SEPTEMBER 2024

Executive Summary for Conducting Public Hearing

FOR

"M/s. Ultra Mines Private Limited Rough Stone and Gravel Quarry over a total extent of 4.40.0 Ha"

At

S.F.No. 133/1(Part), 133/2, 133/4, 134/1 & 134/2 of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State

Project Proponent:

M/s.Ultra Mines Private Limited,
No. 168/A1, Seetharama Nagar,
Anandha Electricals, Hosur Taluk,
Krishnagiri District - 635109.

Project termed under schedule 1(a) Category B_1

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EXECUTIVE SUMMARY

1. Project Background:

The Proposed project is in Patta Land having total extent area of 4.40.0 Ha, located at S.F.No. 133/1(Part), 133/2, 133/4, 134/1 & 134/2 of Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District and Tamil Nadu. The category of project is B1, it is an existing rough stone and gravel quarry in Venkatesapuram village. The area is situated on hilly terrain sloping towards the Southeast covered with Rough Stone 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 45 m Surface Ground Level Above Height is 10m and Surface Ground Level Below Depth 35m. The Total Geological reserve is about 1949296 m^3 of Rough Stone and 89832 m^3 of Gravel. The Mineable Reserves is about 601641 m^3 of Rough Stone and 63116m^3 of Gravel. The year wise production/recoverable resources of rough stone for 5 years is about 588141 m^3 and Gravel is about 63116 m^3.

The Mining Plan was approved by the Deputy Director, Geology & Mining, Krishnagiri vide letter Rc.No.86/2024/Mines Dated: 21.05.2024. The project area does not fall in Hill Area Conservation Authority region. There is no interstate boundary, CRZ zone, Western Ghats, notified Bird sanctuaries, wildlife sanctuaries as per Wildlife protection Act 1972, within a radius of 15 km.

2. Nature & Size of the Project

The Rough Stone and Gravel Quarry over an extent of 4.40.0 Hectares land is located Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District.

Mineral intends to quarry	: Rough stone and Gravel
District	: Krishnagiri
Taluk	: Shoolagiri
Village	: Venkatesapuram
S. F. Nos.	: 133/1(Part), 133/2, 133/4, 134/1 & 134/2
Extent	: 4.40.0 Hectares

Table 1: Brief Description of the Project

S. No	Particulars	Details
1	Latitude	12°45'14.72"N to 12°45'26.27"N
2	Longitude	77°57'14.30"E to 77°57'23.15"E
3	Site Elevation above MSL	The highest elevation in east side 878m AMSL and Lowest is 868m AMSL.
4	Topography	Elevated terrain
5	Land use of the site	Patta land
6	Extent of lease area	4.40.0 Ha
7	Nearest highway	MDR 422 – Berigai to Shoolagiri Road – 2.13Km – E NH 44/AH 45: Dharmapuri – Bengaluru Road – 8.02 km, SW
8	Nearest railway station	Hosur Railway Station – 14.26 km - SWW
9	Nearest airport	Kempagowda International Airport – 55.08 km - N
10	Nearest town / city	Town - Shoolagiri – 10.44 km – SE City - Hosur – 13.50 km - SW District - Krishnagiri – 34.36 km - SE
11	Rivers / Canal	Ponnaniyar River – 6.11 Km - SW
12	Lake	Muthali lake – 5.20 Km – W Peddakullu lake – 6.19 Km – W

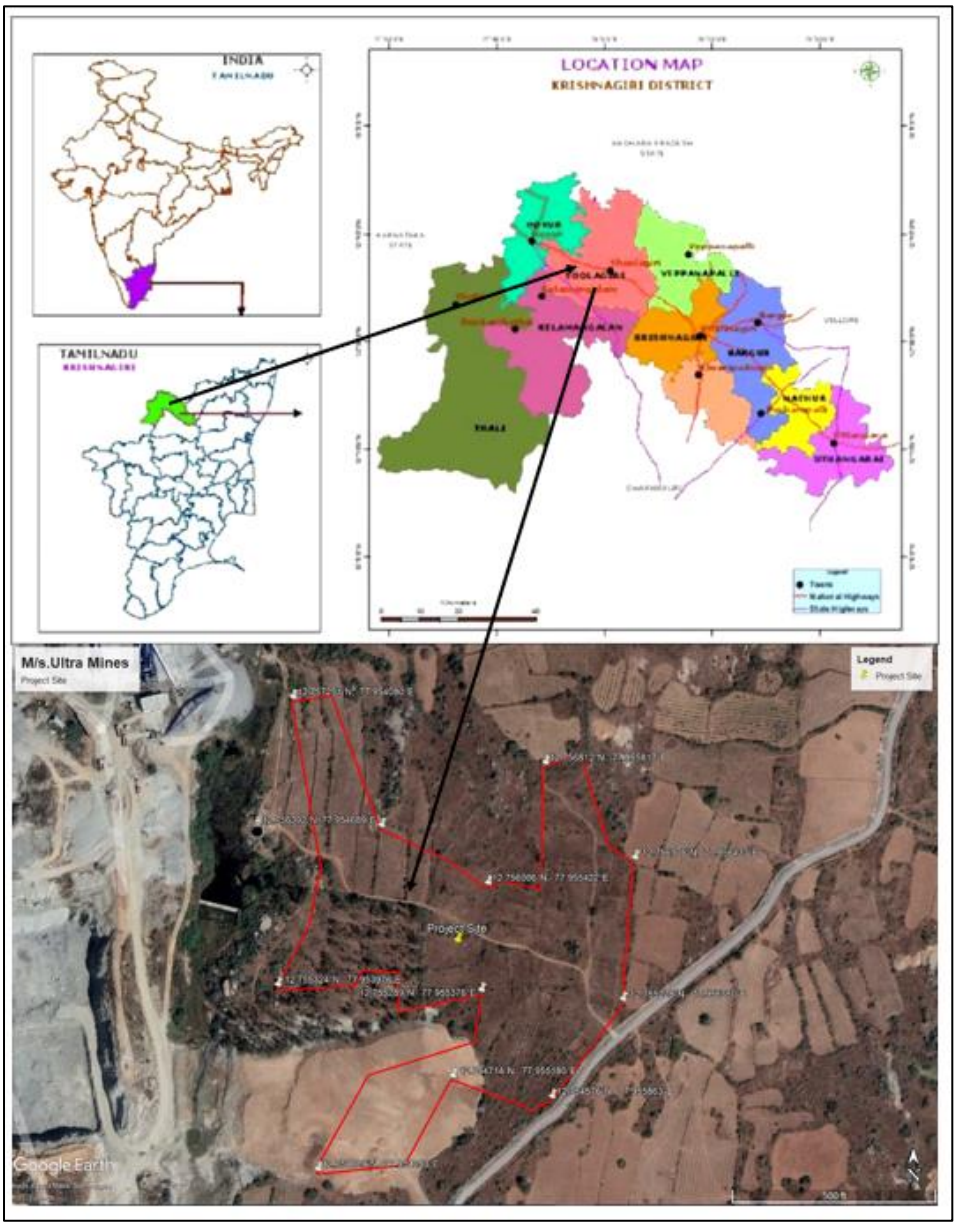
		Bukkasagaram lake – 3.75 Km – S Doraipalli lake – 5.16 Km – S Bathlpalli lake – 11.12 Km – W Koladasapuram Lake – 5.40 Km – SWW Thummanapalli Lake – 6.05 Km – S Berikai Lake – 5.98 Km – N Gangapuram Lake – 6.88 Km – SW A.Kothur Lake – 7.27 Km – SSW Kamandoddi Lake – 7.48 Km – S Kamandoddi Old Lake – 8.42 Km – S Kumudepalli Lake – 9.42 Km – SW Subbagiri Lake – 7.37 Km - S
13	Hills / valleys	Nil in 15 km radius
14	Archaeologically places	Nil in 15 km radius
15	National parks / Wildlife Sanctuaries	Nil in 15 Km radius
16	Reserved / Protected Forests	Berikai Extension RF – 2.41 Km – NE Sanamavu RF – 5.47 Km – SW Miditepalli RF – 2.47Km – N Marandapalli RF – 6.53 Km - SE Settipalli RF – 6.79 Km – SE Nallur RF – 10.98 Km - SE
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



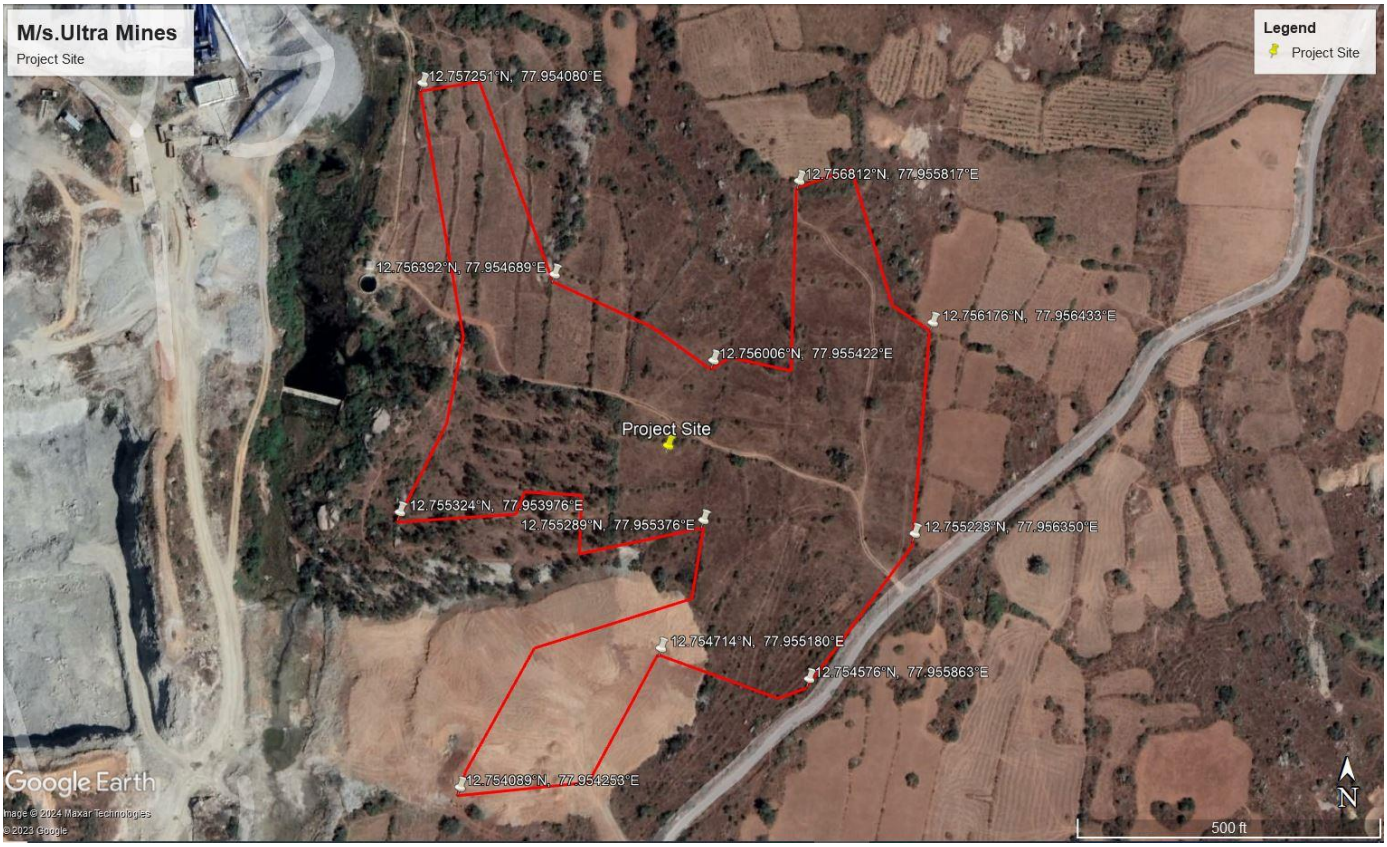


Figure 2: Google Image of the Project Site

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

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In m^3	Rough Stone in m^3	Gravel in m^3
XY-AB	I	110	49	2	10780		10780
	I	110	49	3	16170	16170	
	II	110	49	5	26950	26950	
	III	110	49	5	26950	26950	
	IV	110	49	5	26950	26950	
	VI	110	49	5	26950	26950	
	VII	110	49	5	26950	26950	
	VIII	110	49	5	26950	26950	
TOTAL				**40**	**215600**	**204820**	**10780**
X1Y1-CD	I	140	94	2	26320		26320
	I	90	64	3	17280	17280	
	II	140	94	5	65800	65800	
	III	140	94	5	65800	65800	
	IV	140	94	5	65800	65800	
	V	140	94	5	65800	65800	
	VI	140	94	5	65800	65800	
	VII	140	94	5	65800	65800	
	VIII	140	94	5	65800	65800	
	IX	140	94	5	65800	65800	
TOTAL				**45**	**570000**	**543680**	**26320**
X1Y1-EF	I	90	195	2	35100	…..	35100
	I	81	146	3	35478	35478	
	II	90	195	5	87750	87750	
	III	90	195	5	87750	87750	
	IV	90	195	5	87750	87750	
	V	90	195	5	87750	87750	
	VI	90	195	5	87750	87750	
	VII	90	195	5	87750	87750	

	VIII	90	195	5	87750	87750	
	IX	90	195	5	87750	87750	
	X	90	195	5	87750	87750	
TOTAL				**50**	**860328**	**825228**	**35100**
X2Y2-GH	I	78	52	2	8112		8112
	I	78	52	3	12168	12168	
	II	78	52	5	20280	20280	
	III	78	52	5	20280	20280	
	IV	78	52	5	20280	20280	
	V	78	52	5	20280	20280	
	VI	78	52	5	20280	20280	
	VII	78	52	5	20280	20280	
	VIII	78	52	5	20280	20280	
	IX	78	52	5	20280	20280	
	X	78	52	5	20280	20280	
TOTAL				**50**	**202800**	**194688**	**8112**
X3Y3-IJ	I	85	56	2	9520		9520
	I	85	56	3	14280	14280	
	II	85	56	5	23800	23800	
	III	85	56	5	23800	23800	
	IV	85	56	5	23800	23800	
	V	85	56	5	23800	23800	
	VI	85	56	5	23800	23800	
	VII	85	56	5	23800	23800	
	VIII	85	56	5	23800	23800	
TOTAL				**40**	**190400**	**180880**	**9520**
GRAND TOTAL					**2039128**	**1949296**	**89832**

Table 3. Mineable Reserves

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In m^3	Rough Stone in m^3	Gravel in m^3

XY-AB	I	100	32	2	6400		6400
	I	100	32	3	9600	9600	
	II	95	22	5	10450	10450	
	III	90	12	5	5400	5400	
TOTAL				**15**	**31850**	**25450**	**6400**
X1Y1-CD	I	133	74	2	19684		19684
	I	90	54	3	14580	14580	
	II	133	69	5	45885	45885	
	III	128	59	5	37760	37760	
	IV	123	49	5	30135	30135	
	V	118	39	5	23010	23010	
	VI	113	29	5	16385	16385	
	VII	108	19	5	10260	10260	
TOTAL				**35**	**197699**	**178015**	**19684**
X1Y1-EF	I	80	175	2	28000		28000
	I	71	136	3	28968	28968	
	II	75	170	5	63750	63750	
	III	70	160	5	56000	56000	
	IV	65	150	5	48750	48750	
	V	60	140	5	42000	42000	
	VI	55	130	5	35750	35750	
	VII	50	120	5	30000	30000	
	VIII	45	110	5	24750	24750	
	IX	40	100	5	20000	20000	
	X	30	90	5	13500	13500	
TOTAL				**50**	**391468**	**363468**	**28000**
X2Y2-EF	I	68	32	2	4352		4352
	I	68	32	3	6528	6528	
	II	63	22	5	6930	6930	
	III	58	12	5	3480	3480	
TOTAL				**15**	**21290**	**16938**	**4352**

X3Y3-IJ	I	65	36	2	4680		4680
	I	65	36	3	7020	7020	
	II	55	26	5	7150	7150	
	III	55	16	5	3600	3600	
TOTAL				**15**	**22450**	**17770**	**4680**
GRAND TOTAL					**664757**	**601641**	**63116**

Table 4. Year wise Production Plan

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In m^3	Rough Stone in m^3	Gravel in m^3
I	XY-AB	I	100	32	2	6400		6400
		I	100	32	3	9600	9600	
		II	95	22	5	10450	10450	
		III	90	12	5	5400	5400	
	X1Y1-CD	I	133	74	2	19684		19684
		I	90	54	3	14580	14580	
		II	133	69	5	45885	45885	
		III	128	59	5	37760	37760	
TOTAL						**149759**	**123675**	**26084**
II	X2Y2-GH	I	68	32	2	4352		4352
		I	68	32	3	6528	6528	
		II	63	22	5	6930	6930	
		III	58	12	5	3480	3480	
	X1Y1-EF	I	80	175	2	28000		28000
		I	71	136	3	28968	28968	
		II	75	170	5	63750	63750	
TOTAL						**142008**	**109656**	**32352**
III	X1Y1-EF	III	70	160	5	56000	56000	
	X3Y3-IJ	I	65	36	2	4680		4680
		I	65	36	3	7020	7020	
		II	55	26	5	7150	7150	

		III	45	16	5	3600	3600	
	X1Y1-EF	IV	65	150	5	48750	48750	
TOTAL						**127200**	**122520**	**4680**
IV	X1Y1-CD	IV	123	49	5	30135	30135	
		V	118	39	5	23010	23010	
	XIY1-EF	V	60	140	5	42000	42000	
		VI	55	130	5	35750	35750	
TOTAL						**130895**	**130895**	
V-YEAR	X1Y1-CD	VI	113	29	5	16385	16385	
		VII	108	19	5	10260	10260	
	XIYI-EF	VII	50	120	5	30000	30000	
		VIII	45	110	5	24750	24750	
		IX	40	100	5	20000	20000	
TOTAL						**101395**	**101395**	
GRAND TOTAL						**651257**	**588141**	**63116**

6. Mining

Opencast mining

The quarry operation is proposed to be carried 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 resources 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 32mm 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 4.0 KLD. Domestic water will be sourced from nearby Mensandoddi Village and other water will be source from nearby road tankers supply.

Table 5. Water Balance

Purpose	Quantity	Source
Drinking Water	1.0 KLD	Packaged Drinking water vendors available in Mensandoddi which is about 0.89 - E km from project area
Green belt	1.5 KLD	Other domestic activities through road tankers supply
Dust suppression	1.5 KLD	From road tankers supply
Total	**4.0 KLD**	

8. Manpower

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

Table 6. Man Power

1.	Highly Skilled	II nd Class Mines Manager	1No.
		Mine Geologist	1No.
		Blaster	1No.
2.	Semi-skilled	Driver	9 No's
		Hitachi Operator	1No.
3.	Unskilled	Musdoor / Labours	11 No's
	Total		**24 No's**

9. Solid Waste Management

Table 7 Solid Waste Management

S. No	Type	Quantity	Disposal Method
1	Organic	4.32 kg/day	Municipal bin including food waste
2	Inorganic	6.48 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	S.F. No	Extent	GO No. & Date	Lease period
1.	M/s. Sumukha Blue Metals & M. Sand	Shoolagiri/ Venkatesapuram	294	3.75.0	Rc. No. 216/2018/Mines, Dated:09.03.2018	30.04.2021 – 29.04.2031
2.	Thiru. V. Nagaraja, S/o Venkatappa Reddy	Shoolagiri/ Venkatesapuram	287/1	2.16.0	Rc. No. 478/2018/Mines, Dated:25.08.2018	19.02.2021 – 18.02.2031
3.	Tvl. Mars blue Metals	Shoolagiri/ Venkatesapuram	135 (Part)	3.00.0	Rc. No. 71/2016/Mines, Dated:19.06.2019	19.06.2019 – 18.02.2031

2) Details of abandoned/Old Quarries:

S. No.	Name of the lessee	Village	S.F. No	Extent	GO No. & Date	Lease period
--- Nil---						

3) Details of Proposed Quarries

S. No.	Name of the lessee	Village & Taluk	S.F. No	Extent	Rc.No & Date	Extent
1.	M/s. Ultra Mines Private Limited	Shoolagiri/ Venkatesapuram	133/1 (p), 133/2, 133/4, 134/1, 134/2	4.40.0	-	- Instant

The Total extent of the Existing / Lease expired / Proposed quarries is 13.31.0 Ha.

10. Land Requirement

The total extent area of the project is 4.40.0 Ha, Patta land in Venkatesapuram 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.	Quarrying Pit	Nil	2.95.0
2.	Infrastructure	Nil	0.02.0
3.	Roads	Nil	0.10.0
4.	Green Belt	Nil	1.17.0
5.	Drainage & Settling Tank	Nil	0.16.0
6.	Unutilized Area	4.40.0	Nil
	Total	**4.40.0**	**4.40.0**

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

S.No	Village	Direction	Distance in Kms	Population
1	Midithepalli	North	0.9 km	1287
2	Athimugam	East	1.3 km	4540
3	Punnagaram	Southeast	1.5 Km	766
4	Venkateshapuram	West	0.74 km	2873

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 ^{0}C

ii) Average Maximum Temperature. : 39 ^{0}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 (PM10), Sulphur Dioxide (SO2), Nitrogen Dioxide (NO2) were monitored and the results are summarized below.

The baseline levels of PM_{10} (57-39 µg/m³), $PM_{2.5}$ (27-15 µg/m³), SO_2 (13-4 µg/m³), NO_2 (29-10 µg/m³), all the parameters are well within the standards prescribed by National Ambient Air Quality during the study period from December 2022 to February 2023.

13.3 Noise Environment

The maximum Day noise and Night noise were found to be 59 dB(A) and 45 dB(A) respectively in in Sivaraman green Garden. The minimum Day Noise and Night noise were 40 dB(A) and 35 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 7.2 – 7.76.
- TDS value varied from 538 mg/l to 880 mg/l
- Hardness varied from 345 to 523 mg/l
- Chloride varied from 76 to 176 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 6.8 to 8.8 with organic matter 0.19 to 0.32 %. 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 Patta 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 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 440 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%	2200
Total		**2200**

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 3,06,37,820/-** 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

S. No.	Description	Cost
1	Fixed Asset Cost (Land cost, Labour Shed, Sanitary Facility, Fencing, Other Expenses)	Rs.1,90,37,820/-
2	Machinery Cost	Rs. 30,00,000/-
3	EMP Cost	Rs. 86,00,000/-
Total		**Rs. 3,06,37,820/-**

20. Corporate Environmental Responsibility

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

Table 13 CER Cost

S.No.	CER Activity	CER value (Rs)
1.	Government High School, Venkatesapuram – Provision of ➢ Smart board, ➢ Library, ➢ Environmental books for library (in Tamil language), ➢ Greenbelt facilities and ➢ Basic amenities such as safe drinking water, Hygienic Toilets facilities, furniture.	5,00,000/-
Total		**5,00,000/-**

21. Benefits of the Project

- There is 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 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 near vicinity.