

**September  
2023**

**Executive Summary for Conducting Public Hearing  
FOR**

**“Thiru.B. Srikar Rough Stone and Gravel Quarry  
over a total extent of 1.86.50 Ha”**

**At**

**S. F Nos. 79 in Midithepalli Village of Shoolagiri Taluk,  
Krishnagiri District, Tamil Nadu State**

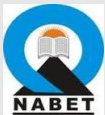
**Project Proponent:**

**Thiru.B. Srikar,  
S/o. Bharathy,  
D.No: 25, Shanthi Nagar (West),  
2nd Cross, Hosur Taluk,  
Krishnagiri - 635 109**

**Project termed under schedule 1(a) Category B<sub>1</sub>**

**Prepared By:**

**Ecotech Labs Pvt. Ltd.**



**NABET Accredited EIA Consultant**

**48, 2<sup>nd</sup> Main Road, Ram Nagar South Extension,  
Pallikaranai, Chennai -600100**

## EXECUTIVE SUMMARY

### 1. Project Background:

The Proposed project is in Patta land having total extent area of 1.86.50 Ha, located at S.F.No. 79 of Midithepalli Village of Shoolagiri Taluk, Krishnagiri District and Tamil Nadu. The category of project is B1, it is a fresh rough stone and gravel quarry in Midithepalli village. The area is situated on gently sloping terrain towards the Southeast covered with Rough Stone and Gravel which does not sustain any type of vegetation.

The quarry operation is proposed to carry out with conventional open cast mechanized mining with a 5.0-meter vertical bench with a bench width of 5.0 meter. The Quarry operation involves shallow jack hammer drilling, slurry blasting, loading and transportation.

The quarry operation is proposed up to depth for 39.0m (2.0m Gravel + 37.0m Rough stone). The Total Geological reserve is about 44,200m<sup>3</sup> of Gravel and 7,65,140m<sup>3</sup> of Rough Stone. The Mineable Reserves are 33,210m<sup>3</sup> of Gravel and 3,33,729m<sup>3</sup> of Rough stone. Production schedule is proposed an average production of 33,210m<sup>3</sup> of Gravel and 3,33,729m<sup>3</sup> of Rough stone for Ten years only.

The Mining Plan was approved by the Deputy Director, Geology & Mining, Krishnagiri vide letter Rc.No.646/2021 Mines dated 17.02.2023. There is no CRZ zone, Western Ghats, notified Bird sanctuaries, wildlife sanctuaries as per Wild life protection Act 1972, within the radius of 15Km.

### 2. Nature & Size of the Project

The Rough Stone and Gravel Quarry over an extent of 1.86.50 Hectares land is located Midithepalli Village of Shoolagiri Taluk, Krishnagiri District.

Mineral intends to quarry	: Rough stone.
District	: Krishnagiri
Taluk	: Shoolagiri
Village	: Midithepalli

S. F. Nos. : 79  
 Extent : 1.86.50 Hectares

**Table 1: Brief Description of the Project**

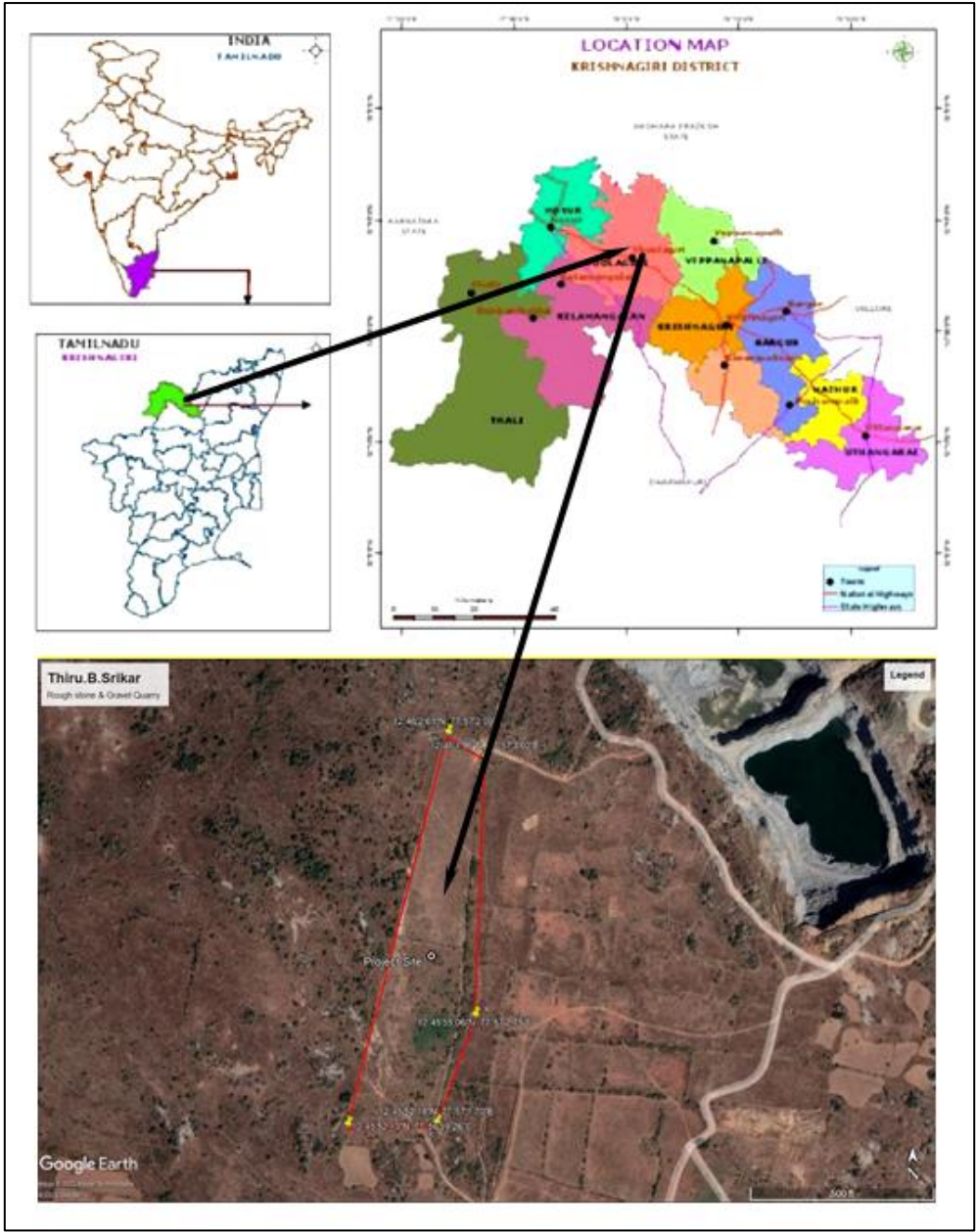
S. No	Particulars	Details
1	Latitude	12° 46' 01.9743"N to 12° 45' 52.1189"N
2	Longitude	77° 57' 03.0289"E to 77° 56' 59.2536"E
3	Site Elevation above MSL	The altitude of the area is 869m above MSL.
4	Topography	Gently Sloping Terrain
5	Land use of the site	Patta land (Consent registered)
6	Extent of lease area	1.86.50 Ha
7	Nearest highway	MDR 422 – Berigai to Shoolagiri Road – 3.18 Km - SE NH 48 – Hosur to Krishnagiri Road – 9.37 Km - S
8	Nearest railway station	Hosur Railway Station – 14.82 km - SW
9	Nearest airport	Kempagowda International Airport – 54.02 Km - NW
10	Nearest town / city	Town - Shoolagiri – 11.67 km - SE City - Hosur – 13.02 km - W District - Krishnagiri – 37.30 km - SE
11	Rivers / Canal	<ul style="list-style-type: none"> <li>• Ponnaniyar River – 6.09Km - SW</li> </ul>
12	Lake	<ul style="list-style-type: none"> <li>• Muthali lake – 4.67Km – W</li> <li>• Bukkasagaram Lake – 4.76Km- S</li> <li>• Berikai Lake – 5.12Km – N</li> <li>• Peddakullu Lake – 5.86Km – SW</li> <li>• Lake 1 – 5.25Km – SW</li> <li>• Doripalli Lake – 6.28Km – S</li> <li>• Thummanapalli Lake – 6.89Km – SSW</li> <li>• Kelavarapalli Reservoir – 7.14Km – W</li> <li>• Kamandoddi Lake – 8.56Km – S</li> <li>• Kumudapalli Lake – 9.57Km – SW</li> </ul>

		<ul style="list-style-type: none"> <li>• Moranapalli Lake – 9.89Km - SW</li> </ul>
13	Hills / valleys	Nil in 15 km radius
14	Archaeologically places	Nil in 15 km radius
15	National parks / Wildlife Sanctuaries	<ul style="list-style-type: none"> <li>• Cauvery North Wildlife Sanctuary – 25.35 Km – S</li> <li>• Cauvery South Wildlife Sanctuary – 47.26 Km - SW</li> </ul>
16	Reserved / Protected Forests	<ul style="list-style-type: none"> <li>• Meditepalli RF – 1.29Km – N</li> <li>• Berigai RF – 1.73Km – SE</li> <li>• Berigai Extension RF – 2.17Km – NE</li> <li>• Sanamavu RF – 5.91Km – SW</li> <li>• Settipalli RF – 7.37Km – SE</li> </ul>
17	Seismicity	Proposed Lease area come under Seismic zone-II (low risk area)
18	Defense Installations	Nil in 15 Km radius

### 3. Need for the Project

- ❖ The mining activities as proposed are the backbone of all construction and infrastructure projects as the raw material for construction is available only from such mining. The Rough stone extracted will be transported to be Stone crusher of district Krishnagiri.
- ❖ The raw Rough stone as well as the crushed material of stone is in high demand in real estate, construction projects as well as in building construction projects.
- ❖ Rough stone is quarried for producing crusher aggregates to the nearby building contractors, road contractors and nearby villagers.
- ❖ After quarrying the entire reserves mined out, the area will be used as water reservoir to have an artificial recharge to the nearby wells.
- ❖ No damage to the land is caused, no reclamation or back filling is required.

**Figure 1: Location Map of the Project Site**







**Figure 2: Google Image of the Project Site**

#### 4. Charnockite

Charnockite and granitic gneisses are extensively quarried as rough stone which is used as aggregates for construction of building, laying of roads and for preparation of value added products like hollow blocks, pillar stones, M-sand etc. Charnockite occurs as massive bodies, greyish colour, medium to coarse grained, composed quartz, feldspar and orthopyroxene. At places, metamorphic gneissic banding (alternate dark and black colour) in charnockite is noticed. Top portion, it gives gneissic appearance but 1-5m depth below it is typical charnockite of grey colour.

#### 5. Geological resources

The geological resources have been calculated based on the cross-section method.

**Table 2. Geological resources**

GEOLOGICAL RESERVES							
Section	Bench	L (m)	W (m)	D (m)	Volume In M <sup>3</sup>	Geological Reserves in m <sup>3</sup> @ 100%	Gravel in m <sup>3</sup>
XY-AB	I	160	80	2			25600

	II	160	32	2	10240	10240	
	III	160	80	5	64000	64000	
	IV	160	80	5	64000	64000	
	V	160	80	5	64000	64000	
	VI	160	80	5	64000	64000	
	VII	160	80	5	64000	64000	
	VIII	160	80	5	64000	64000	
	IX	160	80	5	64000	64000	
<b>TOTAL</b>					<b>458240</b>	<b>458240</b>	<b>25600</b>
XY-CD	I	155	60	2			18600
	III	155	60	3	27900	27900	
	IV	155	60	5	46500	46500	
	V	155	60	5	46500	46500	
	VI	155	60	5	46500	46500	
	VII	155	60	5	46500	46500	
	VIII	155	60	5	46500	46500	
	IX	155	60	5	46500	46500	
<b>TOTAL</b>					<b>306900</b>	<b>306900</b>	<b>18600</b>
<b>GRAND TOTAL</b>					<b>765140</b>	<b>765140</b>	<b>44200</b>

#### Mineable reserves:

The Mineable reserves are calculated by deducting 7.5m & 10m Safety distance and bench loss. In this regard, since the adjacent area also to be under new lease area, necessary action will be taken to get permission from DGMS in future to comply regulation under (111)3 of MMR.1961.

**Table 3. Mineable Reserves**

MINEABLE RESERVES							
Section	Bench	L (m)	W (m)	D (m)	Volume In M <sup>3</sup>	Mineable Reserves in m <sup>3</sup> @ 100%	Gravel in m <sup>3</sup>
XY-AB	I	153	65	2			19890
	II	153	25	2	7650	7650	
	III	153	65	5	49725	49725	
	IV	153	65	5	49725	49725	
	V	148	55	5	40700	40700	
	VI	143	45	5	32175	32175	
	VII	138	35	5	24150	24150	
	VIII	133	25	5	16625	16625	
	IX	123	15	5	9225	9225	
<b>TOTAL</b>					<b>229975</b>	<b>229975</b>	<b>19890</b>
XY-CD	I	148	45	2			13320
	II	148	41	3	18204	18204	

	III	148	45	5	33300	33300	
	IV	143	35	5	25025	25025	
	V	138	25	5	17250	17250	
	VI	133	15	5	9975	9975	
<b>TOTAL</b>					<b>103754</b>	<b>103754</b>	<b>13320</b>
<b>GRAND TOTAL</b>					<b>333729</b>	<b>333729</b>	<b>33210</b>

**Table 4. Year wise Production Plan**

<b>YEARWISE DEVELOPMENT AND PRODUCTION (First Five (I-V)Years)</b>								
<b>YEAR</b>	<b>Section</b>	<b>Bench</b>	<b>L (m)</b>	<b>W (m)</b>	<b>D (m)</b>	<b>Volume in (Cu.m.)</b>	<b>Recoverable Reserve in Cu.m(100%)</b>	<b>Gravel in m<sup>3</sup></b>
I-YEAR	XY-AB	I	153	65	2			19890
		II	153	25	2	7650	7650	
		III	153	65	5	49725	49725	
	XY-CD	I	148	45	2			13320
		II	148	41	3	18204	18204	
II-YEAR	XY-AB	IV	153	65	5	49725	49725	
III-YEAR	XY-CD	III	148	45	5	33300	33300	
IV-YEAR	XY-AB	V	148	55	5	40700	40700	
V-YEAR	XY-CD	IV	143	35	5	25025	25025	
<b>Total (First Five (I-V)Years)</b>						<b>224329</b>	<b>224329</b>	<b>33210</b>

<b>YEARWISE DEVELOPMENT AND PRODUCTION (Second Five (VI-X)Years)</b>								
<b>YEAR</b>	<b>Section</b>	<b>Bench</b>	<b>L (m)</b>	<b>W (m)</b>	<b>D (m)</b>	<b>Volume in (Cu.m.)</b>	<b>Recoverable Reserve in Cu.m(100%)</b>	
VI-YEAR	XY-AB	VI	143	45	5	32175	32175	
VII-YEAR	XY-CD	V	138	25	5	17250	17250	
VIII-YEAR	XY-AB	VII	138	35	5	24150	24150	
IX-YEAR	XY-CD	VI	133	15	5	9975	9975	
X-YEAR	XY-AB	VIII	133	25	5	16625	16625	
	XY-CD	IX	123	15	5	9225	9225	
<b>Total (Second Five (VI-X)Years)</b>						<b>109400</b>	<b>109400</b>	



## 6. Mining

### Opencast mining

The quarry operation is proposed to carry out with conventional open cast mechanized mining with 5.0-meter vertical bench with a bench width of 5.0 meter. The Quarry operation involves shallow jack hammer drilling, blasting, loading and transportation.

### Process Description

- The reserves and resource are arrived based upon the Geological investigation.
- Removal of Topsoil by Excavators and directly Loaded into Tippers.
- Removal of Rough Stone by Excavators by Drilling and Blasting.
- Shallow Drilling With Jackhammer of 25.5mm Dia.
- Minimum Blasting With Class 3 Explosives.
- Loading of Rough Stone By Excavators Into Tippers.

## 7. Water Requirement

Total water requirement for the mining project is 2.0 KLD. Domestic water will be sourced from nearby Midithepalli Village and other water will be sourced from nearby road tankers supply.

**Table 5. Water Balance**

Purpose	Quantity	Source
Drinking Water	1.0 KLD	Mineral water purchased from approved water vendors available Midithepalli village which is about 1.70 km NE from the project site.
Green belt	0.5 KLD	Other domestic activities through road tankers supply
Dust suppression	0.5 KLD	From road tankers supply
<b>Total</b>	<b>2.0 KLD</b>	

## 8. Manpower

Total manpower required for the project is approximately 18 persons. Workers will be from nearby villages.

**Table 6. Man Power**

1.	Skilled	Operators	2 Nos
		Mechanic	1 No

		Blaster / Mat	1 No
2.	Semi – skilled	Drivers	2 Nos
3.	Unskilled	Musdoor / Labors	5 Nos
		Cleaners	2 Nos
		Office Boy	1 No
4.	Management & Supervisory staff		2 Nos
<b>Total</b>			<b>16 Nos</b>

## 9. Solid Waste Management

**Table 7 Solid Waste Management**

S. No	Type	Quantity	Disposal Method
1	Organic	2.88 kg/day	Municipal bin including food waste
2	Inorganic	4.32 kg/day	TNPCB authorized recyclers

As per CPCB guidelines: MSW per capita/day =0.45 kg/day

**Table 8 500m Radius Cluster Mine**

### 1) Details of Existing quarries:

S. No	Name of the lessee	Village & Taluk	Mineral	S.F. No	Extent	Rc. No & Date	Lease Period
1.	Thiru.D.Sreenivasalu, S/o. Vekateshwarlu, No. Radha lakshmi Nilayam, Devachandra Main road, Bangalore	Shoolagiri & Midithepalli	Rough stone	80/1 80/2	3.17.08	Rc.No. 1305/2018/ Mines dated: 20.12.22	20.12.22 to 19.12.32
2.	Thiru.Venkat reddy, S/o. (Late) Uthama Reddy, Kolar Taluk, Uddanahalli, Chakkarasanahalli, Karnataka	Shoolagiri & Midithepalli	Rough stone	81/2 82/1	2.05.92	Rc.No. 1308/2018/ Mines dated: 31.10.2022	31.10.20 22 to 30.10.20 32

### 2) Details of Expired/Old Quarries:

S.No.	Name of the lessee	Village	S.F. No	Extent	GO No. & Date	Lease period
1.	M/s. Sarva Infra Pvt. Ltd, 540, 3 <sup>rd</sup> floor, CMH Road, Indira Nagar, Bangalore.	Shoolagiri & Midithepalli	70/1B, 70/1C	4.05.0	Rc.No. 09/2014/ Mines Dated:26.10.2015	28.10.2015 to 27.10.2020

### 3) Details of Proposed Quarries

S. No.	Name of the lessee	Village & Taluk	Mineral	S.F. No	Extent	GO No. & Date	Lease period
1.	Thiru.B.Srikar, S/o. Bharathy, No.25, Shanthi Nagar (West), 2 <sup>nd</sup> Cross, Hosur Tk, Krishnagiri - 635109	Shoolagiri, Midithepalli	Rough stone	79	1.86.50	-	Instant proposal

The Total extent of the Existing / Lease expired / Proposed quarries are 11.14.50 Ha.

## 10. Land Requirement

The total extent area of the project is 1.86.50 Ha, Patta land in Midithepalli Village of Shoolagiri Taluk, Krishnagiri District.

**Table 9 Land Use Breakup**

S. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Area under Quarrying	Nil	1.45.0
2.	Infrastructure	Nil	0.01.0
3.	Roads	Nil	0.01.0
4.	Green Belt	Nil	0.39.5
5.	Unutilized Area	1.86.5	Nil
	<b>Total</b>	<b>1.86.50 Ha</b>	<b>1.86.50 Ha</b>

## 11. Human Settlement

There are no habitations within 300m radius. There are villages located in this area within 5km radius of the quarry.

**Table 10 Habitation**

SL. NO.	DIRECTION	VILLAGE	POPULATION	DISTANCE
1	NW	Alnatham	327	1.50 Km
2	E	Athetti	180	1.50 Km
3	SE	Mensandoddi	310	1.81 Km
4	SW	Venkatesapuram	2873	1.60 Km

## 12. Power Requirement

The Rough Stone Quarry project does not require huge water and electricity for the project. **16 Litre** diesel per hour for excavator for mining and loading for Rough stone needed.

## 13. Scope of the Baseline Study

This chapter contains information on existing environmental scenario on the following parameters.

1. Micro – Meteorology
2. Water Environment
3. Air Environment
4. Noise Environment
5. Soil / Land Environment
6. Biological Environment
7. Socio-economic Environment

### 13.1 Micro – Meteorology

Meteorology plays a vital role in affecting the dispersion of pollutants, once discharged into the atmosphere. Since meteorological factors show wide fluctuations with time, meaningful interpretation can be drawn only from long-term reliable data.

- i) Average Minimum Temperature : 17 °C
- ii) Average Maximum Temperature : 39 °C
- iii) Average Annual Rainfall of the area: 968 mm

### **13.2 Air Environment**

Ambient air monitoring was carried out on a monthly basis in the surrounding areas of the Mine Lease area to assess the ambient air quality at the source. To know the ambient air quality at a larger distance i.e., in the study area of 5 km. radius, air quality survey has been conducted at 5 locations. Major air pollutants like Particulate Matter (PM<sub>10</sub>), Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>2</sub>) were monitored and the results are summarized below.

The baseline levels of PM<sub>10</sub> (67-41 µg/m<sup>3</sup>), PM<sub>2.5</sub> (33-14 µg/m<sup>3</sup>), SO<sub>2</sub> (21-6 µg/m<sup>3</sup>), NO<sub>2</sub> (34 - 11 µg/m<sup>3</sup>), all the parameters are well within the standards prescribed by National Ambient Air Quality during the study period from June 2023 to August 2023.

### **13.3 Noise Environment**

The maximum Day noise and Night noise were found to be 65 dB(A) and 54 dB(A) respectively in Government High School, Muthali. The minimum Day Noise and Night noise were 44 dB(A) and 39 dB(A) respectively which was observed in project site. The observed values are all well within the Standards prescribed by CPCB.

### **13.4 Water Environment**

- The average pH ranges from 6.74 – 8.53.
- TDS value varied from 405 mg/l to 1003 mg/l
- Hardness varied from 227 to 630 mg/l
- Chloride varied from 34.7 to 223 mg/l

### **13.5 Land Environment**

The analysis results shows that the majority of soil in the project and surrounding area is slightly alkaline in nature and pH value ranges from 6.90 to 8.96 with organic matter 0.11 to 0.83%. The concentration of Nitrogen, Phosphorus & Potassium has been found to be in good amount in the soil samples.

### **13.6 Biological Environment**

The proposed Mining lease area is mostly dry barren ground with small shrubs and bushes. No specific endangered flora & fauna exist within the mining lease area.

#### 14. Rehabilitation/ Resettlement

- The overall land of the mine is Government Poramboke land. There is no displacement of the population within the project area and adjacent nearby area. Social development of nearby villages will be considered in this project.
- The mine area does not cover any habitation. Hence the mining activity does not involve any displacement of human settlement.

#### 15. Greenbelt Development

1. The development of greenbelt in the peripheral buffer zone of the mine area.
2. The Green belt has been recommended as one of the major components of the Environmental Management Plan, which will improve ecology, environment and quality of the surrounding area.
3. Local trees like Neem, Pungam, Naval etc will be planted along the lease boundary and avenues as well as over non-active dumps at a rate of 100 trees per annum with interval 5m.
4. The rate of survival expected to be 80% in this area

**Table.11 Plantation/ Afforestation Program**

Name of species proposed	Survival	No of species
Neem, Pungam, Poovarasu, Naval, Mantharai, Arasa Maram, Magizham, Vilvam, vaagai, Marudha maram, Thandri, Poovarasu, Manjadi, Usil, Aathi, Panai, Uzha, Illuppai, Eachai, Vanni Maram	80%	1000
<b>Total</b>		<b>1000</b>

#### 16. Anticipated Environmental Impacts

##### 16.1 Air Environment and Mitigation Measures

1. Water sprinkling will be done on the roads & unpaved roads.
2. Proper mitigation measures like water sprinkling will be adopted to control dust emissions.
3. Plantation will be carried out on approach roads, solid waste site & nearby mine premises.
4. To control the emissions regular preventive maintenance of equipments will be carried out.



## 16.2 Noise Environment and Mitigation Measures

1. Periodical monitoring of ambient noise will be done as per CPCB guidelines.
2. No other equipment except the transportation vehicles and excavator for loading will be allowed.
3. Noise generated by these equipments shall be intermittent and does not cause much adverse impact

## 17. Responsibilities for Environmental Management Cell (EMC)

The responsibilities of the EMC include the following:

- i. Environmental Monitoring of the surrounding area
- ii. Developing the green belt/Plantation
- iii. Ensuring minimal use of water
- iv. Proper implementation of pollution control measures

## 18. Environmental Monitoring Program

A monitoring schedule with respect to Ambient Air Quality, Water & Wastewater Quality, Noise Quality as per Tamil Nadu State Pollution Control Board (TNPCB), shall be maintained.

## 19. Project Cost

The total project cost is **Rs 51,00,000/-** for deployment of machinery and creation of infrastructural facilities like approach road, mine office / Workers Shed, First Aid Room etc., including electrifications and water supply.

**Table 12 Project Cost details**

<b>S. No.</b>	<b>Description</b>	<b>Cost</b>
1	Fixed Asset Cost	Rs.21,00,000/-
2	Operational and Fencing Cost	Rs. 30,00,000/-
	<b>Total</b>	<b>Rs. 51,00,000/-</b>

Environmental Management Cost for the period of 10 years **Rs.1,32,48,533/-**

## 20. Corporate Environmental Responsibility

The Corporate Environment Responsibility (CER) fund will be provided to the below activity.

**Table 13 CER Cost**

<b>S.No.</b>	<b>CER Activity</b>	<b>CER value (Rs)</b>
1.	Government High School, Venkatesapuram – Provision of <ul style="list-style-type: none"><li>➤ To construct Toilet and Auditorium,</li><li>➤ To provide Sports equipments,</li><li>➤ Wire fence to playground and Basic amenities such as</li><li>➤ Environmental awareness books (Tamil) in Library for students, Green Belt development, Hygienic Toilet and maintenance of toilet upto lease period.</li></ul>	5,00,000
<b>Total</b>		<b>5,00,000</b>

## 21. Benefits of the Project

- There is a positive impact on socioeconomics of people living in the villages. Mining operations in the subject area has positive impact by providing direct and indirect jobs opportunities.
- The project is environmentally compatible, financially viable and would be in the interest of the construction industry thereby indirectly benefiting the masses.
- Quarrying in this area is not going to have any negative impact on the social or cultural life of the villagers in the nearby vicinity.

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