

EXECUTIVE SUMMARY**1. INTRODUCTION OF THE PROJECT/BACK GROUND INFORMATION**

M/S POKARNA LIMITED applied for Quarry Lease for Color Granite over an extent of 25.00 Hectares in S. No 121 of Buduruvada Village, Parvathipuram Mandal, Vizianagaram District, Andhra Pradesh. The director of Mines and Geology, Hyderabad, after careful examination of the Proposal of the Assistant Director of Mines and Geology, Vizianagaram, in principle decided to consider for grant of Quarry Lease over an extent of 25.00 Hectares in Survey number 121 of Buduruvada Village, Parvathipuram Mandal, Vizianagaram District in the state of Andhra Pradesh for a period of 20 years. The director of Mines and Geology, Hyderabad, Vide Notice No 23536/ R1-1/2011 dated 11-06-2013, directed the applicant to submit an Approved Mining Plan within a period of 6 months from the date of issue of Notice and also subject to submission of Consent for Establishment (CFE) from Andhra Pollution Control Board and Environmental Clearance from the Ministry of Environment and Forest (MoEF) as per EIA Notification S.O.1533 dated 14-09-2006

The Quarrying Plan is prepared under Rule of “Granite Conservation and Development Rule, 1999”. The Dept. of Mines and Geology, Andhra Pradesh has directed the applicant/lessee to submit Quarrying Plan from the State Government (Department of Mines & Geology) & environmental clearance from MOEF as per the recent guidelines/orders of the Govt. of India.

India is one among the leading countries in mining and export of granite and is rich in granite reserves. Geologically, the southern and eastern belts of the Nation are abundant in granite deposits. Different shades of granites are available in abundance in Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Assam, Bihar, Rajasthan, Odisha, Meghalaya and Madhya Pradesh. Indian Granite Stone has become the most sought-after and extensively used stone material and massive structural works throughout the world, and it is well known in the International market, not only for its elegance and aesthetic quality, but also for its durability.

Granite is a very hard crystalline, igneous or metamorphic rock primarily composed of feldspar, quartz and lesser amounts of dark minerals. India has vast resources of granite with about 110 varieties of different colours and textures such as black, grey, Colour,

multi coloured, etc. These varieties are used to produce monuments, building slabs, titles, surface plates etc. However, popular varieties are mainly found in South India.

Granite in the form of slabs and tiles has several attractive features, which, inter alia, includes extra-fine mirror-polish, scratch-free glossy surface and durability. Granite can be compared very well with other floor and wall application materials such as ceramics and marble.

The lessee is in the Granite Quarrying Industry for more than two decades meeting the domestic demand and exports of Granite to industries which is found to have use for Monuments, Flooring slabs/tiles, Kitchen articles, sculptures & for domestic use.

The lease area is found to have prominent exposures of Colour Granite covering most of the Quarry lease area. Detailed study of the area has been done by the applicant/lessee by sampling exposed blocks of Colour Granite and depth of the existing working pit. In view of the proposal for development and production of Colour Granite, the applicant/lessee intends to produce 12000 cubic meters/annum with Run of Mine (ROM) of 48000 cubic meters/annum by carrying out medium scale quarrying/mining by engaging both manual & machineries i.e. Semi-mechanized Open cast method of quarrying/mining.

The Quarrying Plan is prepared under Rule of “Granite Conservation and Development Rule, 1999” the application for Environmental Clearance along with this report is herewith submitted to MOEF for obtaining Environmental Clearance.

Present Proposal:

The present proposal is submitted to the Ministry of Environment & Forests under the EIA Notification 2006 as per the Orders of the Honorable Supreme Court dated 27.02.2012 directing that leases of minor minerals including their renewal for an area of less than 5 ha be granted/renewed after getting environmental clearance from MOEF due to an interstate boundary of Andhra Pradesh and Orissa is located at a distance of 1.5km from the ML area.

Need for the project:

Rapid industrialization and growth in infrastructure has made global as well as domestic demand for Granite. So number of Granite manufacturing quarries &

industries are coming up in this sector. Granite is the chief material in this sector, for the export industries like monuments, flooring slabs, Kitchen articles, sculptures & export. The size & quality parameters for supply of the mineral will be as per the requirements of the user industry.

Based on the demand of Granite, the Company intends to also increase the production to meet their required quantum of Colour Granite for domestic & international market. As per EIA notification 2006 project proponent is submitting the proposal to get Clearance for production capacity of 1164 cubic meters/annum of granite blocks from State Level Environmental Appraisal Committee / State level Impact Assessment Authority of Andhra Pradesh constituted by MoEF, GOI, for the purpose of colour granite mine shall be worked by semi-mechanized method of working.

➤ **Employment Potential:**

The proposed Manpower is around 27 including Mining Engineer with Mines Manager competency certificate, Geologist, Foreman and other Staff. About 50 peoples will be assigned job relating to the handling of the granite and waste & others are working at sundry and other routine works in the mines. The Mine shall provide indirect employment for 50 people. The working hours at the mines will be 8 hours/day for 300days/year.

2. PROJECT DESCRIPTION

The site is geographically located between North Latitude 18°75'91.7" and East Longitude 83° 24'50". The project site and 50% of its 10kms buffer zone falls in the Survey of India Toposheet No. 57 N/1 & 2. ". The Lease area is a mound. The area is devoid of any forest or tree cover. It comprises shrubs only.

There are no prominent natural drainage channels in the area. In general the area is plain studded with isolating hillocks. Sometimes they may raise gently as continuous hills, presenting a rugged topography.

The Other details are given below:

<i>Toposheet NO.</i>	<i>57 N/1&2</i>
<i>Latitudes</i>	<i>18°75'91.7" N</i>
<i>Longitudes</i>	<i>83° 24'50" E</i>
<i>Survey No. & Villages</i>	<i>121 –Buduruvada village</i>
<i>Mandal & District</i>	<i>Parvathipuram</i>
<i>Extent Area</i>	<i>25.00 Ha.</i>
<i>Type of Land</i>	<i>Government Land (Barren)</i>
<i>Road Connectivity</i>	<i>A B.T. road of 1.5 km length is connecting to the area from Sangannadoravalasa village</i>
<i>Nearest Railway station</i>	<i>19 Kms of Parvathipuram is the nearest Railway Station/sidings</i>
<i>Method of Quarry</i>	<i>Semi Mechanized Opencast quarrying (Category – B2)</i>

➤ **Geology of the Area**

The terrain in and around the area is sloping in the Northern direction and consists of sheet rock of Migmatized Gneiss, Khondalites, Charnokites and Lyptinites. The maximum RL recorded in the area is 370 m in the Southern part and the minimum RL is 200 m in the Northern part, the relief of the hill is 170 m. The general trend of the mound is E – W direction. Two set of joints are observed, one is parallel and the other perpendicular to strike direction. They are widely spaced and are useful in splitting big blocks from the mother rock. The rock exposed in the area is light yellow to off white in colour. The rock on physical examination is medium grained, massive has a gneissic pattern. The other accessory mineral present are biotite and garnet. The rock at place is intruded by quartz vein and feldspar band. The weathering extends to a depth varying from few inches to a foot in some area. A Megascopic and polished sample indicates that the rock takes good polish and exhibits a very good porphyritic texture. The overall appearance of the rock is yellowish / whitish / creamish in colour.

Exploration & Reserves

The Reserves are estimated by Cross sectional method. Based on the prospecting work carried out and the present exposure of the rock, the reserves of the area have been estimated by the following parameters. We even taken 5.0m as proved zone and 5.0m as probable and possible zones in this area the recovery factor is taken only 25%.

The total reserves under the three categories of proved, probable and possible is estimated as 50,48,500 cu m and considering a tentative recovery of 25%, the insitu reserves of recoverable blocks are 12,62,125 cu m and 37,86,375 cu m is estimated as wastage. The reserves are likely to change once the quarry is fully opened up. The reserves given here are taking in to consideration one homogenous mass there are every likely hood that the material may be more defective than what is anticipated. The reserves will revised after the proposed exploration and when the quarry is fully opened up. The recovery factor will also be arrived at correctly.

The Estimated Reserves (Quantity in Cu. Mtrs.):

Sl.No.	Description	Quantity in Cu m
01	In situ reserves under proved category	25,24,250
02	Reserves blocked in the 7.5 m buffer zone	3,38,880
03	Blocked in benches	1,51,616
04	Depleted so far	Nil
05	Total blocked (2+3+4)	4,90,496
06	Balance reserves (1-5) =	20,33,754
04.	Recovery @ 25%	5,08,439

Considering the mineable reserves as 5,08,439 cu m and an average production level of 12,000 cu m per annum, the life of the mine is = $5,08,439 / 12,000 = 42.36$ years. The life of the mine arrived here are taking in to consideration one homogenous mass and there is every likely hood that the material may be more defective than what is anticipated. The reserves, recovery factor and the life of the Quarry will revised after the proposed exploration and when the quarry is fully opened up

➤ **Projected productions of ROM and Marketable blocks during the plan period-**

Year	Volume in Cum	Recoverable Blocks (25%) cum	Wastage 75% in cum
First	48,000	12,000	36,000
Second	48,000	12,000	36,000
Third	48,000	12,000	36,000
Fourth	48,000	12,000	36,000
Fifth	48,000	12,000	36,000
TOTAL	2,40,000	60,000	1,80,000

➤ **Method of Quarry**

The quarry is proposed to be worked by semi-mechanized method of working. As per the proposals of the Mining/Quarrying plan, the production of Colour Granite, is planned to be worked by deploying machineries for development & productions. The separation/segregation of Colour Granite based on physical parameters will be done both manually with conventional tools like crowbars, Hammers, pickaxes, steel pans, etc. and mechanically using drilling equipments, blocks cutting by wire saw, excavator, Cranes, loaders and tippers will be deployed for quarrying work. The parameters will thus be Bench height of about 5 mtrs & width is more than height of bench and Jack hammer drilling carried with dust proof drilling machineries & no blasting will be proposed to be carried out.

➤ **Solid Waste Management:**

Removal of weathered rock and the rock waste is the only solid waste that will be generated from this mine. Some of the material from the waste may be sorted out and used for making small blocks to be used by the local unit for making tiles. The market for tiles is good at the moment and they will offer a better substitute for marble in terms of price and quality. Some rejected and unsorted material may be used in the civil engineering projects in the vicinity of the area. The waste material can also be crushed into smaller sizes and can be used as road metal

The waste generated during the five years may be dumped in the zone separately reserved for dumping within the Q.L. area. The dump will be designed in such that it will have slopes equal to the angle of repose of such material. Garland drains have to be sunk along around the leading edge of the dump. A retaining wall will be constructed around the dump to preventing the slanting of boulders Care will be taken to minimize the waste generation at the source.

During the five years period the total quantity of waste likely to be generated is 1,80,000 cu m. It consists of granite blocks of various sizes, shapes and dimension. It is estimated that about 36,000 cu m / year of waste will be generated..

Some part of the material from the waste may be sorted out and used for making small

blocks known as¹ khandas' to be used by the local unit for making tiles. The market for tiles is good at the moment and they will offer a better substitute for marble in terms of price and quality. Some rejected and unsorted material may be used in the civil engineering projects in the vicinity of the area. The waste material can also be crushed into smaller sizes and can be used as road metal.

The waste generated during the five years may be dumped in the zone separately reserved for dumping in the area. The dumps will be designed in such that it will have slopes equal to the angle of repose of such material..

➤ **Hydrology**

In the Quarry lease there is one borewell and it is used for drinking purpose and it can be stored in to syntax tanks. The analysis of this borewell water is done and the parameters are within the permissible limits. The surface water is in the form of seasonal rainfall and the ground water bodies encountered below 50-60m depth in the area from the surface level. The area is small, so, far no report on hydrological studies has been carried out in the area under question. There is no potential of acid mine drainage.

3. SITE ANALYSIS

➤ **Connectivity**

The applied Quarry Lease area is located at a distance of 19 kms from Vizianagaram on the Vizianagaram- Tallaburdi- Buchimpeta – Dokishila – Gochak - Sangannadoravalasa road. It is located at a distance of about 1.5 kms from Sangannadoravalasa village and about 3 kms from Gochak village. Bitratuni village is located at a distance of about 1 km from the area. The Quarry lease located in village Buduruvada is called 'Becharai' (without habitation) It can be approached by a good tar road up to Sangannavalasa from there to Quarry for a distance of about 500 km by a Kutcha road.

➤ **Topography**

The applied Quarry lease area consists of an undulating terrain consisting of Migmatized Gneiss, Khondalites, Charnockites and Lyptinites having a general trend of E-W direction. The quarry lease is occupied by boulders and sheet rock located along the flank of a hillock. Two circular mounds which are rather steep occupy the major part of the area separated by a vally. The maximum RL recorded in the area is 400 m in the Northern part and the

minimum RL is 225 m in the Western part. The relief of the hill is 175 m. Boulders and sheet rock of Granite is clearly exposed in the hillock. The drainage of the area is controlled by a net work of streams which act as feeders to the tanks present in the vicinity of the area. The tanks along with the bore wells and wells constitute the main source of water for agricultural and drinking purpose. The water table is located at a depth of about 60-70 m from the ground level. The region has a tropical humid climate with the maximum and minimum temperature varying from 28 - 38⁰ in summer and 25 -15⁰ in winter. The average rainfall is around 900-1000 mm and the monsoon is from June to September. The occupation of the people in of the region is agriculture. One small Perennial stream passes within the proposed lease in the Northern part. The drainage is of dentritic pattern.

➤ **Existing Infrastructure:**

The construction of temporary structures for Mines office, Rest shelter, First aid station, sanitation & etc., are provided in the non mineralized area of Quarry lease.

The details are collected from the core and Buffer zone of the lease. The Drinking water, electricity and primary education facilities are available in almost all the villages. The Police Stations, Post Offices, Dispensary facilities, Phones, College, and Railway station are present in Mandal and District head quarters of Vijayanagaram. There are good approachable weather roads are present in the buffer zone of the area. State highway passing through major towns and near by villages. No Sensitive areas for ecological reasons within 10 kms.

Soil Classification

The lease area mainly comprises the Cuddapah system and exposed different lotho-units belonging to Kaladagi series. The Stratigraphy of Quarry lease block is as follows:

- Soil cover – 0.2 to 0.5 mtrs

4. PLANNING BRIEF

➤ **Conceptual Quarry Plan**

The entire strike length of the deposit of the Colour Granite bodies running parallel is exposed & the mine is working forming benches of 5.0 mtrs height with a general pit slope of 45°. The ultimate pit limit is marked as shown on the Geological Plan & Sections. Conceptual plan period production & development details as furnished in the Conceptual Mine Plan. However, when the Colour Granite is proved to its full depth, the conceptual

plan will be duly modified. Dumping will be done in the worked out pit area within the lease area. At the end of the Conceptual Period complete dumps will be afforested and wherever possible and along road sides afforestation will be carried out. Safety bunds, fencing & retaining walls shall be constructed as per the directions and guidelines of Directorate General of Mines Safety.

➤ **Population Projection**

The man power of mines includes Mines manager, Engineer, Geologist, skilled and unskilled Labours and medical officers etc. As for the socio-economic is concerned from the Quarry activity near by villagers shall get direct employment for about 27 persons. The proposed Quarry activities also shall bring the positive change in the villages as the mine shall provide indirect employment to more than 100 people indirectly.

➤ **Afforestation:**

The afforestation to be taken up provides the requisite floral biodiversity. At the end of the conceptual period filled dumps will be afforested and wherever possible and along roadsides afforestation will be carried out. In every year about 50 mtrs, length of buffer zone will be planted along the boundary on Northern and Western side of the area. About 33 saplings consisting of Neem, Teak will be planted per year over an area of 50m x 6m at 3m grid interval. Details of the afforestation program are given below:

YEAR	Name of the Plant	No of Plants	Area Spacing	Area Covered In Sq. M
I-Year	Mango	20	3x3 mts.	180
II-Year	Guava	20	3x3 mts.	180
III-Year	Mango	20	3x3 mts.	180
IV-Year	Mango	20	3x3 mts.	180
V-Year	Mango	20	3x3 mts.	180
Total		100		900

➤ **Assessment of Infrastructure Demand:**

The existing road network will be sufficient to meet the proposed production capacity. However, required infrastructure for transport within the leasehold area will be further strengthened and improved. No new routes or alternations are required in this regards.

➤ **Amenities/Facilities**

Lessee proposes to employ about 27 persons. This employment has a positive impact on the socio-economic conditions of the surrounding as most of the work force employed will be from the nearby areas. Local persons will be hired for meeting the requirement of trucks loading, plantation, construction of check dams, retaining walls etc.

The following are the benefits due to Quarry to the local population:

- ✎ Direct and indirect employment opportunities.
- ✎ Improved road and communication network.

5. PROPOSED INFRASTRUCTURE

The extent of lease area is 25.00 Ha. of Government barren land is recommended for colour granite mining. The proposed method of Quarry operation will be semi-mechanized opencast Quarry with drilling & by use of wire saw cutting, use of excavators & cranes with tippers/dumpers for internal transport. The lease area does not have any public roads; railways lines, telephone lines, public buildings etc.

Present infrastructure will meet the requirement of the project. The conditions of the roads in the buffer zone are unlikely to be impacted due to the proposed small scale expansion. The project authorities in association with the adjacent mine/quarry owners & district administration will also contribute to development & maintenance of roads.

➤ **Green belt Development**

It is proposed to develop a green belt of the portion of the non mineralized areas and in addition, the place around the haul road and slopes of the dumps shall have plantation. Every year it is proposed to carry out afforestation by planting about 50 saplings within & about 100 outside the lease area. The species chosen for green belt are fast growing with good canopy and dense leaf density, and some ornamental plants to give good aesthetic look. The species chosen for green belt are fast growing with good canopy and dense leaf density, and some ornamental plants to give good aesthetic look. Varieties like Neem, Teak, Tamarind, Subabul, Rain tree, Badam, Ficus will be used to develop green belt in the surrounding & Quarry area. More emphasis will be given for planting local species. Each year some part of the 7.5 m barrier zone will be subjected to afforestation and care will be taken to protect ths sapling. Fruit growing trees are proposed to planted.

➤ **Social Infrastructure**

The applied Quarry Lease area is located at a distance of 19 kms from Vizianagaram on the Vizianagaram- Tallaburdi- Buchimpeta – Dokishila – Gochak - Sangannadoravalasa road. It is located at a distance of about 1.5 kms from Sangannadoravalasa village and about 3 kms from Gochak village. Bitratuni village is located at a distance of about 1 km from the area. The Quarry lease located in village Buduruvada is called 'Becharai' (without habitation) It can be approached by a good tar road up to Sangannavalasa from there to Quarry for a distance of about 500 km by a Kutcha road.

➤ **Drinking Water Management**

There are no Water courses within or adjacent to the quarry lease and hence there is no possibility of disturbance & rainwater will continue to flow in the same direction as it is in existence. Since the water is not withdrawn(from any sources outside the lease area) for Quarry purposes for Quarrying operations no adverse impact is foreseen on the existing water regime. The rainwater stored in the pits shall be utilized for mitigating dust and other activities.

The surface water in the buffer zone is in the form of seasonal rainfall and the ground water bodies encountered below 50-60 m depth in the area from the surface level. The area is small, so, far no report on hydrological studies has been carried out in the area under question. There is no potential of acid mine drainage. The drinking water available for near by bore wells and water can be stored in to syntax tanks. During the course of Quarry operation no diversion of water course is considered as it doesn't exists.

➤ **Sewerage System**

The existing watercourses shall not be disturbed and rain water will continue to flow in the same direction. Check dams have been constructed by the side of the O.B Dumps, water will percolate in the premises of the mines area. There is no generation of domestic sewage.

➤ **Industrial Waste management**

There is no generation of affluent/toxic substance; hence treatment of mine water doesn't arise.

➤ **Solid waste management**

There is little top-soil in the Quarry area proposed. As such there is no generation of waste, whatever little is produced may be of low grade Colour Granite and intercalated waste to the tune of 90%, which is being dumped and some portion of material is used to make road & bund around the lease area. Defective Colour Granite produced shall be stacked separately and marketed for tiles or slabs as and when the demand arises. No toxic or hazardous elements are reported in the waste & hence, no effect on the surface/ground water.

➤ **Power requirement and Supply**

There will not be any requirement of power supply to the project site. The Quarry activities are envisaged to be carried out only during day time by manually for drilling and machinery for cutting by wire saw, loading, unloading by excavators & cranes with tippers/dumpers for transport. & , and all the equipment shall be operated with diesel as motive power.

6. RECLAMATION & REHABILITATION

Surface Quarry will make alteration in the topography of the area by way of excavation and surface dumps. This will lead to water pollution, silting of agricultural lands, air pollution etc. The primary objectives of reclamation are to restore the affected area to the original state as near as possible.

The various reclamation proposals planned during the plan period as well, rest of the Quarry period such as broad working benches with safe angle of slope, stabilization of dumps, installation of effective drainage system, prevention of erosion and excessive run off, & revegetation or afforestation.

As far as Quarry area is concerned, so far none of the proposed Quarry area is matured or completely exhausted. Hence, the measures like Retention walls, drainage system and afforestation works etc., shall be taken up.

7. PROJECT SCHEDULE AND COST ESTIMATES

The estimated total cost of the project is Rs. 95 lacs. The land belongs to the government i.e. revenue land including the cost of the machinery and additional preliminary works and working capital i.e. for the application and processing fee, etc .,

The return on the investment is by way of sale of mineral. All the minerals shall be marketed. The machinery is of the Company and additional required if any shall be on hire basis as per the requirement for production.

The proposed production of Colour Granite is 12000 Cubic meters/annum. The major components required to project the financial status of a project are

- ✍ Cost of the project*
- ✍ Means of financing*
- ✍ Cost of production*
- ✍ Tax burden and flows*
- ✍ Profitability*
- ✍*

➤ Cost of the Project

The cost of the project consists of the following major components:

- ✍ Land and site development*
- ✍ Buildings and civil works*
- ✍ Machinery*
- ✍ Processing charges and Consultancy charges for preparation of Quarry Plan, Environment Monitoring for generation of baseline data, EIA & EMP report, Public Consultation, pollution control board clearance etc*
- ✍ Provision for contingencies*
- ✍ Margin money for working capital*

S. No	Activity	Quantity	Recur. cost/ annum (Rs)
01	Afforestation work	50 sapling/annum	10,000
02	Retaining wall	100 mtrs/annum	15,000
03	Check dam	01/annum	25,000
04	Dust suppression	5,000 lts/day	3,00,000
05	Environmental Mitigative measures	Annual	1,00,000
06	Miscellaneous	Annum	3,00,000
Total			7,50,000

The total estimated cost of the project is Rupees 1.25 crores. The Quarry lease area is Government Revenue Lands.

➤ Cost of Production

The average proposed production of Colour Granite during the first five years is around 12000 Cubic meters per annum. The proposed ROM to be excavated is 48000 Cubic meters per annum.

The cost of the production includes the following components:

Parameters:

- 1) Mineable reserves – 508439 cum
- 2) Nature of ore – Colour Granite
- 3) Production: Colour Granite – 12000 cubic mtrs per annum

A) Direct costs of Quarry

Sl. No	Particulars	Expenditure	Cost/cubic meter Rs
1	Exploration	Proposal for drilling	50.00
2	Production cost	Drilling - Rs. 600 Rock breaker - Rs. 650 Loading & transportation - Rs. 7000 Excavation cost - Rs 1600	9850.00
3	Power, water & fuel	Annual power, water & fuel	8500.00
4	Developemnt, repairs & maintenance cost		8000.00

5	Wire saw cutting	1500.00
6	Royalty to Government	2555.00
7	Admin & Miscellaneous expenses	300.00
	Total	30,755

B) Environmental Costs:

Sl. No.	Particulars	Expenditure	Cost/M ³ Rs.
1	Air pollution! control	Rs. 3,00,000	1320.00
2	Environmental protective measures	Rs.1,00,000	45.00
3	Green belt / Afforestation	Rs. 10,000	5.00
4	Engineering construction like Retention walls Water garlands	Rs.40,000	15.00
5	Miscellaneous	Rs.3,00,000	130.00
	Total	Rs. 7,50,000 i.e Rs. 1500/M³	

C) Health and Safety:

Sl. No.	Particulars	Expenditure	Cost/tonne Rs.
1	Medical facilities	Rs. 3,00,000	
2	Doctor (Part time) & staff	Rs. 50,000	
3	Health Check up & Medicines	Rs. 50,000	
4	Safety	Rs. 25,000	
		Rs. 4,25,000	Rs. 185.00

D) Socio Economic:

Sl. No	Particulars	Expenditure	Cost/tonne Rs.
1	Education i) School books, uniforms conveyance to school ii) Scholarships iii) Repairs & maintenance of school buildings	Rs. 1,00,000	
2	Health camps	Rs. 50,000	
3	Plantation in villages	Rs. 1,00,000	
	Sub Total	Rs. 3,25,000	Rs. 140.00

E) Capital cost Rs.125 lakhs

Total pit head cost per tonne of Colour Granite/M³ : Rs.32580/-

Pit head realization for Colour Granite/M³ : Rs. 45000/-

Profit/tonne : Rs. 12420/-

Gross profit/annum for 12000 cu.mtrs Rs.1490.4 lakhs

Net profit after taxation @35% : Rs.968.7 lakhs

Profit/cu. Mtr : Rs. 8,073/cu.mtr

8. ANALYSIS OF PROPOSAL (FINAL RECOMMENDATION)

M/s. POKARNA LIMITED is proposed for annual production of 12000 Cubic meters/annum of Colour Granite. The financial estimates reveal very high rate of returns. The project is economically viable. The estimates have also taken into consideration the occupational health expenses, environmental protective measures, social welfare activities etc., The Form-I and Mining Plan are submitted with this document.

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