EXECUTIVE SUMMARY FOR

PROPOSED ROUGH STONE QUARRY

CATEGORY – B1

(Public Hearing Upgraded after Terms of Reference (ToR) as per the provisions of EIA Notification 2006 & amendments thereof)

ToR Identification No. TO25B0108TN5940971N (F.No. 13098), dated 16/02/2026

PROPOSED QUARRY LEASE DETAILS	
SURVEY NO	328/2 (BLOCK-38)
VILLAGE	KALPADI (NORTH)
TALUK	PERAMBALUR
DISTRICT	PERAMBALUR
EXTENT	1.00.0 Ha
CLUSTER EXTENT	13.60.0 Ha
PROPOSED PRODUCTION OF ROUGH STONE FOR 5 YEARS	ROUGH STONE : 70,885 in m^3 PEAK PRODUCTION – 15,125 m^3
LAND	GOVERNMENT PORAMBOKE LAND

(Sector No. 1(a) Sector No.1 as per NABET)

Category of the Project: B1 Cluster Mining, Total Cluster Area – 13.60.0 Ha

Baseline Monitoring Period – December 2025 to February 2026

APPLICANT

M/s. C.KAMARAJRAJASHREE MINES AND MINERALS
NO.262/1, TRICHY MAIN ROAD,
THAVUTHAIKULAM,
ARIYALUR -621705.

ENVIRONMENTAL CONSULTANT	LABORATORY
M/s. GLOBAL MINING SOLUTIONS (NABET Accredited & ISO 9001 Certified Consultant) Plot No. 6, S.F.No. 13/2, A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455. NABET Accreditation No: NABET/EIA/26-29/RA 0478 Valid up to: 03.01.2029 Contact: 97502 23535 & 94446 54520 Email: infoglobalmining@gmail.com, globalminingsolutionssalem@gmail.com	**M/s. SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE LIMITED** (NABL Accredited Testing Laboratory) Valid up to: 29.09.2025 #416/15, Dhargas Road, Perungalathur, West Tambaram, Chennai, Tamil Nadu, India.

EXECUTIVE SUMMARY

1.1 OVER ALL JUSTIFICATION FOR IMPLEMENTATION OF THE PROJECT INTRODUCTION

M/s C.Kamarajrajashree Mines And Minerals Lessee, has obtained Precise Area communication letter from the Assistant Director, Department of Geology and Mining, Perambalur to quarry out Mineable reserves of 4,39,615.00 Ts (1,59,860 m^3) of Rough Stone for 5 years upto a depth of 36m (above ground level). Existing depth 1m above ground level reached. Over an extent of 1.00.0 ha., located at the Survey No. 328/2 (Block-38) over an extent of 1.00.0 Ha., in Kalpadi (North), Perambalur Taluk, Perambalur District, Tamil Nadu State, Tamil Nadu State.

As per EIA notification, 2006 and its subsequent amendments the proposed "Rough stone Quarry of M/s RRM Transport mines cluster falls under Schedule 1(a) of EIA Notification and its subsequent amendments the project comes under Category B1. The ToR for preparation of EIA/EMP report of the project was approved vide ToR Identification No. TO25B0108TN5940971N, dated 16.02.2026. This report has been prepared in line with the approved TOR for production of maximum excavation of 70,885 m^3 of Rough Stone.

Sl. No.	Description	Status/Remarks
1.	Sector	Non-coal mining
2.	Category of the project	B1
3.	Proposed mineral	Rough stone quarry
4.	Type of Lease	Existing Quarry
5.	Extent of the lease	1.00.0 Ha
6.	Proposed depth of mining	36m (above ground level). Existing depth 1m above ground level
7.	Method of mining	Opencast Semi-mechanized.
8.	Proposed lease period	5 Years
9.	Proposed Environmental Clearance	5 Years
10.	Mineable reserves (upto 56m (above ground level)	1,59,860 m^3 Rough stone
11.	Proposed production quantity for five years (upto 36m (above ground level)	70,885 m^3 Rough stone

The Lessee M/s.C.KAMARAJRAJASHREE MINES AND MINERALS is a Proprietorship firm with sound experience in the identification, quarrying and marketing of Rough Stone. The proposed land is a Government poramboke land and attached as **Annexure 6.**

1.2 LOCATION

The proposed project site is located in Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State and its Latitude: 11°13'11.66"N to 11°13'14.98"N and Longitude: 78°54'49.97"E to 78°54'54.51"E. with Survey of India Topo Sheet No. 58 I/ 16. To conduct the study, the proposed mine lease area (core zone) and an impact zone of 10 km radius (called buffer zone) around the proposed mine site were considered. The EIA report is based on three months baseline data (i.e. December 2025 to February 2026)

1.3 GEOLOGY

The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high-grade metamorphic rock. The strike of the Charnockite formation is $N30^0W$-$S30^0E$ with vertical dipping.

1.4 PROJECT DESCRIPTION

This is a proposed Rough Stone quarry by Opencast Mechanized mining method with drilling and blasting. The quarrying is restricted up to a depth of 36m (above ground level). The geological reserves are estimated to be **4,39,430** m^3 of Rough Stone. The mineable reserve calculated by deducting 10m safety distance and bench loss. The mineable reserves are **1,59,860** m^3 of Rough Stone a which will be recovered at the rate of 100% recovery upto a depth of 56m (above ground level). The proposed production quantity is **70,885** m^3 Rough stone upto a depth of 36m (Above ground level).

- It is proposed to quarry out rough stone with 5m bench height, 5m width with 45° slope using conventional Open cast Mechanized method. The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough Stone.

- There is no overburden anticipated during entire rough stone quarrying operation.

Salient features of the project		
S.No.	**Type of Detail**	**Description**
1	Sector	1(a) Non coal mining
2	Fresh/Existing project	Existing
3	Category	B1
4	Nature of mineral	The applied area was previously operated by some other lessee. CCR is not applicable.
5	Life of the mine	5 years
6	Geological reserves	12,08,432.50 Ts Rough stone
	Mineable reserves (upto 56m (above ground level)	4,39,615.00 Ts Rough stone (1,59,860 m^3)
	Proposed production quantity for five years 36m (above ground level)	1,94,933.75 Ts Rough stone (70,885 m^3)
7	Waste generation and management	Nil
8	Existing depth	1m AGL
9	Bench height and width	Proposed bench height & width is 5.0m respectively and number of proposed benches is 7+1 Nos.
10	Ultimate pit depth	36m (above ground level)
11	End use	The excavated Rough Stone is used for construction industries for Government & Public sector projects besides catering domestic housing and infrastructure projects in and around the district.

1.5 PROJECT REQUIREMENTS

The requirements of the project is given below.

S.No.	Nature of requirement	Description
1	Water requirement	Total water requirement of 2.0 KLD which will be procured from the outside agencies. Out of 0.5 KLD drinking water requirement, Green belt development is 0.5 KLD and dust suppression is 1.0 KLD.

2	Power requirement	No electricity is needed for mining operations, for office demands, it will be met from the state grid. Total Fuel requirement is 57,966 L of HSD for entire life of the project.
3	Manpower requirement	This project will give employment opportunities to 25 people
4	Financial requirement	The total project cost as per PFR will be Rs.294.51 including Operational cost, Fixed Asset cost and EMP cost
5	Funds for Socio economic development	INR 3 Lakhs is allocated. In addition, any demand raised by people during public hearing will also be met.

1.6 DESCRIPTION OF LEASE AREA

The features in the study area is given below.

<table>
<tr><th colspan="5">Description of the lease area</th></tr>
<tr><th>S.No.</th><th>Areas</th><th colspan="3">Distance from project site</th></tr>
<tr><td>1</td><td>Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value</td><td colspan="3">Nil within 15km radius</td></tr>
<tr><td>2</td><td colspan="4">Areas which are important or sensitive for ecological reasons</td></tr>
<tr><td rowspan="6">A</td><td rowspan="6">Wetlands, water courses or other water bodies,</td><td>Water bodies</td><td>Distance</td><td>Direction</td></tr>
<tr><td>Marudhayar River</td><td>530 m</td><td>SW</td></tr>
<tr><td>Eariyur Lake</td><td>1.50km</td><td>SE</td></tr>
<tr><td>Thoramangalam small tank</td><td>1.76 Km</td><td>NW</td></tr>
<tr><td>Thoramangalam big tank</td><td>2.73 km</td><td>NW</td></tr>
<tr><td>Kottarai Dam</td><td>9.40 km</td><td>SE</td></tr>
<tr><td>B</td><td>Coastal zone, biospheres,</td><td colspan="3">Nil within 10km radius</td></tr>
<tr><td>C</td><td>Mountains, forests</td><td colspan="3">Chittali R.F – 3.26 km (NE)</td></tr>
</table>

		Kunnam RF – 5.91km (NE) Naranamangalam RF – 9.74km (SW)
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 15km radius
4	Inland, coastal, marine or underground waters	Nil within 15km radius
5	State, National boundaries	Nil within 15km radius
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 15km radius
7	Defense installations	Nil within 15km radius
8	Densely populated or built-up area	Densely Populated Perambalur – 2.30 km (NW)
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Densely Populated Perambalur – 2.30 km (NW)
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Nil
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	Nil
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earth quakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No. The area is not prone to earthquakes, floods, etc.

The baseline data collection for meteorology, air, water, noise and soil environments have been carried out during December 2025 to February 2026. Air, water, noise and soil samples are collected and analyzed through NABL accredited lab.

1.7 EXPLANATION OF HOW ADVERSE EFFECTS HAVE BEEN MITIGATED

1.7.1 AIR ENVIRONMENT

The air monitoring have been carried out in 6 locations and the results are given below.

Details Of Ambient Air Quality Monitoring Locations				
S. No.	**Station Code**	**Locations**	**Distance & Direction**	**Coordinates**
1	AAQ 1	Project site core zone	-	11°13'13.16"N 78°54'52.09"E
2	AAQ 2	Thoramangalam village	2.88 km W	11°13'2.82"N 78°53'17.32"E
3	AAQ 3	Near Perali village	4.32 km NE	11°14'3.56"N 78°57'8.70"E
4	AAQ 4	Kavulpalayam village	1.36 km N	11°14'0.21"N 78°55'5.40"E
5	AAQ 5	Kalpadi village	3.13 km S	11°11'34.74"N 78°55'12.96"E
6	AAQ6	Neduvasal village	1.00 km SW	11°12'46.98"N 78°54'36.18"E

All the values of pollutant concentrations were found to be within the NAAQs Standards.

Station ID	Min	Max	Avg.
Particulate matter PM-$_{2.5}$ (µg/m^3)			
AAQ-1	26.1	36.9	31.7
AAQ-2	22.6	28.8	25.8
AAQ-3	21.2	26.9	23.6
AAQ-4	22.0	29.6	25.5
AAQ-5	19.5	24.9	22.2
AAQ-6	21.2	27.3	23.9
CPCB NAAQS 2009 for PM $_{2.5}$ - 60 µg/m^3			
Particulate matter PM-$_{10}$ (µg/m^3)			
AAQ-1	55.3	77.9	66.9
AAQ-2	48.1	60.9	54.8
AAQ-3	47.1	57.9	51.2
AAQ-4	49.2	60.6	54.8
AAQ-5	42.4	52.7	47.1
AAQ-6	45.7	58.6	51.4
CPCB NAAQS 2009 for PM $_{10}$ - 100 µg/m^3			
Sulphur Di-oxide as SO_2 (µg/m^3)			
AAQ-1	5.5	8.0	6.7
AAQ-2	5.7	8.1	6.9
AAQ-3	6.5	8.7	11.2
AAQ-4	4.9	7.2	6.0
AAQ-5	4.2	6.8	5.5
AAQ-6	4.4	6.2	5.4
CPCB NAAQS 2009 for SO_2 – 80 µg/m^3			
Oxide of Nitrogen as NO_2 (µg/m^3)			
AAQ-1	8.9	11.2	10.1
AAQ-2	7.6	9.8	8.7
AAQ-3	8.4	11.2	9.7
AAQ-4	8.4	10.9	9.6
AAQ-5	7.6	9.9	8.8

Station ID	Min	Max	Avg.
AAQ-6	7.1	9.6	8.2
CPCB NAAQS 2009 for NO_2 – 80 µg/m^3			

1.7.2 WATER ENVIRONMENT

Results of Ground Water sampling Analysis in 6 locations							IS:10500: 2012	
	W1	W2	W3	W4	W5	W6	Desirable	Permissible
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1.0	<1.0	<1	<1	<1	<1	<5.0
pH at 25 ˚C	7.62	7.56	7.24	7.85	7.62	7.89	6.5 - 8.5	No Relaxation
Electrical Conductivity	519.5	1652	1942	2056	1287	2012	-	-
Total Dissolved Solids	312	990	1165	1234	775	1210	500	2000
Total hardness as CaCO3	174	356	394	420	234	396	200	600
Calcium as Ca	41.2	68	86.4	104	62	94.4	75	200
Magnesium as Mg	17.0	44.6	42.7	38.6	19.0	38.4	30	100
Calcium as CaCO3	103	170	216	259	155	236	-	-
Magnesium as CaCO3	71.0	186	178	161	79.0	160	-	-
Total alkalinity as CaCO3	152	312	386	382	294	395	200	600
Chloride as Cl-	79.4	376	390	412	275	410	250	1000
Free Residual chlorine as Cl-	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	0.2	1
Sulphates as SO42-	61.5	298	366	389	215	394	200	400
Iron as Fe	0.05	0.11	0.08	0.14	0.06	0.05	0.3	No Relaxation
Nitrate as NO3	BDL(D.L-1.0)	2.65	5.32	5.26	4.52	5.22	45	No Relaxation
Fluoride as F	0.16	0.45	0.57	0.68	0.46	0.62	1.0	1.5
Manganese as Mn	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	0.1	0.3

All the values were found to be within permissible limits

1.7.3 NOISE ENVIRONMENT

Noise levels were measured in 6 locations and the results are given below.

S. No	Location	Day equivalent	Night equivalent	Day equivalent limits by CPCB	Night equivalent limits by CPCB

1	Project site core zone	52.6	40.1	75	70
2	Thoramangalam village	50.5	38.8	55	45
3	Near Perali village	49.6	42.4		
4	Kvulpalayam village	48.4	41.6		
5	Kalpadi village	45.6	38.0		
6	Neduvasal village	49.9	43.8		

1.7.4 SOIL ENVIRONMENT

Soil samples are collected from 6 locations and the results are given below.

Results of Soil Sample Analysis								
S. No	**Parameter**	**Unit**	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**
1	pH at 25 °C	-	6.92	7.65	7.21	6.92	6.99	7.21
2	Electrical Conductivity	µmhos /cm	163.88	260.87	180.98	233.32	163.69	270.28
3	Dry matter content	%	90.52	90.38	91.5	85.07	92.52	87.95
4	Water Content	%	4.48	4.62	3.5	9.93	2.48	7.05
5	Organic Matter	%	0.66	0.89	0.78	1.25	0.71	0.78
6	Soil texture	-	Silty Clay loam	Silty Clay	Silty Clay	Clay	Silty Clay	Silty Clay
7	Grain Size Distribution i. Sand	%	14.79	10.12	8.16	15.65	11.92	10.43
8	ii. Silt	%	43.07	42.1	40.62	36.29	40.43	44.19
9	iii. Clay	%	37.14	42.75	46.22	43.04	42.65	40.38
10	Phosphorous as P	mg/kg	1.37	1.54	1.24	1.67	1.37	1.59
11	Sodium as Na	mg/kg	289.75	308.75	328.7	473.1	503.5	400.9
12	Potassium as K	mg/kg	543.4	627	695.4	850.25	921.5	606.1
13	Nitrogen and Nitregenous Compounds	mg/kg	243.2	384.75	138.7	197.6	231.8	290.7
14	Total Sulphur	%	BDL(D.L .0.02)	BDL(D.L .0.02)	BDL(D.L .0.02)	BDL(D.L .0.02)	BDL(D.L .0.02)	BDL(D.L .0.02)
15	Porosity	%	17.67	18.43	17.29	16.06	17.58	17.01
16	Water Holding Cabacity	Inches /foot	38.95	36.1	38	41.8	39.9	38

1.7.5 BIOLOGICAL ENVIRONMENT

FLORA

For measuring the extent of flora present in the study area, the area is divided in to 4 quadrants. The flora population in each quadrant is summed up for the total population in the study area. Field survey is done. Erukku, Aavarai and Nayuruvi are found in lease area. In the buffer zone, common trees like Neem, papaya, mango, teak, etc and shrubs like Avarai, Aloe vera, etc, climbers like Kovai,jasmine etc are found.

FAUNA

In the study area, commonly found animals like dogs, cats, bush rat, cows, birds like crow, Myna, Sparrow, etc were found.

1.7.6 LAND USE

The land use land cover data is found using the LANDSAT – 9 satellite imagery. The number of bands used are 11. The land use pattern is given below:

Major Land Use Units of the Study Area in Percentage			
Sl.No.	**Land Use / Land Cover**	**Area in Sq.Km**	**Area in Percentage**
1	Built-up land	10.71	3.4
2	Crop land	211.33	67.26
3	Existing quarries	3.85	1.3
4	Fallow land	3.05	1.2
5	Hill and forest	11.12	3.53
6	Land with scrub	31.65	10.07
7	Land without scrub	21.67	6.89
8	Plantations	6.2	1.97
9	Salt affected Land	2.19	0.69
10	Water body	12.39	3.69
	Total Area	**314.2**	**100**

1.7.7 SOCIO ECONOMIC ENVIRONMENT

The socio economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used.

The following data area collected from secondary data.

- Demographic pattern.
- Health pattern
- Occupational structure.
- Amenities available.

The expert visited 5 villages in the study area namely Thoramangalam village, Near Near Perali, Kavulpalayam village, Kalpadi village and Neduvasal village. Discussions were held with the people from nearby locality to study the social and economic conditions prevailing in the area. The expert also visited nearby hospitals, primary health centres and Kalpadi.

The following observations were made.

Primary schools are available in many villages. For hospital facilities, people in the locality have to go to Perambalur which is about 3.8 km NW from the lease area. Major schools with higher secondary and senior secondary schools are located in Perambalur. Facilities like petrol pump stations, ATM facility are available in Perambalur.

1.7.8 HYDROGEOLOGY OF THE LEASE AREA

There is the Marudhayar River is located at a distance of 530m in Southwest direction, Eraiyur Lake – 1.50km (SE), Thoramangalam small tank-1.76 km (NW), Thoramangalam big tank -2.73 km (NW), Kottarai Dam – 9.40km (SE). The hydrological and hydrogeological pattern of the study area is studied in detail using satellite imagery.

There are many tanks located in the study area, which are mostly dry throughout the year. These tanks get water only during monsoons. The factors may be monsoon failure, insufficient rainfall, poor rain water management and water consuming patterns.

1.7.9 GROUND WATER STUDY

For Ground water study, satellite imagery is used. Water levels from monitoring levels are collected through imaging. The pre-monsoon and post-monsoon data are collected and the results are analyzed.

During field visit, it is observed that water is available in wells only after monsoon. The yield is obtained at deep levels only.

As far as the mining lease area is considered, the area is rocky and no major seepage is envisaged. The production quantity is very less and the depth proposed is 36m (above ground level). Hence, there will not be any major impact due to mining on water levels or ground water levels in the area.

1.8 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental impacts on the following environments are identified.

- Land environment
- Water environment
- Vegetation
- Fauna
- Air environment
- Noise environment
- Socio-economic impacts

1.9 LAND ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major impact due to this project on land environment is the change in land use. Since this quarry is a small one and the production is less, mining activity will be carried out upto 36m (above ground level). Other than quarrying of minerals, no other change will be done since there is no dumping. To prevent soil erosion during monsoon season, garland drain will be constructed with silt traps. At the mine closure stage, 0.66.0 Ha of lease area will be left as rain water harvesting pond. 0.32.0 Ha will be developed with green belt. For this, plants like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indiaca are selected. A total of 320 trees are planned to be planted. Spacing will be 3m x 3m.

1.10 WATER ENVIRONMENT: IMPACT AND MITIGATION MEASURES

There is no water body present inside the lease area. The entire water requirement for the project is 2.0 KLD which will be sourced from outside agencies. Negligible sewage will be generated, for which a septic tank with soak pit will be set up.

During monsoon season, the excess rain water, if any, will be led through garland drain of 0.6m width and 0.3 m depth to the collection pond with silt traps.

Since the mining operation will be limited upto depth of 36m (above ground level). There will not be any seepage. However, the rain water percolation and collection of water from seepage shall be less than 300lpm and it shall be pumped out periodically by a stand by diesel powered Centrifugal pump motivated with 7.5H.P.Motor. The quality of water is expected to be potable. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water can also be used for plantation purposes

The major water bodies found in the buffer zone are.

Water bodies	Distance	Direction
Marudhayar Rive	530 m	SW
Eariyur Lake	1.50km	SE
Thoramangalam small tank	1.76 Km	NW
Thoramangalam big tank	2.73 km	NW
Kottarai Dam	9.40 km	SE

Since these water bodies are located outside the lease area and there is no discharge of effluent or any untreated water from the mines will be made in to these water bodies, there is no major impact. For the canal, adequate safety distance is left. The proponent will restrict the mining operation only within the lease and no other work will be carried out near the canal or any area outside the lease.

It is planned to carryout appropriate rainwater harvesting schemes and artificial recharge schemes in the area.

- Rain water falling in the quarry will be collected efficiently through garland drains.

➢ Water thus collected will be passed through collection tank with silt traps. This water can be used by the proponent for water sprinkling and for green belt purposes.

➢ Excess water after desiltation will be provided to downstream users, if any

1.11 BIOLOGICAL ENVIRONMENT: IMPACT AND MITIGATION MEASURES

Impacts

- Fauna is affected due to noise and vibration.
- Dust generation due to mining activities
- Change in land use of the lease area
- Accidental falling of animals

Mitigation measures

- Sirens will be blown before blasting in the mines. To reduce noise levels, plantation will be done. Blasting will be carried out only in the allotted time.
- To reduce dust generation, mist sprayers will be used. During transportation, the material will be covered with tarpaulin. Water sprinkling will be done to reduce generation of pollutants
- After the mine closure stage, the mine pit will be left as rain water collecting tank, which can attract bird population in the nearby areas.
- To prevent entry of animals, the mining area will be properly fenced.

1.12 AIR ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major air pollutants due to mining operations are fugitive emissions like PM_{10}, $PM_{2.5}$. Other than these pollutants, gaseous emissions of sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) due to excavation/loading equipment and vehicles plying on haul roads are the cause of air pollution in the project area.

The major impacts are Dust emission due to drilling, blasting and transportation. The major mitigation measures include Using Wet drilling methods, Allowing drilling only with PPE, Carrying out blasting only during specified times, Avoiding blasting during unfavourable weather conditions, Using explosives of good quality, Using mist sprayers Regular wetting of transport, Covering the materials carried

in tippers with tarpaulin, Proper maintenance of vehicles used for transportation, Conducting regular emission tests for vehicles used for transport Development of greenbelt is proposed in the safety zone 10m barriers in the lease area.

The anticipated data is calculated using AERMOD software and the projected values are found to be within limits.

1.13 NOISE ENVIRONMENT: IMPACT AND MITIGATION MEASURES

Impacts

- Noise generation in mining is due to operation like drilling, blasting and transportation of minerals within and outside the lease area.
- As per DGMS (Directorate General of Mines Safety) and OSHA (Occupational Safety and Health Administration) limits, the acceptable noise level is 85 dB(A) for an exposure period of 8 hours.
- Exposure to loud noise can also cause high blood pressure, heart disease, sleep disturbances, and stress. Noise pollution also impacts the health and well-being of wildlife.
- Noise exceeding prescribed limits may cause impairment like abnormal loudness perception, tinnitus, which causes a persistent high-pitched ringing in the ears, paracusis or distorted hearing

Mitigation measures

- As the distance between the source and receptor increases, the noise level also decreases. Hence, there will be a natural attenuation
- The proposed has planned to develop green belt in the periphery of the lease area, which diminishes sound volume by dampening them.
- All the equipment/machinery/trucks involved will be properly maintained to control noise generation
- Conducting regular health checkups for employees involved
- Employees will be made to work on shifts to reduce their exposure time
- Providing earplugs to all employees

By adopting these measures, the noise levels will be maintained well within MoEF & CC limits since the baseline value is low.

1.14 VIBRATION: IMPACT AND MITIGATION MEASURES

Impacts

- Though vibration will be only felt by the people working inside the lease area, it is usually undesired.
- Vibration may also cause flyrocks
- It may frighten the birds and small insects in the lease area. However, it will be felt only for a short period

Mitigation measures

- Carrying out blasting on limited scale, only from 12:00 PM to 2:00 PM
- Control of fly rock and vibration by maintaining peak particle velocity with in standard as prescribed by the DGMS and MOEF & CC.
- Shallow depths jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive
- Supervising blasting by competent and statutory foreman/ mines manager

1.15 SOCIO ECONOMIC ENVIRONMENT

Impact and Mitigation measures

No land is acquired from anyone. No rehabilitation is needed. Hence, there is no negative impact. The proponent has planned to spend INR 3,00,000 for CER activities. This amount will be subjected to change after public hearing.

1.16 OCCUPATIONAL HEALTH

Impacts

Dust generation due to drilling and blasting, Noise generation due to drilling and blasting, unexpected accidents. Continuous exposure to dust causes Pneumonia, Tuberculosis, Rhematic arthritis and Segmental Vibration, Short term impact will be lack of sleep, high blood pressure and heart ailments. Long term exposure may lead to partial or permanent deafness, Risks include fly rocks, cracks or fissures due to improper mining methods

Mitigation measures

- Using dust suppression measures like water spraying on roads to reduce rise of air pollutants
- Providing green belt for air pollutant and noise attenuation

- Ensuring slope stability
- Employing only trained professionals for blasting
- Conducting Pre-Medical Examination for employees before inducting
- Conducting periodical Medical Examination once in 6 months.
- Making all first aid kits available in mines office
- Keeping fire extinguisher in place
- Educating the employees about how to handle unexpected happenings
- Posting information containing emergency contact numbers in mines office
- By adopting all these measures, the safety of the employees working in the quarry will be ensured.

1.17 ENVIRONMENTAL MONITORING PROGRAMME

Monitoring is done to measure the efficiency of control measures implemented. Regular monitoring of various environmental parameters like air, water, noise and soil environments is needed to assess the status of environment during the project operation. A schedule is framed with timeline to monitor various parameters during the operation of the project. To evaluate the effectiveness of environmental management programme, regular monitoring of the important environmental parameters will be taken up. Air monitoring will be carried out once in 3 months, water sample will be collected once in a season, noise will be monitored once in 3 months, soil samples will be analyzed once per season. For EMP, a budget of INR 19.51 Lakhs is allocated.

1.18 PROJECT BENEFITS

Financial benefits

- This project will contribute financially through payment of taxes like royalty, GST, etc
- The project will also contribute via CSR.
- The demands of people during public hearing will also be considered by the project proponent

Social benefits

- This project provides employment to 25 people directly. Local people will

be hired for unskilled labour.

- Through CSR, nearby schools, hospitals will be benefitted.
- For CSR, INR 3,00,000 is allocated.
- Based on the demand of the people during public hearing, further funds will be allocated, if necessary.

Various aspects of mining activities were considered and related impacts were evaluated. Considering all the possible ways to mitigate the environmental concerns Environmental Management Plan was prepared an 19.51 lakhs for the 5 years has been allocated as EMP cost. The EMP is dynamic, flexible and subjected to periodic review. For project where the major environmental impacts are associated, EMP will be under regular review. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP and the project will bring the positive impact in the study area.

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ANNEXURE-1

ANNEXURE 1

Rc.No.106/G&M/2025, Dated:02.05.2025

Department of Geology & Mining,
Collectorate,
Perambalur – 621212.

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

PRECISE AREA COMMUNICATION LETTER

Sub : Mines and Minerals - Perambalur District – Rough Stone – e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025_CGAM_525779_1 – M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896) quoted highest Bid amount (H1) For the quarry listed in Serial Number 06 – Declared as H1 bidder – H1 Bid Amount remitted – Precise Area Communicated – Reg.

Ref:
1. G.O.(Ms).No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
2. Perambalur District Gazette (Extraordinary) Notification No.1, dated:18.02.2025.
3. E-Tender published under Tender ID:2025_CGAM_525779_1 in Tamil Nadu Governmente-tender portal.
4. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.106/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)
5. Remittance challan No. 20250329002697 dated:01.04.2025 submitted by M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896)
6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.106/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)
7. Remittance challan No. 20250424023548 dated:24.04.2025 submitted by M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896)

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I invite your attention to the references cited above

Notice Inviting Tender (NIT) was published vide Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025, inviting applications for grant of rough stone quarry leases in Government poramboke lands in Perambalur District through e-Tender cum Auction. Online tender was published in Tamil Nadu Government e-tender portal (https://tntenders.gov.in/) under Tender ID:2025_CGAM_525779_1 and e-Auction was conducted on 27.03.2025 for the bidders whos' bids were qualified technically and financially.

After Financial Evaluation, M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896)was declared as H1 bidder for the quarry listed in Serial Number 06 of the Gazette as the firm quoted highest bid amount of Rs. 2,18,00,000/- for the said quarry. The H1 bidder was directed to remit 10% of the Highest bid amount vide notice in the reference 4th cited and accordingly, the H1 bidder remitted 10% of the bid amount to a

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

sum of Rs.21,80,000/- and submitted remittance challan No. 20250329002697 dated: 01.04.2025 to this office.

Subsequently, M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896) was directed to remit the remaining 90% of Highest bid amount after adjusting the Bid Security already paid by them within one month to Government head of account and to submit original remittance challan to this office. Accordingly, M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896) has remitted Rs.1,73,33,916/- after deducting Rs.22,86,084/- (the Bid Security amount already paid by the bidder) in Government account within one month and submitted remittance challans to this office.

The details of H1 Bidder for the quarry listed in Serial No.06 of the District Gazette, H1 Bid Amount offered and remittance of Bid amount by bidder are as follows.

1.	**Quarry Detail**	
	Serial No. in District Gazette No.01, dated 18.02.2025.	06
	Taluk	Perambalur
	Village	Kalpadi(N)
	S.F.No.	328/2 Block-38
	Extent	1.00.0 Hectares
	Lease Period	10 Years
2.	**H1 Bidder, Bid Amount Remittance**	
	H1 Bidder	M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896) 262/1, Trichy Main Road, Thavuthaikulam, Ariyalur - 621705
	H1 Bid Amount	Rs. 2,18,00,000/-
	10% of H1 bid amount remitted	Rs. 21,80,000/- (Challan No. 20250329002697 dated:01.04.2025)
	Bid Security (EMD) already remitted	Rs. 22,86,084/-
	90% of bid amount paid after adjusting Bid Security already paid	Rs. 1,73,33,916/- (Challan No. 20250424023548 dated:24.04.2025)

The H1 Bidder, M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896) has remitted entire H1 Bid Amount of Rs.2,18,00,000/- in Government account within one month as per sub- rule 16 of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

Therefore, in exercise of the powers conferred under sub rule 17(a) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959, an extent of 1.00.0 hectares of Government land in S.F.No. 328/2 Block-38 of Kalpadi(N) Village, Perambalur Taluk and District as notified in Serial Number.06 of the Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025 is hereby fixed as Precise Area for grant of permission to quarry Roughstone for a period of 10 years to M/s.

C.Kamarajrajashree Mines and Minerals (BID ID: 1272896), subject to the following conditions.

1. 10 meters safety distance should be left out for the adjacent Government lands.
2. The applicant shall not make any hindrance to the adjacent lands and public.
3. The applicant should submit approved Mining Plan, Environment Clearance and Consent to Establish (CTE) & Consent to Operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.

The applicant M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896) is directed to submit draft Mining Plan for the above area within 90 days for the approval of the Assistant Director, Geology and Mining, Perambalur and to submit Environment Clearance obtained from SEIAA, Tamil Nadu and CTE & CTO issued by the Tamil Nadu Pollution Control Board subsequently for further process.

Encl: Map showing the proposal lease area.

Assistant Director,
Geology and Mining,
Perambalur.

To
M/s. C.Kamarajrajashree Mines and Minerals (BID ID: 1272896)
262/1, Trichy Main Road,
Thavuthaikulam,
Ariyalur – 621705

Copy to:

1. The Chairman,
   SEIAA Level Environment Impact Assessment Authority,
   Panagal Maligai, Saidapet,
   Chennai.
2. The Commissioner of Geology and Mining, Chennai-32.

ANNEXURE-2

From

Thiru D.Bernard, M.Sc.,
Assistant Director,
Geology and Mining,
Perambalur.

To

M/s. C.Kamarajrajashree Mines
and Minerals (BID ID: 1272896)
262/1, Trichy Main Road,
Thavuthaikulam,
Ariyalur – 621705

Rc.No.106/G&M/2025, Dated:12.06.2025

Sir,

Sub: Mines and Minerals - Perambalur District – Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands – M/s. C.Kamarajrajashree Mines and Minerals quoted highest Bid amount (H1) for the quarry in S.F.No. 328/2 (Block 38), OAE of 1.00.0 hectare in Kalpadi(North) Village, Perambalur Taluk –Declared as H1 bidder – H1 Bid Amount remitted – Precise Area Communicated – Draft Mining Plan submitted for approval – Approved - Reg.

Ref:
1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024.
2. Perambalur District Gazette (Extraordinary) Notification No.1, dated:18.02.2025.
3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.106/G&M/2025, dated: 28.03.2025 & 01.04.2025.
4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.106/G&M/2025, dated 02.05.2025.
5. M/s. C.Kamarajrajashree Mines and Minerals, letter dated. 04.06.2025.

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Tender cum Auction for grant of Roughstone quarries in Government lands notified in Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025 was conducted through online as per Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

2) M/s. C.Kamarajrajashree Mines and Minerals was declared as Highest Bidder for the quarry in S.F.No. 328/2 (Block 38), to an extent of 1.00.0 hectare in Kalpadi(North) Village, Perambalur Taluk, Perambalur District and the lease period proposed for the subject quarry is 10(ten) years. The Highest Bidder M/s.GKP Transports, remitted entire highest bid amount and other statutory documents in time in accordance with rules and in the reference, 4th cited, precise area was communicated to the firm with a request to submit Mining Plan for the approval of the Assistant Director, Geology and Mining, Perambalur District and Environmental Clearance obtained from SEIAA for further process.

3) Accordingly, in the reference 5th cited, the successful bidder has submitted Draft Mining Plan prepared by Qualified Person for the above area.The draft Mining Plan submitted by M/s. C.Kamarajrajashree Mines and Minerals, has been scrutinized as per extant rules and guide lines / instructions issued by the Commissioner of Geology and Mining, Chennai in the letter Rc.No.3868/LC/2012 dated. 19.11.2012. The following observations were made in scrutiny.

a. 10-meter safety distance is earmarked for the adjoining Government lands.
b. The Geological reserve of Roughstone in the subject area has been assessed as 12,08,433 metric tonnes.
c. The mineable reserve has been computed as 4,39,615 metric tonnes of Roughstone up to a depth of 56m(above ground level).
d. The lease period of the subject Roughstone quarry is 10(ten) years and the mining plan has been prepared accordingly.
e. In the mining plan, it has been proposed for the production of 1,94,934 metric tonnes of Roughstone up to a depth of 36m (above ground level) in the first five years and remaining mineable quantity of 2,44,681 metric tonnes of Roughstone in the second five years of lease period.
f. The depth of water table in the subject area is reported as 70m BGL and workable depth has been proposed to 56m above ground level only in the mining plan. Hence, the quarrying operation will not affect the water table in the area.
g. Drilling and blasting using jack hammers and shot hole blasting are proposed. Small dia, 25mm slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Roughstone. No deep hole drilling or primary blasting is proposed.
h. It has been proposed to adopt controlled blasting measures for minimizing ground vibration and fly rocks.
i. Machineries like Tractor mounted compressor attached with Jack hammers, excavators with rock breaker attachment are proposed for quarrying operation. Trucks of 25/30 MT capacity are proposed for transportation.

4) The Mining Plan is prepared in accordance with the guidelines / instructions issued and tallies with the field conditions. The special conditions imposed in the precise area communication letter have been incorporated in the Mining Plan. Therefore, the draft mining plan is hereby approved subject to the following conditions.

i. That the Mining Plan is approved without prejudice to any other laws applicable to the quarry area from time to ti0me whether made by the Central Government, State Government or any other authority.

ii. That the approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Regulations and Development) Amendment Act 2015 or Mineral (other than Atomic and Hydrocarbon Energy Minerals) concession Rules2016, or Tamil Nadu Minor Mineral Concession Rules, 1959 or any other laws including Forest (Conservation) Act 1980, Forest Conservation Rule, 1981, Environment Protection Act, 1980 and the rules made there under.

iii. That the Mining plan is approved without prejudice to any other order or directions from any court of competent jurisdiction.

iv. That the approval of Mining Plan does not confer any rights for the renewal of quarry lease.

v. The approval is valid up to the subsistence of the lease period only.

Encl:2copies of approved Mining Plan.

Assistant Director,
Geology and Mining,
Perambalur.

Copy to:

1. The Chairman,
   SEIAA Level Environment Impact Assessment Authority,
   PanagalMaligai,
   Saidapet, Chennai.

2. The Commissioner of Geology and Mining, Chennai-32.

ANNEXURE-3

From

Thiru D.Bernard, M.Sc.,
Assistant Director,
Dept of Geology and Mining,
Perambalur.

To

M/s. C.Kamarajrajashree Mines
and Minerals (BID ID: 1272896)
262/1, Trichy Main Road,
Thavuthaikulam,
Ariyalur – 621705.

Rc.No.106/G&M/2025 Dated: 25.06.2025

Sub: Mines and Minerals - Perambalur District – Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands – M/s. C.Kamarajrajashree Mines and Minerals quoted highest Bid amount (H1) for the quarry in S.F.No. 328/2 (Block 38), OAE of 1.00.0 hectare in Kalpadi (North) Village, Perambalur Taluk – Declared as H1 bidder – H1 Bid Amount remitted – Precise Area Communicated – Draft Mining Plan submitted for approval - Details of quarries situated within 500 mts radial distance requested – furnished - Reg.

Ref:
1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024.
2. Perambalur District Gazette (Extraordinary) Notification No.1, dated:18.02.2025.
3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.106/G&M/2025, dated: 28.03.2025 & 01.04.2025.
4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.106/G&M/2025, dated 02.05.2025.
5. M/s. C.Kamarajrajashree Mines and Minerals, letter dated. 04.06.2025.

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The applicant M/s. C.Kamarajrajashree Mines and Minerals, Perambalur in the reference 5th cited has requested to provide the details of quarries situated within 500 mts radius distance from the proposed lease area referred in the subject.

Accordingly, the details of quarries (existing, proposed, expired, abandoned) situated within 500 mts radial distance from the subject area are furnished below,

1) Existing quarries:

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	GO. No	Lease Period	Remarks
1.	Thiru.N.Premkumar, S/o. Narayanasamy, No. 144/2, East Street, Venkatramanapuram, Ariyalur-621 705	Kalpadi (North), Perambalur	328/2 (Block-28)	1.00.0	Rc.No.129/G&M/2019 dated 23.06.2021	5 years From: 30.06.2021 To : 29.06.2026	Working
2.	Thiru.C.MURUGESAN S/o.Thiru.Chinnappan, Kaliyamman Nagar, Kavulpalayam, Perambalur.	Kalpadi(N), Perambalur Taluk	328/2 (Block-24)	1.00.0	Rc.No.128/G&M/2019 dated 30.12.2021	5 years From: 30.12.2021 To : 29.12.2026	Working
3.	Sri Vinayaka Minerals, No.9, 5th street, Nandanam Extension, Chennai.600035	Kalpadi (N), Perambalur Taluk	328/2 (Block-8)	2.00.0	Rc.No.125/G&M/2019 dated 04.01.2022	5 years From: 04.01.2022 To : 03.01.2027	Working
4.	M/s. SS Mines and Minerlas, No.1/189-A, 5 th street, Vasan city, Somarasampettai, Srirangam Taluk, Trichy District-620 102.	Kalpadi, Perambalur Taluk	328/2 (Block-17)	1.00.0	Rc.No.126/G&M/2019 dated 05.07.2022	5 years , From: 05.07.2022 To : 04.07.2027	Working
5.	Thiru.K.Gunasckaran , S/o. krishnasamy, No.97, Venkadajalapathi Nagar, New Bus stand, Perambalur District	Kalpadi, Perambalur Taluk	328/2 (Block-4)	1.00.0	Rc.No.123/G&M/2019 dated 05.07.2022	5 years , From: 05.07.2022 To : 04.07.2027	Working
6.	Thiru.S.Elumalai, s/o. Sengodan, Naranamangalam, Alathur Taluk, Perambalur 621 109	Kalpadi (N), Perambalur Taluk	328/2 (Block-6)	1.00.0	Rc.No.124/G&M/2019 dated 22.08.2022 -	5 years , From: 22.08.2022 To : 21.08.2027	Working

2)Proposed quarries:

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period	Remarks
1	M/s.C.Kamarajrajashree Mines and Minerals 262/1, Trichy Main Road, Thavuthaikulam, Ariyalur – 621705	Kalpadi(N)	328/2 Block 38	1.00.0	-	Instant Proposal

2.	M/s.Kavery Stone Crusher 110/1B, Maruvathur Main Road, Perali Village, Kunnam Taluk, Perambalur - 621708	Kalpadi(N)	328/2 Block 31	1.10.0	-	Presently Proposed
3.	M/s. Perambalur Quality Minerals 238/1A3, Arumadal Road, Sengunam, Perambalur - 621220	Kalpadi(N)	328/2 Block 35	1.50.0	-	Presently Proposed
4.	M/s. R R M Transport 1/303, Ariyalur Main Road, Kavulpalayam, Perambalur – 621220.	Kalpadi(N)	328/2 Block 36	1.00.0	-	Presently Proposed
5.	M/s. Sri Rajakaliamman Mines and Minerals 2/151, Kaliyamman Nagar, Kavulpalayam, Thuraimangalam, Perambalur – 621220.	Perambalur / Kalpadi (North)	328/2 (Block 34	1.00.0	-	Presently Proposed
6.	M/s. GKP Transports 174C, 1st Main Road, New Colony, Thuraimangalam, Perambalur – 621220.	Kalpadi(N)	328/2 Block 37	1.00.0	-	Presently Proposed

3) Expired quarries

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period	Remarks
1.	Thiru.D.Madhubalan, S/o.Duraisamy, No.2/29, Mariyamman Koil Street, Kai.Kalathur Post, Veppanthattai Taluk, Perambalur District-621117	Kalpadi (N) / Pblr	328/2 (Block-3)	1.00.0	5 years	

4) Abandoned quarries:

Sl. No	Name of the Owner	Taluk /Village	S.F.Nos.	Extent	Lease period
Nil					

25/06/25

Assistant Director,
Geology and Mining,
Perambalur.

25/06/25