S.Zone:1.65Ha+Road:0.41 Ha) |
| 8) Ownership       | : Forest Area  |

The applied M.L area is located between the Latitude of  $13.3742270^{\circ}$  -  $13.377161^{\circ}$  and Longitude of  $79.306045^{\circ}$  &  $79.314582^{\circ}$  on Indian Topo Sheet No. 57 O/7. The applied area is located at a distance of 1.0 km from the village Pallalu due North and the village is located at a distance of 2km from Allamadugu due North. The village Allamadugu is located between Chittoor and Karvetinagar at a distance of 30 km from Chittoor. Cart track is available from the village Pallalu and to the Forest Boundary. B.T. is connecting to the village Pallalu to the Chittoor via Allamadugu. Chittoor is located on N.H-40 between Bangalore. To reach the applied M.L. area, 600 m length and 6 to 7m width of the Forest land (0.41 Ha) has been applied for approach road formation from Revenue land. Allamadugu is the nearest place to the applied M.L. area for primary facilities like electricity, primary school, post office and Bus services. Chittoor is the nearest place for other facilities like Market, Higher Education, Hospitals and Railway Station. The nearest airport is located at Thirupati and the nearest seaport is located at Chennai.

### 3.0 GEOLOGY :

**3.1 Topography:** The proposed mining lease area and the approach road belong to a hilly terrain. Applied area has lowest level on SE side i.e. 260 MSL and it is gradually raising towards NW up to 490m RL. There is a maximum relief of 230 m from NW to SE within the applied Area. Due to Dolerite dyke (Black Granite) intrusion, the area rises to a height 150m (490-340m) from NW to SE of the formation within the mining area. Even though, the applied mining area and the proposed approach road belong to R.F., it does not have much vegetation except scattered bushes and thorny shrubs on the slopes. There are no prominent natural drainage channels within the applied area. But seasonal watercourses are running on slope of the area towards north & South. The surface rainwater of the area will collect in the nalas, located at foothills and finally, it joins to Kundeti Vank, located at 3km from the forest land on eastern side.

**3.2 Regional Geology:** The Chittoor District forms with part of Indian Peninsular gneiss, which has remained stable since formation of the crust. The Peninsular gneiss is exposed in the most of the district.

**3.3 Local Geology:** The area represents a peninsular gneissic complex comprising gray granites with Dolerite dyke intrusions. A Dolerite is intruded through the gneiss in E-W trend and formed as a hill and the Dolerite (Black Granite) is exposed on top of the hill. No shear zone or faults are noticed in this area. So, the sheet rock is well exposed without any O.B. over length of more than 900m and to a width of 30m (average). The black granite is exposed at higher elevation of the hill top and the float & scree material of Dolerite is covering the slopes on Southern & Northern side of the area. Dolerite (Black Granite) is the fine to medium grain size. It is hard and compact and Steel gray to black in colour.

#### 4.0: MINING:

4.1 Method of Mining: Granite Mining will be carried out by open cast method with the help of Machinery like, an excavator, tippers, Jackhammer Drilling and wire saw cutting Machines. The Excavators will be used to remove the granite boulders and Overburden from the lease area and waste will be loading in to trucks. The waste will be shifted to proposed dump yard, located on SE of the applied area, over an extent of 0.016 Ha after leaving 7.5m barrier from the boundary line. The sheet rock of black granite will be cut in to blocks with the help of wire saw cutting machine. Well Dressed dimensional blocks will be loaded in to trucks and transportation to market from mine site. The proposed quarry workings will cover an area of 3.6984 Ha in applied mining lease by the end of the life of the mine.

#### 5.0 IMPACT ASSESSMENT OF MINING:

5.1 Float: The quarry workings will be carried out on top of the hill by open cast mining. Because, the mining area is steeply sloping towards North and South, there are chances for roll down the excavated material from workings to beyond the lease boundaries. So, there are chances for damage of plants/ trees of the forest area, located adjacent lease area due to float material of Quarry workings.

5.2 Dust Generation: Due to haulage of Granite and Waste rock by heavy mining machinery through mine road, the dust generation will be on large scale. There are chances for scattering of the dust to adjacent forest area. Due to the dust generation, the plant / tree growth of adjacent forest will be hampered.

5.3 Sound & Noise pollution: For Granite mining, heavy machinery like excavators, tippers, compressor and jackhammers will be used. There are chances for noise pollution from mining machinery. Due to noise pollution, the flora and fauna of adjacent forest will be troubled.

#### 6.0 MITIGATIVE MEASURES TO BE TAKEN BY THE MANAGEMNT/ LEASSEE.

6.1 Arrest of Float Material from Working Mine: It is proposed to build a retaining wall in 7.5m barrier from the mining lease boundary on four sides to arrest the float material within the lease area. The retaining wall will be constructed around the lease area over a length of 1870 m, to a width of 1.5 m and to a height of 1m.

To stop the water prolusion from mine workings and waste dump, It is proposed to cut a garland drain around the retaining wall (after leaving safety barrier) over al length of 1890 m to a width of 1m and to a depth of 0.5 m and the excavated muck will be formed as a bund on outside the trench over an area of 1890m<sup>2</sup> as shown on plate-2. Due to retaining wall and trench cutting, the float material comes from waste dump or mine workings will be arrested within the lease area and the adjacent forest will be protected from float material.



6.2 Suppression of the Dust: Dust generates from mining activity i.e. at the time of transportation of the material by heavy mining machinery will be on large scale. This dust generation will be suppressed by water spraying on mine roads at regular interval before going for transportation of the material from quarry workings. The dust generation will also be suppressed by developing green belt on either side the mine road and as well as in 7.5m barrier. The plantation will be taken up on both sides of the proposed road over a length of 600 m and to a width of 1m and it gives an area of 0.1200 ha of green belt. The green belt will also be developed in 7.5m barrier ( i.e. the safety zone which has to be maintain between the mine workings and the lease boundary) over an extent of 0.5760 Ha.

6.3 Control of Sound / Noise Pollution: If all mining machinery works together at one place at the same time, the noise, generates from these mining equipment will be more than the permissible limits. So, it is advised the applicant to operate the equipment in different timings at different places to control noise pollution and to maintain the Sound pollution within the permissible limits.


ENCLOSURES:

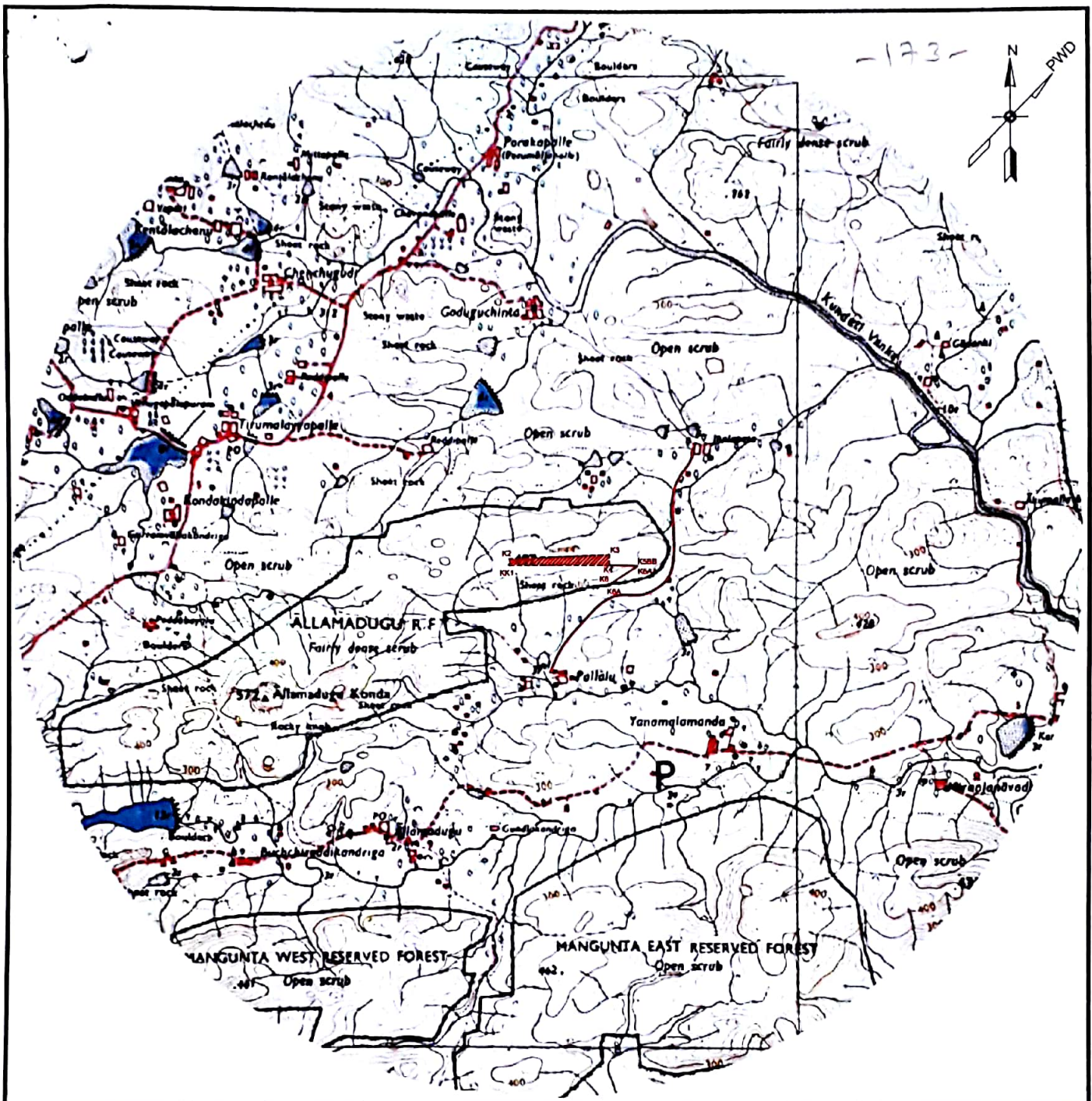
Annexure-I: Pictures of the Applied Mining Lease Area

Plat-1: Surveyed Sketch for Mining/ Quarry Lease

Plate-2: Location plan (1:50,000)

Plate-3: Plan showing the Meditative Measures, to protect adjacent forest from proposed mining activity (1: 2000 Scale).

  
Y. THIMMAIAH  
Res: RQP/Hyd/087/92/A



# INDEX

	APPLIED M. L. AREA IN R.F.
	CONTOUR LINE
	PUBLIC ROAD
	WATER COURSE
	TANKS
	VILLAGES
	FOREST LAND
	CULTIVATION LANDS
	5Km RADIUS

CERTIFIED THAT THE PLAN IS CORRECT

SIGNATURE OF APPLICANT

SIGNATURE OF THE R. Q. P

## MITIGATIVE MEASURE PLAN

Over an extent of 7.57 Ha, in Compartment Nos.387, Allamadugu R.F & Beat, Karvetinagar Range of Chittoor East Division, A.P.

## LOCATION CUM KEY PLAN

APPLICANT : M/s SREE SURYAM GRANITES

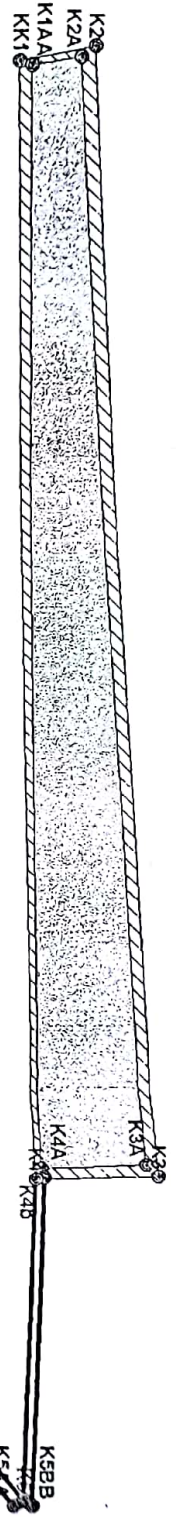
SCALE : 1 : 50,000

T.SHEET No. 57 / O / 7

PLATE- 1



Map Showing the Applied Mining area in Compt. No.387, Allamadugu Reserved Forest, Allamadugu Beat, Karvetnagar Range of Chittoor East Division.



S/no	Name	Easting	Northing	Elevation	GlobalLat	GlobalLong
1	K4b	317479.997688	1479375.401860	329.188	13.376339	79.314521
2	K4A	317472.387115	1479372.697840	329.986	13.376314	79.314451
3	K4	317481.058579	1479368.349300	325.700	13.376275	79.314531
4	KK1	316572.598620	1479352.135000	481.376	13.376072	79.306145
5	K6A	317491.97879	1479146.470660	259.744	13.374270	79.314646
6	K6	317485.107340	1479146.613500	261.280	13.374271	79.314582
7	K5B	317742.072810	1479363.987330	295.107	13.376252	79.316941
8	K5AA	317742.081472	1479349.040180	295.011	13.376116	79.316942
9	K5	317736.886077	1479356.588350	297.275	13.376184	79.316894
10	K3A	317469.447196	1479457.047260	369.666	13.377076	79.314418
11	K3	317478.511288	1479466.386520	366.720	13.377161	79.314501
12	K2A	316570.258467	1479400.206660	483.313	13.376507	79.306121
13	K2	316562.095989	1479410.642810	478.934	13.376600	79.306045
14	K1AA	316575.717329	1479362.065520	481.133	13.376162	79.306174

Mining area	5.51 Ha
Safety Zone area	1.65 Ha
Road area	0.41 Ha
Total area	7.57 Ha

For SREE SURYAM GRANITES

P. Sandhya Devi  
Forest Section Officer  
Kollagunta  
PROPRIETOR

Forest Range Officer  
Karvetnagar.

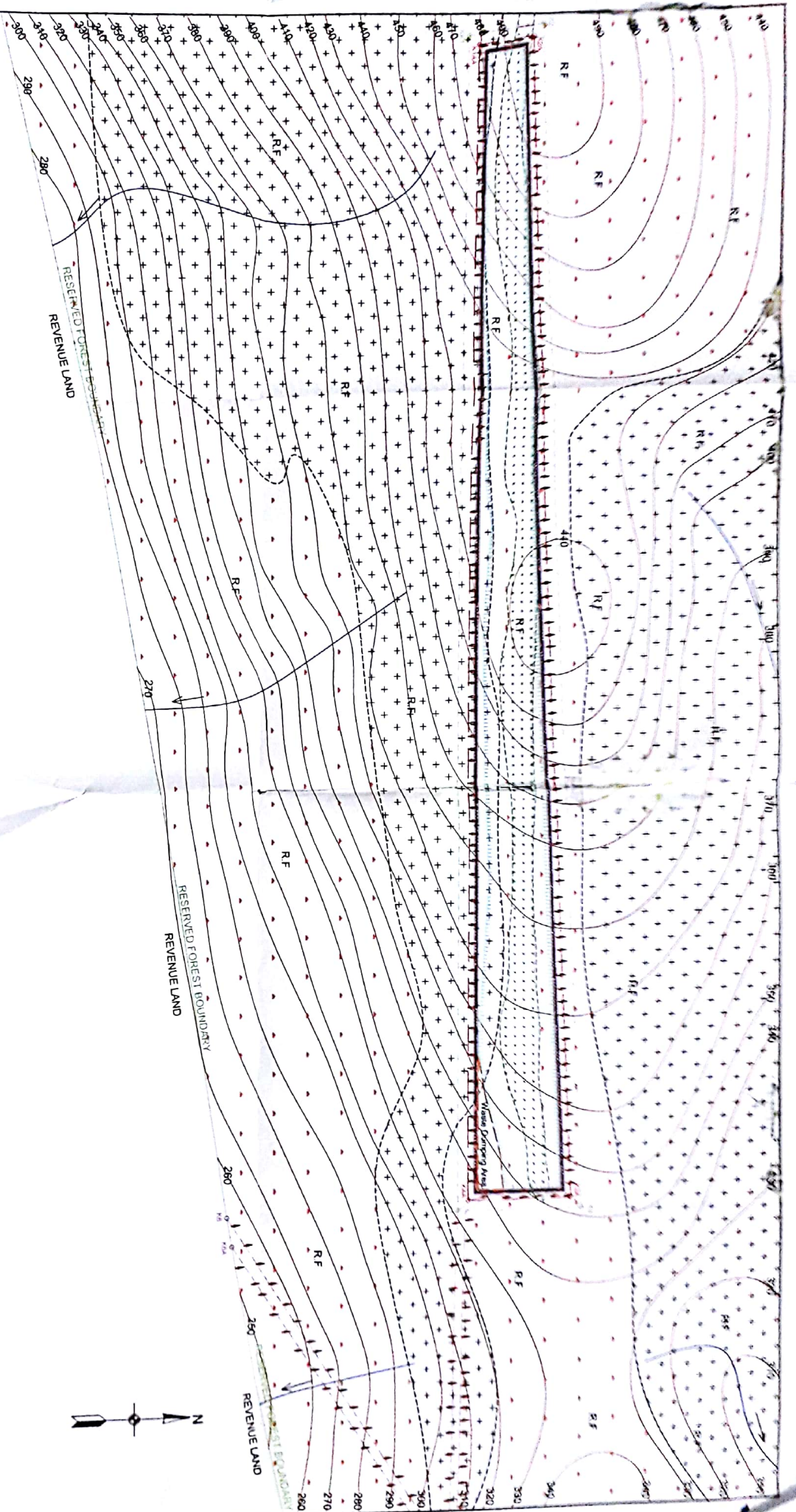
The DGPS/GNSS/ETS data is only Verified, the absolute Locations of Points shall be Verified by the concerned Field officers only



**Legend**

- DGPS POINTS
- ROAD AREA
- SAFETY ZONE AREA
- MINING AREA





# Details of the Area Applied For Mining Lease

	Mining Area	= 5.51 Ha
	Safety Zone Area	= 1.85 Ha
	Road Area	= 0.41 Ha
Total Applied Area = 7.77 Ha		

## Proposed Land Use Pattern

	Quarry workings	= 3.6994 Ha
	R. Wall & G. Drain	= 0.4695 Ha
	Plantation	= 0.6960 Ha
	Waste Dump	= 0.1060 Ha
	Approach Road	= 0.4160 Ha
Total Land Usage = 5.3859 Ha		

	Forest Boundary
	Contour
	7.5m Barrier
	Soil With Scree
	Black Granite
	Grey Granite
	Seasonal Nala

SIGNATURE OF APPLICANT

SIGNATURE OF THE R.O.P.

CERTIFIED THAT THE PLAN IS CORRECT

## MITIGATIVE MEASURE PLAN TO PROTECT FOREST AREA ADJACENT TO THE PROPOSED MINING LEASE OF BLACK GRANITE

Over an extent of 7.77 Ha in Compartment No. 287, Alamedu H.T. & Block  
Kaveri Range of Chittoor East Division, A.P.

APPLICANT: MRS. SREE SURYA GRANTHES

SCALE = 1 : 2000

CONTOUR INTERVAL - 10m

PLATE 3