

MINING PLAN FOR COLOUR GRANITE

Over an extent of 2.4 hect in S.No. 1 of Addukonda (V), Tekkali (M),
Srikakulam District.

Applicant

M/s Sri Veknateswara Granites,

D.No: 1-342, Rotary Nagar,
Tekkali-532 201,
Srikakulam Dist.



PREPARED BY

Y. THIMMAIAH,

(RQP / DMG / HYD/10 /2001),
102, Kavya Deluxe Apartments,
Madhuranagar
HYDERABAD - 38.

APPROVED

INCONFIRMITY WITH: G.C.D.R. 1999


CERTIFICATE

This is to certify that the provisions of Granite Conservation & Development Rule – 1999 & Director of Mines & Geology, Govt. of A.P guidelines have been observed in mining plan preparation for Colour Granite over an extent of 2.4 hect in S.No.1 of Addukonda (V), Tekkali (M), Srikakulam Dist, A.P. of M/s Sri Venkateswara Granites and they agreed to implement the same.

The provisions of Mines Act, Metalliferrous Mine Regulation as applicable has been observed in the mining plan. However any specific permission if required, the applicant will approach all such authorities including Director General of Mines Safety.

Certified further that the information furnished in the Mining Plan is in agreement with that supplied by applicant.


Signature of the Applicant


Signature of RQP
Y. S. SURESH
Reg: 1234567890123456



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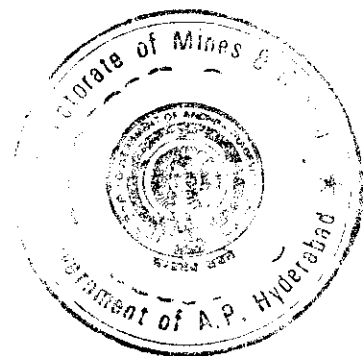
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This Mining Plan is Approved subject to the
Conditions/Stipulations indicated in the

Mining Plan Approval Letter No.....
36.160/mf.I/02...., dated 6.1.2003

**MINING PLAN FOR COLOUR GRANITE IN S.NO.1 OF ADDUKONDA (V),
TEKKALI (M), SRIKAKULAM DISTRICT**

INTRODUCTION: The Director of mines & Geology has granted the P.L. for Colour Granite over an extent of 2.4 Hectares in above said area, in favor of M/s Sri Venkateswara Granites, vide Proceedings No. 39104/R1-3B/98, dt.26-7-2000 for a period of 2 years. Accordingly the Asst. Director of Mines & Geology has executed the P.L. vide Proceedings No. 4967/Q/2000, dt.21-12-2000. After prospecting M/s Sri Venkateswara Granites have applied for grant of Q.L. for the same area. So, M/s Sri Venkateswara Granites was requested to submit AMP within 6 months through the Notice No.32288/R1-3/2002, dated: 1-10 -2002 (Ref: Annex- I).

I GENERAL:

- a) Name & Address of the Applicant: M/s Sri Venkateswara Granites,
D.No: 1-342, Rotary Nagar,
Tekkali -532 201,
Srikakulam Dist (A.P).
- b) Status of the Applicant : Partner Ship firm
- c) Type (s) of Granite : Colour Granite
- d) Period for which the Quarry Lease is required: 20 years
- e) Name & Address of RQP : Y.Thimmaiah (RQP / DMG / HYD/10 /2001),
102, Kavya Deluxe Apartments,
Maduranagar,
Hyderabad- 38, Ph: 3733478 & 3735373
- f) Name & Address of the Prospecting Agency: This area is being operated by the applicant company in P.L Period and produced about 100m³ of granite blocks from two exploratory pits.

II LOCATION AND ACCESSIBILITY:

(a) Location:

The area is located on Topo Sheet No. 74 / B / 2 (1:50,000 Scale) at the junction of Latitude of 18° 37' 38" & Longitude of 84° 14' 10" and location plan is enclosed as Plate-1.

APPROVED
Dr. P. Dayasankar
Dr. P. DAYASANKAR
JOINT DIRECTOR
DEPT. OF MINES & GEOLOGY
GOVT. OF A.P. HYDERABAD.

(b) Details of the area:

District & State	Mandal	Village	Sy. No / Plot No. / Block No.	Area in hectares	Type of Land	Ownership & occupancy
Srikakulma & A.P	Tekkali	Addukonda	1	2.4 Hect	Govt. Land	P.L. Granted to Applicant

(c) Infrastructure:

i) The area is located at a distance of 2.5km from the village Tekkali due NW. Tekkali is located on N.H-5 at a distance of 50km from Srikakulam towards Bhubaneshwar. The area can be approached by a metal road to a distance of 2km from the Tekkali and then a 0.5km length of cart track will connects to the area from this metal road. Tekkali is the Mandal head quarters and it is the nearest place for School, Market and for Hospital, located at 2.5km from the subject area. The nearest Railway Station is Naupada, located at 8km from the P.L. area on South Eastern Railway line between Srikakulam and Palasa. The nearest airport and seaport is located at Vishakapatnam. Electricity is available in the vicinity of subject area. The subject area is located on top of the hill and it is a rocky terrain. So, the area has dose not consists any vegetation.

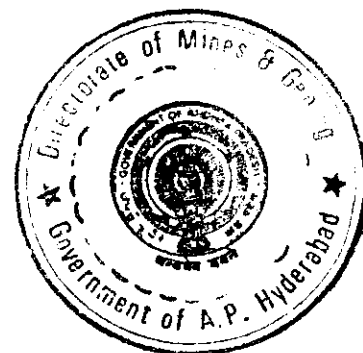
ii) Boundaries: The subject area is located in Sy No:1 of Addukonda (v), Tekkali (M). This area is surrounded by different Quarry leases as shown on plate-2 and stated below.

North: M/s Ravitheja Granites,
East: M/s Charass Granites,

West: M/s Rocks
South East: M/s Charass Granites

III GEOLOGY:

a) **Topography:** The area is located on Topo Sheet No. 74 / B / 2 (1:50,000 Scale) at the junction of Latitude of 18° 37' 38" and Longitude of 84° 14' 10" (Plate-1). The subject area is located on the slope of the hillock. It is elevated on northern side and sloping towards south. There is a maximum relief of 60m towards north. Due to rocky terrain, the area does not have any trees but scattered thorny bushes cover the slope of the area. There are no prominent natural drainage channels in and around this area. But there is a seasonal watercourse, passing on SW side of the area.



b) **Regional Geology:**

During the Late- Archaean, along the eastern margin of the Dharwar Craton, intense deformation and high-grade granulite facies metamorphism of a pile of volcano-sedimentary rocks and sub- volcanic intrusives formed in long, linear, rift-related basin resulted in the development of a typical suite of rocks comprising Khonndalite, calc-granulite and charnokite represented by Eastern Ghats.

c) **Local Geology:**

Hypersthene Granulite (charnokite) is occurring in most of M.L. applied area as hillock. This rock type is formed as large size boulders from the surface without any overburden. This rock type might have been derived from high-grade granulite facies metamorphism of a pile of volcano-sedimentary rocks and sub- volcanic intrusive. The rock is formed in NW – SE trend & this type of material is being excavated for last more than ten years from this region as "*Blue Granite*". During P.L period about 100m³ of Granite blocks were dispatched from this area to the domestic and international market and about 20m³ of material is socked at site. Due to prospecting works, two pits were formed in this area. The Pit-1 was developed over a length of 60m; width of 5m & to an average depth of 3m and the Pit-2 was formed over a length of 30m, width of 10m & to an average depth of 3m. Based on the surface features and the data collected from exploratory pits, the geological plan of this area is prepared and enclosed as plate-3. The geological sections for the subject area are drawn at 25m interval an enclosed as pate-3A.

Soil with float: The foothills i.e. on southern side of the applied M.L. area is covered by the red soil with float granite consisting of small boulders and pebbles.

Blue Granite (Charnokite): Most of the applied area is i.e. on northern side of the area is formed by the blue granite (Charnokite) and no other litho units are available in this area. It is fine to medium grained, massive in nature. It has gray to blue in colour and its properties are described in details in following paras.

d) **Parameters for evaluation of the deposit:**

i) **Frequency of Occurrence of Fissures & Joints:** The deposit shown widely spaced joints of fissures from surface it self. As such a large size of granite blocks can be recovered from this area.

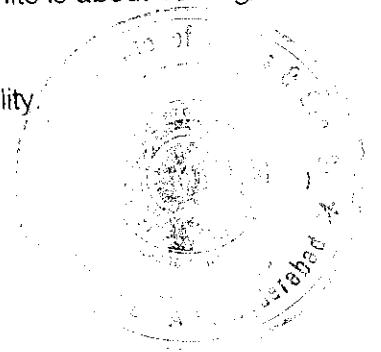
ii) **Occurrence of folds and faults:** No folds or faults are observes from this granite area.



- iii) Variation in strike: No variations are observed in the strike direction of the formation.
- iv) Splitting pattern of the stone: these granite blocks will be split into rectangular blocks of various sizes depend on the size of the granite boulders.
- v) Foliation: The colour granite does not show any foliations.
- vi) Occurrence of Intrusives: No intrusives were noticed in this blue granite area.
- vii) Extent of weathering: The applied area belongs to hillock with big size and massive boulders. So, the surface boulders are massive and give good size of blocks without weathering
- viii) Amount of O.B to be removed: Since the area is covered by the massive, large size boulders without weathering on the surface, no O.B has to be removed from granite outcropped area. However the small boulders of the granite has to be removed from the surface.

e) **Parameters for evaluation of the Stone Quality:**

- i) Texture & Grain Size: This Granite is a massive and it has medium-grained material. It is hard, compact and light gray to dark blue in colour. It shows equigranular texture consisting of medium grained plagioclase Feldspar, Quartz and garnet.
- ii) Colour & Aesthetic Beauty of the Stone: This granite stone shows light gray to dark blue in colour. This granite attains good glossy finish. The minerals available in this granite show the uniform grain size and it has good aesthetic value with mixture of colour combinations of gray, brown and blue.
- iii) Hardness: The blue granite is hard and compact. The hardness of this granite around 6 on Moh's scale of hardness.
- iv) Mineral Composition: This granite has uniform grain size of different mineral of plagioclase Feldspar=40%, Quartz=37%, garnet10% and Biotite=8%, CPX-3%.
- v) Density / Specific Gravity: The Specific Gravity of this granite varies from 2.8 to 2.9.
- vi) Water absorption Capacity: It does not have much water absorption. It is less than 0.12%.
- vii) Porosity: The Porosity of this granite is about 0.34%.
- viii) Compressive Strength: The compression strength of this granite is about 1864kg/m².
- ix) Abrasiveness: It has the Abrasiveness of 6.7.
- x) Permeability: Due to Compactness, it does not have permeability.



xi) Rock Quality Designation (RQD): Compressive Strength & Yongs Modulus of Elasticity of the rock are furnished. From these values the RQD is established to be good with RQD% between 75 to 90.

xii) Yongs Modulus of Elasticity: It is about 5.76 ($15 \times 5\text{kg/cm}^2$).

xiii) Degree of Weathering: Under hand lens/ Microscope: This granite is not weathered.

xiv) Glossiness: it takes nice polish and gives glossiness surface due to equigranular of grain size in this rock.

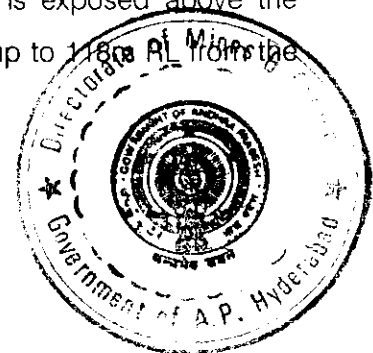
IV EXPLORATION:

a) **Present Status:** The Q.L area is a hilly terrain and consisting of only a granite formation without any other litho units. To know the recovery of block sizes, quality of Granite and market movement of this Granite, about 100m^3 of granite blocks were excavated and dispatched from this area. Due to exploratory workings, two pits were formed on northern and eastern side of the area to a length of 60m width of 5m & to depth of 3m (Pit-1) and 30m length, 10m width & to depth of 3m (Pit-2). The locations of these pits are shown on geological plan of plate-3 as Pit-1 & Pit-2.

b) **Future Programme:** The Granite is well exposed on the peek of the hill without any overburden in the center of the area. Workings will be carried out between the two existing pits. Since the granite is well exposed above the ground level, on exploratory pits or boreholes or geophysical survey works are proposed to prove the existence of granite in top portion of the area. To know the thickness of the float and soil thickness, it is proposed to dig three trial pit to a size of 5mx 5m and to a depth of 3m to 5m depend upon the availability of massive rock. The proposed trial pits will be made available in third year after the Q.L is granted. The locations of the proposed trial pits are shown on Plate-3 as PTP-1 to PTP-3.

V Reserves:

The reserves of the Granite are estimated by cross sectional method based on the data collected from exploratory pits, located in this area. The granite is exposed above the ground i.e. above 118m RL. So, the reserves, which are available up to 118m RL from the surface of the area, are considered for proved reserves.



Since there are chances for extending the granite further depth below 118m RL, another 4m thickness is considered for each category of probable and possible reserves i.e. from 118m RL to 114m & 110 m RLS respectively. The reserves are calculated by multiplying the cross sectional area with influence distance of each section and with recovery factor of granite. The recovery factor of granite for dimensional stone purpose is taken as 0.3 based on prospecting work carried out in this area. The estimated reserves of granite are given below.

Table-1

Category	Section & strike Length	sectional Area (m ²)	Volume (m ³)	R.F	Reserves (m ³)	
					Granite	Waste
Proved	A-A' - 55	82 x 12 = 984	54120	0.3	16236	37884
	B-B' - 50	70 x 16 = 1120	56000	0.3	16800	39200
	C-C' - 51	112 x 20 = 2240	114240	0.3	<u>34272</u>	<u>79968</u>
					67308	157052
Reserves of Granite blocks already excavated from existing pit =					100	233
Available proved resaves =					67208	156819
Probable	A-A' - 55	82 x 4 = 328	18040	0.3	5412	12628
	B-B' - 50	70 x 4 = 280	14000	0.3	4200	9800
	C-C' - 51	112 x 4 = 448	22848	0.3	<u>6854</u>	<u>15992</u>
					16466	38420
Possible	A-A' - 55	82 x 4 = 328	18040	0.3	5412	12628
	B-B' - 50	70 x 4 = 280	14000	0.3	4200	9800
	C-C' - 51	112 x 4 = 448	22848	0.3	<u>6854</u>	<u>15992</u>
					16466	38420

Total reserves of Granite (for Dimensional Stone) = 1,00,140 m³

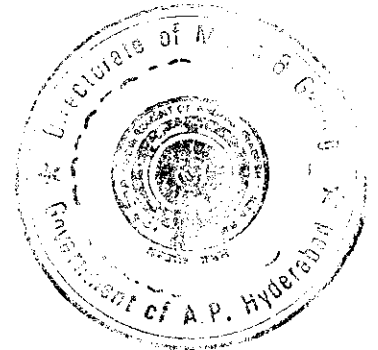
Total Granite Waste generation = 2,33,659 m³

Mineable Reserves: On three sides of the area, the granite reserves will be blocked under final pit slopes (at 45° pit slope). So, the non-mineable reserves are calculated as follows.

Cross sectional area of final pit x Length of pit slope x R.F. = 200 x 400 x 0.3 = 24,000 m³.

Therefore Mineable Reserves = 1,00,140 - 24,000 = 76,140 m³.

Life of the Quarry: Based on the previous experience of the applicant, it is proposed to raise the production of about 1200 m³ of granite blocks per annum. At this rate of production the expected life of the Quarry is about (76,140/1200) 63 years.



VI MINING:

a) i) **Type of Mining:**

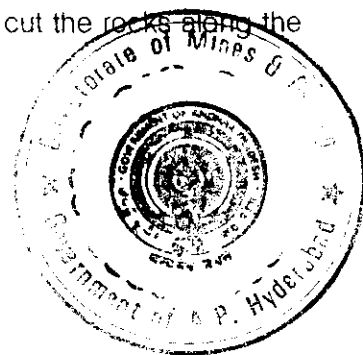
The subject area was granted for 2 years P.L to the applicant. In this P.L period the mining operations were carried out by opencast method with the help of machineries like excavator, tippers, compressor, jackhammer drills and wrench. The same machinery will be used in the Q.L period also. During the P.L period, the workings were started on top of the hill in two pits and obtained 100m³ of granite blocks. It is proposed to continue the Quarry workings between these two pits by advancing the workings from pit-1 to pit-2 of the area. Based on previous experience (gained from P.L), the lessee will follow same method of mining and produce about 1200m³ of granite blocks per year from this area. To mine granite in this area, the following machinery is used.

ii) **Type of Mechanization required:**

An excavator (Tata Hitachi -200LC) is used to remove the waste material, consisting of small & loose boulders from working face. One Tipper will be used to shift the waste and secondary blocks from working face to stockyard. To cut the big boulder in to primary & secondary blocks, three jackhammer drills are required. For this Jackhammers drilling one compressor (CP 325) is required. To load the dressed & marketable granite blocks in to trucks, excavator will be used.

b) **Brief description of the Existing method of workings:**

An excavator (Tata Hitachi -200LC) is used to remove the waste material, consisting of small & loose boulders, which are available in working face and then this waste will be loaded into tipper for transportation to dump/stockyard. Free face will be developed around the large boulders or sheet rock with the help of an excavator by removing the waste. Simultaneously, the excavated waste material will be loaded into tipper and then transported to dump yard, which is proposed on southern side of the area. The free faced boulders or sheet rock will be drilled with the help of jackhammers in a row at closer interval vertically to a depth of 3/4th size of the boulder. The sheet rock will be drilled with vertical and horizontal holes for primary block separation. The drill holes will be filled with gunpowder to its 1/3 depth of each hole and then the balance holes will be stemmed with muck. The holes, which were filled with gunpowder, will be fired to cut the rocks along the line of drill holes.



These primary blocks will be removed from its *insitue* position with the help of excavator. The primary block will be observed carefully on six faces for defects, shape and size. Later it will be cut in to secondary blocks with the help of jackhammer drilling and offset cutting to various sizes of 3 x 2 x 2m to 1.5 x 0.75 x 0.75 m depend on primary block size. While cutting primary block in to secondary blocks some under size blocks or defect material or shape less blocks will generate. This type of unmarketable material will be treated as waste and this waste material will be shifted to dump yard with the help of excavator and tipper. The secondary blocks will be shifted to stockyard by tipper and then these blocks will be dressed to perfect sizes before transportation to market. The proposed Workings and proposed dump locations are shown on working plan and section of Plate-4.

c) Details of Production obtained from this area during P.L period:

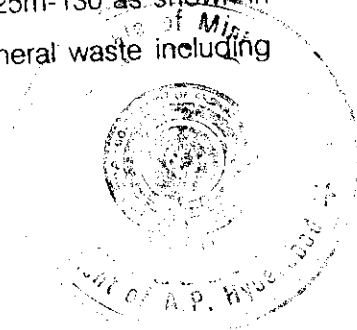
Year	Machinery Deployed	Workers Employed	Dispatch m ³	Sizes of different commercial blocks
Dece 2000 to Sept. 2002	Excavator: 1 (Hitachi-200), Tippers: 1, Compressors: 1 Jackhammers: 3	10 Nos / d	100	2.8 x 1.6 x 1.5 to 1.6 x 0.70 x 0.70 m

d) Mining program for first five years:

i) Year wise workings: The proposed workings will be carried out between the two existing pits. The workings will be started on northern side of the pit-2 and then this pit will be advanced towards pit-2 in one bench of 5m height. This area dose not has much overburden. The waste material, which is available around the boulders or sheet rock, will be removed by the excavator and free face will be developed for separation of primary and secondary blocks.

1st year: First year workings will be carried out over a length of 80m, width of 10m in-between the RLS of 120m - 125m in one benches of 5m height on NE side of the pit-1. About 1200m³ of granite blocks and 2800 m³ of mineral waste including side burden will generate from first year workings.

2nd year: In second year, the NE side bench of first year workings will be advanced towards NE to a distance of 10m over a length of 80m between the RLS of 125m-130 as shown in plate-4 and obtained the production of 1200m³ and 2800 m³ of mineral waste including side burden.



3rd year: In third year, the production of 1200 m³ Granite and 2800 m³ waste will be obtained by advancing the secondary year bench to wards NE to a distance of 10m, width of 80m between the RLS of 130m-135m as shown in plate-4.

4th year: In fourth year, the production of 1200 m³ Granite and 2800 m³ mineral waste will be obtained by advancing the third year bench to wards NE to a distance of 10m, width of 80m between the RLS of 135m-140m as shown in plate-4.

5th year: In fifth year, the production of 1200 m³ Granite and 2800 m³ waste will be obtained by advancing the fourth year bench to wards NE to a distance of 10m, width of 80m between the RLS of 140m-145m as shown in plate-4. The bench wise production details of each year are given in Annexure-III.

e) Quantum of excavation (O.B & Granite):

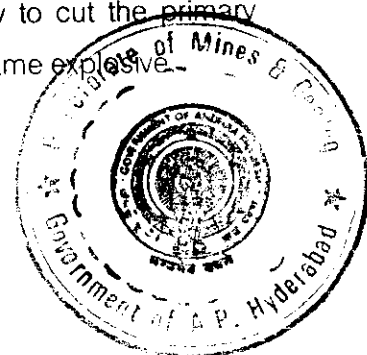
Removal / Excavation of O.B and other Quarry Waste if any and its Disposal: The quarry operations will be continued from the existing pit on top of the hill. Along with the production blocks, the granite waste consisting of small size and shape less boulders will be removed from the working face. In every about 80m x 10m area will be worked out and 2800 m³ of waste will generate per year. In this five year about 14,000 m³ of waste will generate from this area.

f) Production & Marketing:

It is proposed to obtain about 1200 m³ of granite blocks to a different sizes of 3 x 2 x 2m to 1.5 x 0.75 x 0.75 m per year in this five years program. During P.L period, the granite blocks of more than 2.9x 1.6 x 1.0m size were supplied to other countries and the smaller size blocks were sold to domestic market. In future also this material will be marketed to other countries and as well with in India.

g) Magazine, Type and Capacity:

At present the applicant dose not have any explosives license. So, it is proposed to obtain the explosive license for storage the explosive at mine site (proposed location is shown on plate-4) as per the provisions of Indian Explosives Act for their procurement and transportation. To minimise the crack development in granite blocks and to bring down the mineral wastage, the explosive like gunpowder is used in this quarry to cut the primary blocks from mother rock. In Q.L period also it is proposed to use the same explosive



h) Description of processing Plant if any: There is no of processing Plant to the applicant.

i) Organization Chart:

Proprietor

Mines Manager/ Mines Foreman

Supervisor
Register Keeper

Mate
Excavator Operator: 1 No
Truck Drivers: 2 Nos
Drillers: 4 Nos
Compressor Operator: 1 No
Cutters : 4 Nos
Helpers : 8 Nos

j) Site Services:

A rest shed & office will be constructed on SW corner of the subject area, where the locations are shown on Plate-4.

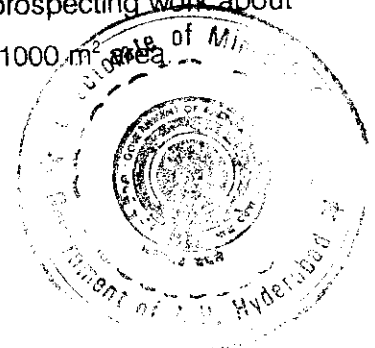
VII SCHEME OF WASTE MANAGEMENT PLAN (SOLID & LIQUID):

- a) Solid waste: About 70% of the material from granite production is going to be generated as solid (granite) waste. In every about 2800 m³ of waste will generate and about 14000m³ of waste will generate during first five years. Year wise waste generation particulars are given in anneure-III.
- b) Liquid waste: The quarry workings are located at higher levels than the ground level on the top of the hill. So there will not be any water seepage in the working pit and no water will be discharged form this quarry.
- c) Dumping site Particulars: The subject area has non-mineralised zone on southern side. So the site for waste dumping was selected adjacent to the existing dump on southern side of the area over a length of 100m to a width of 35m and to a height of 4m (Ref: Plate -4).
- d) Utilization of waste, if not prevented: The waste material will be stocked on southern side of the area temporarily. Later this waste is used for road maintenance and for building material.

VIII ENVIRONMENT MANAGEMENT PLAN:

a) Baseline Information:

- i) Land use Pattern: The subject area is a Govt. wasteland. Due to prospecting work about 600 m² area is occupied by two pits and waste dump has occupied 1000 m² area.



ii) Water Regime: There are no perennial water sources in and around the applied area within 500m radius. The surface rainwater of the area flows through the slopes of the area and joins to seasonal watercourses, which are located in out side the lease area.

iii) Flora and Fauna: Since the subject area is a rocky terrain, it does not contain any trees but the slopes of the area have thick thorny bushes. There is no report of existence of wild animals in this region.

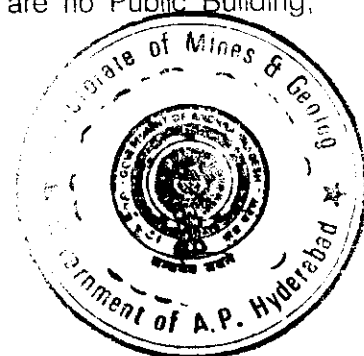
iv) Quality of Air, Water and Ambient Noise Level: The subject area is away from industries and villages. So the air and water are fresh and unpolluted in this area.

v) Climatic Conditions: The area has a tropical climate. The peak summer will be in the month of May. Highest temperature of 45° is recorded in this area during the month of May and the lowest temperature of 12° is recorded in the month of January. During 2001-2002 the rainfall in this area is about 340mm.

vi) Human Settlement: The following villages are located within 5km radius of the applied area. The population, distance and direction of the villages with respect to the applied area are given in the following table and their locations are shown on plate-1.

Name of the Village	Population	Distance(km)	Direction
Tekkali	8500	2.5	SE
Polavaram	2400	4.0	SW
Sitapuram	1200	2.0	S
Peddasana	1000	5.0	SW
Tirlangi	600	2.5	SW
Ramakristnapuram	500	1.5	SW
Sativada	300	3.5	SW
Savarabanjarupeta	450	3.5	W
Ragunadhapuram	650	2.0	SE
Lakshmipuram	200	3.5	SW

vii) Public Building, Places of Worship and Monuments: There are no Public Building, Places of Monuments within or near by the area.



b) **Environmental Impact Assessment (next five years):**

- i) **Land Degradation:** In addition to old pit, about 4000m² area will be occupied by the proposed workings to a depth of 25m, where the location is shown in plate-4.
- ii) **Quality of Air:** chances area there for air pollution at the time of jackhammer drilling & at the time transportation of Mineral & waste. But this air pollution will bring down by keeping waste cloth around jackhammer road and the drill hole at the time drilling. The mine roads will be sprayed with water, before starting the transportation of Mineral & wastes for minimise air pollution.
- iii) **Water Quality:** There will not be any change in Quality of water due to granite mining, which is located at higher levels than the groundwater table. The surface rain water flow through the seasonal watercourse as usual.
- iv) **Noise:** the noise of excavator, compressors & Jackhammer drilling will be minimised to permissible limits (105 dB) by operating equipment at different place and by carrying periodical maintenance regularly to these machinery.
- v) **Vibration Levels:** There will not be any vibration due to jackhammer blasting.
- vi) **Water Regime:** Quarry operations will be carried out at higher levels. Hence, neither groundwater table nor the surface drainage pattern is going be affected.
- vii) **Socio-Economics:** The inhabitancies of the surrounding villages are mainly depending on agriculture. Quarrying is on small scale, limited to 12 members. Hence there will not be much impact on Socio-Economics of the local inhabitant.

c) **Environmental Management Plan:**

- i) **Storage and Utilisation of Topsoil:** No topsoil is going to be generated from this mining.
- ii) **Proposal for Reclamation of Land Effected by Mining:** No reclamation is proposed in this five years period because; the mining will be continued further depths below first five year workings
- iii) **Afforestation Programme:** The SW side of the buffer zone will be planted in these five years. Every year about 50m length and 6m width of the buffer zone on northern side sides will be planted with 33 plants at 3m-grid interval. Year-wise plantation area is shown on plate-4
- iv) **Stabilisation and Vegetation of Dumps:** About 14000m³ of waste material will be generated during this five years period. This waste will be dumped on southern sides of the area and the dumps will be stabilized by the pack wall.



- v) Measure to Control to Erosion / Sedimentation of Watercourses: The is no surface erosion in the subject area because the surface area is covered by the granite.
- vi) Treatment and Disposal of Water from Mine: No water will be disposed from mine.
- vii) Measures for Minimising Adverse Effects on Water Regime: No adverse effects are anticipated on water regime.
- viii) Measures for Protecting Historical Monuments and Rehabilitation of Human Settlements likely to be disturbed due to Mining Activity: There are no Historical Monuments or Human Settlements within or near by the area.
- ix) Socio Economic Benefits Arising out of Mining: Few labors will get employment and the state Government and village Panchayathi will get royalty due to mining activity.

IX ANY OTHER RELEVANT INFORMATION:

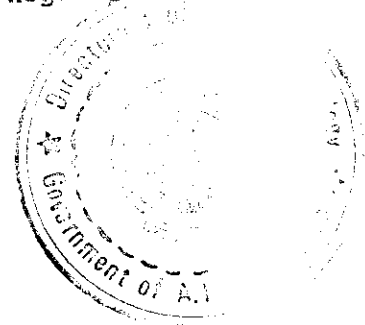
The granite quarrying will be carried out by following the rules of Granite Concession & Development Rules 1999.

For *P. P. Dayasankar*
Signature of the Applicant

Partner

[Signature]
Signature of RQP

Reg: 36.160/M.P./2012



APPROVED

[Signature]
Dr. P. DAYASANKAR
JOINT DIRECTOR
DEPT. OF MINES & GEOLOGY
GOVT. OF A.P. HYDERABAD.

NOTICE NO 13289/MS-3/2002.

DATED: 1.10.2002.

Sub: Mines and Quarries - Quarry Lease application -
Extent: 2.400 Hectares - Survey Number: 1 -
Villages: Addukonda - Mandal: Tekkali
Dist. Srikakulam - In favour of M/s. Sri Venkateswara
Granites for a period of 20 years - A.M.P. Called for -
Reg.

Ref: 1. From M/s. Sri Venkateswara Granites, Q.L. Application
dt: 2.9.2002.
2. From the ADM&G, Srikakulam Letter / File
No 4321/Q/2002, dt: 19.09.2002.

M/s. Sri Venkateswara Granites in the reference 1st cited, have applied for grant of Quarry Lease for Colour Granite over an extent of 2.400 Hectares in S.No. 1 of Addukonda Village, Tekkali Mandal, Srikakulam District.

2. The Asst. Director of Mines and Geology, Srikakulam in the reference 2nd cited, has stated that the applied area is held under P.L. by the applicant. The applicant has submitted the prospecting report on the subject area. Further the Assistant Director has recommended for grant of Quarry Lease for Colour Granite over an extent of 2.400 Hectares in S.No. 1 of Addukonda Village, Tekkali Mandal, in Srikakulam District in favour of M/s. Sri Venkateswara Granites for a period of 20 years.

3. The Director of Mines and Geology, Hyderabad after careful examination of the above proposals of the Asst. Director of Mines and Geology, Srikakulam has proposed to grant the Quarry Lease over an extent of 2.400 hectares in S.No. 1 of Addukonda Village, Tekkali Mandal, Srikakulam District in favour of M/s. Sri Venkateswara Granites for a period of 20 years subject to the submission of Approved Mining Plan within six months from the date of receipt of this Memo.

4. Therefore, M/s. Sri Venkateswara Granites are requested to submit the Approved Mining Plan for the above area referred at Para 2 for a period of 20 years within a period of six months from the date of receipt of this notice for consideration of their Quarry Lease application.

5. Further, they are also informed that if they fail to submit the A.M.P. within a period of six months from the date of receipt of notice it will be presumed that they have no interest in their Quarry Lease application and further action will be taken based on the material available with the Director of Mines and Geology.

Sd/- T. Devendranath.

DIRECTOR OF MINES AND GEOLOGY

//E.C.E b o //

SUPERINTENDENT.

To:

M/s Sri Venkateswara Granites

Managing Partner: Sri. P. Ramachandran,

Dr.No. 1-342, Rotary Nagar, Tekkali Mandal, Srikakulam Dist.

Sri. S.K. Partha Sarathi.

Copy to Asst. Director of Mines and Geology, Srikakulam.

Copy to Approved Mining Plan Section

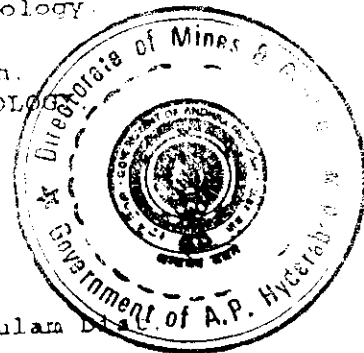




Photo shows the applied Q.L. area of M/s Sri Venkateswara Granites
Located in S.No.1 of Addukonda (V), Tekkali (M), Srikakulam Dt



Photo shows the prospecting work in M/s Sri Venkateswara Granites
area, located in S.No.1 of Addukonda (V), Tekkali (M), Srikakulam Dt

Year- Wise Granite Production

Annexure -III

Year	Bench RLS	Working Areas m ²	Bench height	Volume m ³	R.F	Production m ³	
						Granite	Waste
I	120-125	80 x 10 = 800	5m	4000	0.3	1200	2800
II	125-130	80 x 10 = 800	5m	4000	0.3	1200	2800
III	130-135	80 x 10 = 800	5m	4000	0.3	1200	2800
IV	135-140	80 x 10 = 800	5m	4000	0.3	1200	2800
V	140-145	80 x 10 = 800	5m	4000	0.3	1200	2800

