PRE - FEASIBILITY

REPORT

FOR OBTAINING

PRIOR ENVIRONMENT CLEARANCE

FOR

MINING ACTIVITY – CATEGORY "A"

UNDER THE EIA

NOTIFICATION – 2006 AND AS AMENDED FROM TIME TO TIME

TO

M/s. VIPUL MARBLE

LOCATED AT

Survey No.62

Area: 10.00 hect. at Vill: Koteshwar

Tal: Danta, Dist: Banskantha-385110.

May - 2016.

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1. Executive Summary

The lease area of Mine of M/s. Vipul Marble (Survey no. 62) is situated near Village - Koteshwar, Taluka - Danta, District - Banaskantha (Gujarat). Lease renewal is granted via letter no AGP/QL/RENEW/1078/95/3214 dated 15/09/1997. Lease is renewed for 20 yrs from 14/8/1997 hence lease is valid till 13/8/2017. The lease area comprises of Govt. waste land (10.00 ha).

The mining will be worked upon by open cast semi-mechanized method. Proposed rate of production is 990920 TPA. The project cost is Rs. 100 lacs. The expected life of mine will be 10 Years.

The marble block will be supplied to the gang saw and tiling plants for manufacture of slabs and tiles and used for flooring, platform or elevation purpose for decorative construction purpose.

The total mining lease area i.e. 10.00 ha falls under forest land. However, Prior approval of Central Government under Section - 2 of the forest (Conservation) Act, 1980 has been granted vide letter no. 8-355/88-FC dated 27.01.1997 which conveys the diversion of the forest land for marble mining.

As per amendment to EIA notification S.O. no. 141(E) dated 15.01.2016, this is a minor mineral mining project of marble and the proposal falls under cluster situation. As one of the lease is having mining lease area of 51 hectares (>50 ha.) and General Condition is applicable due to presence of Gujarat Rajasthan interstate boundary and Balaram - Ambaji Wild-Life Sanctuary within 5 kilometers, we have applied in MoEFCC for Environmental Clearance.

Table-1

Salient features of the Project

S. No.	Particulars	Details
A.	Mining Lease Details	
1.	Name of the Project	Marble Mining project
2.	Mineral	Marble Stone
3.	Mining Lease Area	10.00 ha
4.	Lease Holder (Proposed)	M/s. Vipul Marble
5.	Lease Validity	Lease is renewed for 20 yrs from 14/8/1997 hence lease is valid till 13/8/2017.
B	**Location**	
6.	Village	Koteshwar
7.	Taluka	Danta
8.	District	Banaskantha
9.	State	Gujarat
10.	Latitude & Longitude	Geographical Extents Latitude : 24° 20' 38.1081" N to 24° 20' 51.3448" N Longitude: 72° 52' 18.7198" E to 72° 52' 30.8683" E
C.	**Other details**	
11.	Cost of the project	Rs. 100 lac
12.	Cost for	Rs. 50,000/-

S. No.	Particulars	Details
	Environmental Protection Measures	
13.	CSR Cost	Rs. 2,00,000/-
14.	Seismic Zone	III as per IS: 1893 (Part-I) : 2002

2. Introduction of the project/ Background information

The lease area of Mine (Survey no. 62) is situated near Village - Koteshwar, Taluka - Danta, District - Banaskantha (Gujarat). Lease is renewal granted via letter no AGP/QL/RENEW/1078/95/3214 dated 15/09/1997. Lease is renewed for 20 yrs from 14/8/1997 hence lease is valid till 13/8/2017. The lease area comprises of Govt. waste land (10.00 ha). The mining will be worked upon by open cast semi-mechanized method. Proposed rate of production is 9,90,920 TPA. The project cost is Rs. 100 Lac. The expected life of mine will be 10 Years.

2.1 Environmental Management Plan

2.1.1 Air Pollution Control

Following measures will be taken to control air/fugitive pollution during mining operation:

- No Blasting is being carried out in the lease area.
- All the haul roads in the lease area have been made compact and water spraying is being done, therefore, generation of dust by movement of truck which carry mineral outside the lease area is less.
- Vehicles used for transportation are checked to avoid overloading. The same practice will be continued.
- The mine machineries and vehicles are being properly maintained to minimize generation of gaseous emissions.
- Plantation is being done on both sides of the roads to arrest air borne dust and prevent its spread outside the lease area.

- Periodical ambient air will be done as per guidelines of State Pollution Control Board.

2.1.2 Waste Management

Waste Water Management

- Water will not be discharged outside the lease area.
- Septic tanks and soak pits have been provided for disposal of domestic waste water generated from mine office.
- Garland Drains will be provided all around the pits and dumps.
- The rain water collected in mines pit will be is used for plantation, dust suppression work, etc.

2.1.3 Solid Waste Management

- Waste is in the form of crack blocks , rubbles & boulders (mineral rejects).
- The mineral rejects will be sold time to time, where it is useful for tiling plants & manufacturing of powder etc.
- No waste dump will be there at the end of life of the mine as total waste generated will be sold out.
- No top soil is found in the lease area.

2.1.4 Noise Pollution Control

- No Blasting is being carried out in the lease area.
- Proper maintenance of all machines is being carried out which will help in reducing generation of noise during operations.
- Adequate silencers provided in all the diesel engines.
- Green belts is being developed around periphery of the lease hold and along road sides.
- Periodical monitoring will be done.

2.1.5 Green Belt Development/Plantation

- Green belts will be developed around periphery of the lease area.

2.1.6 Occupational Health & Safety

- First aid and medical facilities will be provided to the workers.
- Periodical medical examination will be conducted as per mines rules.
- Inspection and maintenance of equipments.
- Personal protective equipments will be provided to all workers and it will be ensured that they wear them.
- Adequate training and information on safety and health aspects will be given.
- Health awareness programmes and camps will be organized.
- Medical Record of each employee will be maintained and updated with findings.

2.2 Brief description of nature of the project.

The lease area is 10.00 ha. Lease area is totally govt. waste land. The total mineable reserves available here are 92,26,000 tons. The expected life of mine is 10 Years.

Water requirement for project for domestic use, dust suppression and plantation will be 10.0 KLD which will be sourced from nearby villages and nearby well.

2.3 Need for the project and its importance to the country and/or region.

Marble is used as a construction material worldwide. Marble is used as raw material in construction of building and infrastructure projects.

In India, mining Industry contributes significantly to its economy. The GDP (Gross Domestic Product) contribution of mining industry varies from 2.2% to 2.5% only but total industrial sector contributes around 10% to 11%.Even small scaled mining contributes 6% to the entire cost of minerals production. The working mine contribute in the State's minerals production and improve the GDP with a positive & important effect on the region.

2.4 Demand-Supply Gap.

As is used as raw material in construction of building and infrastructure projects, the demand of is increasing day by day. In past, demand was not too much but now a days due to rapid industrialization and urbanization its demand increasing with pace of time. At present, demand of is more than the supply.

2.5 Imports vs. Indigenous production.

There will be no import for the project. The indigenously produced machinery will be used and the excavated mineral will be for domestic market.

2.6 Export Possibility.

There are no export possibilities from the proposed mining activity.

2.7 Domestic / export Markets.

At present marbles are used in temples, mosques and public buildings of architectural importance. Their west chips and powder are used in the manufacture of mosaic tiles and fat line in chemical industries respectively.

2.8 Employment generation (direct and indirect) due to the project

Direct Employment

Manager: - 1 Nos. (As per MMR 1961)

Mining Mate: -1 Nos.

Mine Workers: - 63 Nos.

Transportation is required. Hence jobs and business opportunities in logistical activities have come up.

3. Project Description

3.1 Type of project including interlinked and interdependent projects, if any.

Project is a small scale semi mechanized mining project. This project does not have interlink or interdependency on any other project.

3.2 Location (map showing general location, specific location, and project boundary & project site layout) with coordinates.

The lease area of the quarry lease is situated near village – Koteshwar, Taluka – Danta and District Banaskantha. The lease area falls within the Survey of India top sheet no. 45 D/15.

Latitude & Longitude	Geographical Extents Latitude : 24° 20' 38.1081" N to 24° 20' 51.3448" N Longitude: 72° 52' 18.7198" E to 72° 52' 30.8683" E

3.3 Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

No alternate sites were considered as this is site specific project.

3.4 Size or magnitude of operation.

Production of Marble – 9,90,920 TPA from this mine is proposed and mining will be done by opencast semi mechanized method.

Table - 2

Salient Features of the Project

S. No.	Particulars	Details
1.	Name of the Project	Marble Stone project
2.	Mineral	Marble Stone
3.	Mining Lease Area	10.00 ha
4.	Lease Holder (Proposed)	M/s. Vipul Marble
5.	Lease Period	Lease is renewed for 20 yrs from 14/8/1997 hence lease is valid till 13/8/2017.
6.	Method of mining	Open cast Semi mechanized Method
7.	Total Mineable Reserve	92,26,000 Tons
8.	Water table	30 - 35m
9.	Bulk Density	2.71 Tonnes/cum
10.	Ultimate Working Depth	36 m above water table (After 5 yrs)

3.5 Geology

3.5.1 Regional Geology

- The granitic rocks of the area are associated with Aravalli Super group and Delhi Super group of rocks.
- There are comprised of Sendra-Ambaji granite and gneiss which is grey coloured, fairly deformed and it is intrusive into Kumbhalgarh Group.
- Delhi Super group, represented by impure limestone, calc-gneiss and calc-schist, marble, quartz-sericite schist / felsic volcanic(rhyodacite) and amphibolites.

- Ambaji, Kumbaria Koteshwar, Zarivav & Chikla forms marble belt in the area.

STRATIGRAPHIC SEQUENCE IN THE BANASKHANTHA AREA

Alluvium	**Recent**
Sandstone, Limestone	Jurassic
Spidiorite, Gabbrom Dolerite, etc.	Basic intrusive.
Erinpura Granite	Post Delhi intrusive.
Phyllite, Crystalline limestone, Calcgneiss, Calc Schist, Slate, Marble, etc.	Delhi System.
Phyllite, Quartzite, Slate, Schist	Aravalli system

3.5.2 Local Geology:-

This is the most important marble belt which is being quarried near Ambaji in village Koteshwar. The marble is white in colour and shows shades of black, pink, grey and green in some cases. It takes very good polish.

At present these marbles are used in temples, mosques and public building of architectural importance. Their waste chips and powder are used in the manufacture of mosaic tiles and lime powder in chemical industries respectively. The trend of the marble is just a joint formation and strike of the marble is North – South and dipping towards East.

3.5.3 Mineral Reserves:-

The Mineral reserve of the lease area 92,26,000 tons.

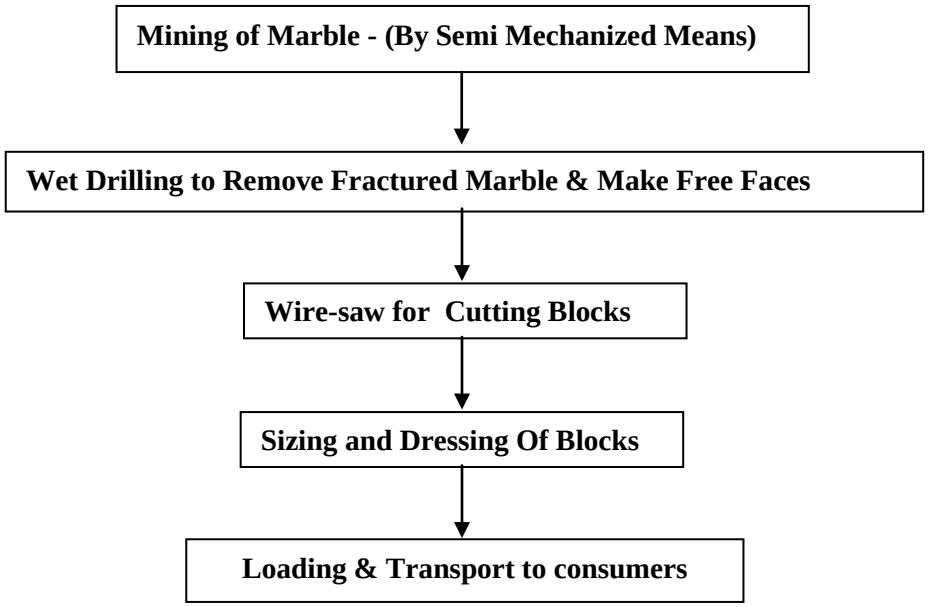
3.5.4 Production Parameters:-

The proposed capacity / year are 9,90,920 TPA. The expected life of mine will be 10 Years.

3.6 Project description with process details (a schematic diagram/ flow chart showing the project layout, components of the project etc. should be given

Method for developing and working the deposits

The mine will be worked by means of opencast semi-mechanized method which includes drilling, loading and transportation.



Note: No blasting will be done.

Use of Mineral : The marble block will be supplied to the Gang saw and tiling plants for manufacture of slabs and tiles and ultimate used for flooring, platform or elevation purpose for decorative construction purpose.

General

No. of working days per year 300

No. of shifts per day 1

3.7 Raw material required along with estimated quantity, likely source, marketing area of final product/s, Mode of transport of raw Material and Finished Product.

No raw material will be required for the production of mineral.

3.8 Resource optimization/ recycling and reuse envisaged in the project, if any, should be briefly outlined.

No wastage will be generated from mining operation

Domestic sewage water generated from office toilet will be disposed in soak pits via septic tank.

3.9 Availability of water its source, Energy/ power requirement and source should be given.

Electricity is available at a pressure of 440 Volts nearby the mining lease area from UGVCL.

Water requirement is as follows and will be purchased from nearby villages

Total Water Requirement :	10 KLD
Mining & Dust Supersession	6 KLD
Domestic	2 KLD
Plantation	2 KLD

3.10 Quantity of wastes to be generated (liquid and solid) and scheme for their Management/disposal.

As stated earlier, there will be no generation of waste in the area. The mineral rejects will be sold time to time, where it is useful for tiling plants & manufacturing of powder etc.

4. Site Analysis

4.1 Connectivity.

The lease area is ~ 2 km from the nearest Ambaji town in SW direction. Nearest village is Koteshwar at a distance of ~ 1.5 km in East direction, Abu road junction is the nearest railway station at a distance of ~ 20.0 km in NW direction and Sardar Vallabhbhai Patel International Airport is the nearest airport located at ~ 140 km distance in S direction. The mine site is well connected through SH-54 at distance of ~ 2.5 km in SW direction

4.2 Land Form, Land use and Land ownership.

The existing mining lease area is undulating area covered by hard rock.
The lease area is Strip mines quarry under landuse/landcover category.
Land Ownership: Total land of mining lease area is Forest land and it is converted to mining area by forest department.

4.3 Topography (along with map).

The lease area is hilly terrain undulating with rocky formation.

4.4 Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ)), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ. In case of notified industrial area, a copy of the Gazette notification should be given.

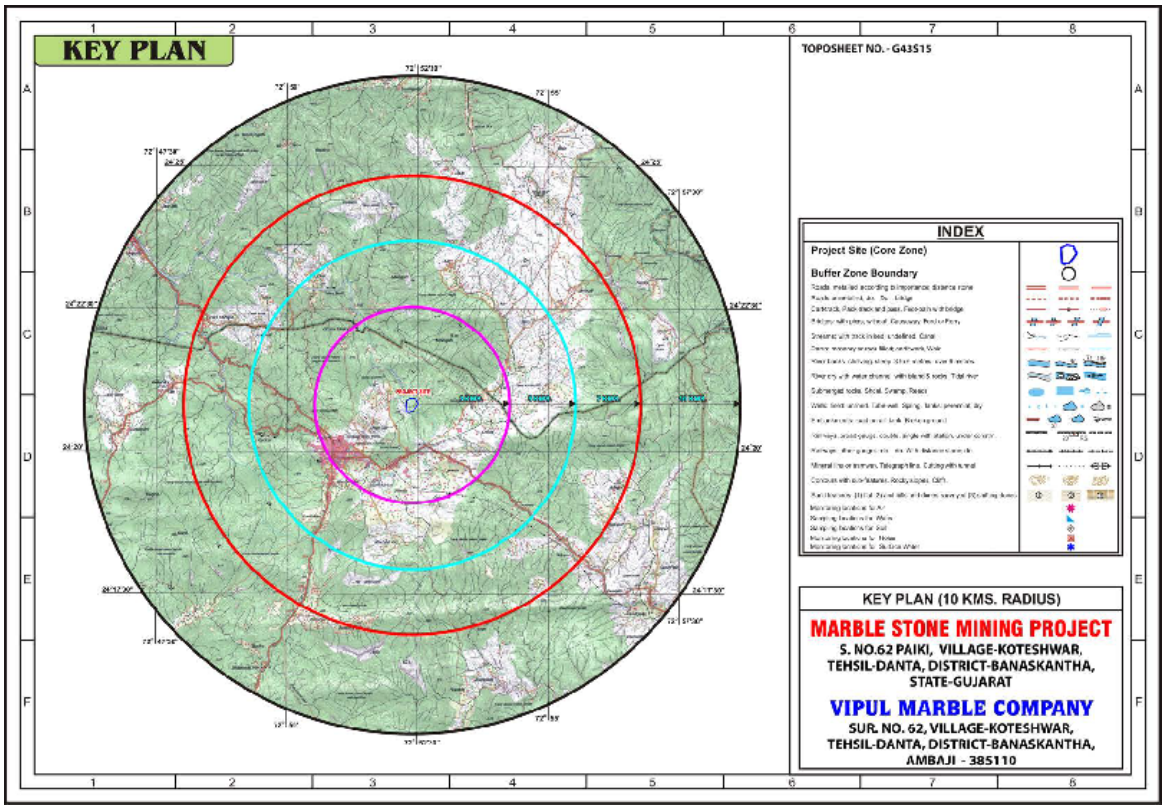
Landuse pattern: The area falls under category of Barren Land

The Balaram – Ambaji wildlife Sanctuary is Balaram - Ambaji Wild-Life Sanctuary in close proximity (Within 5 km) from mine site. No National parks, Biosphere reserves, Wildlife Corridors and Migratory routes for birds falls under 10 kilometer radius from the lease area. CRZ is not applicable to the lease area.

Environmental Settings

S. No.	**Particular**	**Details**
1.	Nearest city/ town	Ambaji town at a distance of about 2 km in SW direction.
2.	Nearest Railway Station	None within 15 km from mine site. However, Abu Road Junction at a distance of about 20.0 km in NW direction
3.	Nearest Airport	None within 15 km from mine site. However, Sardar Vallabhbhai Patel International Airport at a distance of about 140 km in S direction.
4.	Archaeological Important Place	None, within 10 km. radius area of mine site.
5.	Ecological Sensitive Areas (National Park, Wildlife Sanctuary, Biosphere Reserve etc.)	Balaram - Ambaji Wild-Life Sanctuary at in close proximity (Within 5 km)
7.	Reserved/Protected Forest within 10 km. radius	None, within 10 km. radius area of mine site.
8.	Nearest River / water body	River Teliya at a distance of ~ 0.2 km in S direction. (Seasonal)

Source: Preliminary Site visit and *SOI Toposheet*



5. Planning Brief

5.1 Planning Concept (type of industries, facilities, Transportation etc.) Town and Country Planning/ Development authority Classification

It is a mining industry in which open cast semi-mechanized mining method will be practiced.

5.2 Population Projection

There will be recruitment of local workers. There will be no change in the population projection of the most nearest & farther most villages of the project.

5.3 Land use planning (breakup along with green belt etc).

At the end of mine, 9.1067 ha area will be converted into water reservoir to store rainwater.

At the end of life of mine 33% of area will be covered under Green belt/ Plantation outside the mining lease area.

5.4 Assessment of Infrastructure Demand (Physical & Social).

Lease will assess the demand of infrastructure in nearby area of the mine site and same will be developed under social work.

5.5 Amenities/Facilities.

Lease will develop the amenities/facilities in the nearby area of the mine site as per requirements of local people of the nearby areas under corporate social responsibility programs.

6. Proposed Infrastructure

6.1 Industrial Area (Processing Area).

The area is very well connected by road network to the mines, District headquarter etc. The area is self sufficient to cater the needs of the project. Hence, no infrastructure is proposed.

6.2 Green Belt.

Native Plant species will be planted in consultation with local forest department/ horticulturist.

Green Belt/plantation will be developed equal to 33% of the lease area outside the lease area.

6.3 Connectivity (Traffic and Transportation Road/ Rail/Metro/Water ways etc)

SH-54 at a distance of ~ 2.5 km in SW direction. So no Railway, metro, water transportation is required.

6.4 Drinking Water Management (Source & Supply of water)

Villages nearby the lease area will provide the water for all the purposes.

6.5 Sewerage System.

Domestic waste water will be directed to septic tank followed by soak pit which will be cleaned time to time.

6.6 Industrial Waste Management.

As there is no industrial waste, hence not applicable

6.7 Solid Waste Management.

Waste is in the form of crack blocks, rubbles & boulders (mineral rejects).

The mineral rejects will be sold time to time, where it is useful for tiling plants & manufacturing of powder etc.

No waste dump will be there at the end of life of the mine.

No top soil is found in the lease area.

6.8 Power Requirement & Supply / source.

Electricity is available at a pressure of 440 Volts nearby the mining lease area from UGVCL.

7. Rehabilitation and Resettlement (R & R) Plan

Policy to be adopted (Central/State) in respect of the project affected persons including home oustees, land oustees and landless laborers (a brief outline to be given).

Not Applicable as there is any displacement or dislocation.

8. Project Schedule & Cost Estimates

The mining activity will be started after obtaining Environmental Clearance from MoEFCC and acquiring the valid mining lease from Mines and Geology Department of the State Government.

Estimated Project Cost Along With Analysis In Terms Of Economic Viability of the Project

Cost of the Project:	Rs. 100 Lac
Cost for Environmental Protection Measures:	Rs. 50,000/-
ESR/CSR cost:	Rs. 2,00,000/-

Details of activities & Budgetary allocation for CSR activities and labourer welfare activities are detailed in below table:

Table- 3

Entrpreneur Social Responsibility Activities & Budgetary Allocation

S. No	Particulars	Activities to be done by PP	Total Expenditure
1.	Education	Distribution of free books & stationary to village students of primary and schools of nearby village. PP will contribute in repairing work in toilets for girls in Govt. Sec School of nearby village	50,000 /-
2.	Water	PP will contribute in digging and repairing hand pumps & operation of pump.	50,000 /-

3.	Health Care	Health awareness programme will be conducted to improve health and hygiene standards	50,000 /-
4.	Social forestry	Plantation work in Schools and Govt buildings Campus of Village.	50,000/-
	Total Contribution in ESR Activities		**Rs 2,00,000**

9. Analysis of proposal (Final Recommendations)

The Project will bring economic benefits to the state by the way of royalty for mineral. The mining operations shall be providing employment to approximately 65 persons directly in the excavation. Most of the local people are likely to be benefited. This project operation will provide livelihood to the poorest section of the society. Mining is expected to have positive impact on socio-economic life of people living in nearby villages.

Signature of applicant