Application Form For Environmental Clearance (Public Hearing)

April 2023

Application Form
(Draft EIA Report)

For

Proposed Rough stone Quarry – 2.00.0 Ha

at

S.F.No. 86 (Part – 3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State

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

Category of the Project: B1 Cluster Mining

Baseline Period: December 2022 - February 2023

Environmental Consultant & Laboratory details:

Ecotech Labs Pvt Ltd,

No 48, 2nd Main road,
South extension Ram Nagar,
Pallikaranai, Chennai - 600100.

Proponent details:

M/s. S.R. Enterprises,
D. No: 25, Shanthi Nagar,
West, 2nd Cross,
Hosur Taluk,
Krishnagiri
635 109

Date:

From
M/s. S.R. Enterprises,
D. No: 25 Shanthi Nagar,
West 2nd cross,
Hosur Taluk,
Krishnagiri – 635 109

To
The District Environmental Engineer
Tamilnadu Pollution Control Board,
Plot No:140A, SIPCOT Industrial Complex,
Hosur, Krishnagiri – 635 126.

Sir,

Sub: Request to conduct Public Hearing – Environmental Clearance for the "M/s. S.R. Enterprises Rough Stone Quarry" over a total extent of 2.00.00 Ha at S. F. Nos. 86 (Part-3) Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu – Reg

Ref: Letter No. SEIAA-TN/F. No. 9499/ ToR-1309/2022 Dated: 07.12.2022

Please find enclosed herewith the application of Draft EIA Report along with necessary enclosures towards seeking environmental clearance for the "M/s. S.R. Enterprises Rough Stone Quarry" over a total extent of 2.00.00 Ha at S. F. Nos. 86 (Part-3) Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu. In this regard, we had obtained the Terms of Reference from State Environmental Impact Assessment Authority (SEIAA) TamilNadu; vide reference mentioned above for conducting EIA studies. We wish to inform that the draft EIA report complying with all the conditions mentioned in the TOR has been prepared and the copies of the same are enclosed with this letter. With reference to the above, we kindly request the TNPCB to make the necessary arrangements for **Conducting the Public hearing for the Rough Stone Quarry.** With the above, we request the TNPCB to accept and process our application for conducting the Public Hearing at the earliest.

Thanking you
Yours Sincerely

Authorized Signatory
Enclosures: Draft EIA report

M/s. S.R. Enterprises,

D. No: 25 Shanthi Nagar,

West 2nd cross,

Hosur Taluk,

Krishnagiri – 635 109.

UNDERTAKING

We, M/s. S.R. Enterprises, undertaking that the Draft Environmental Impact Assessment (EIA) Report for Rough Stone Quarry over an extent of 2.00.0 Ha at S.F.No. 86 (Part-3) Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State under project category B1 and Schedule S.No.1(a)

ToR issued by the State Expert Appraisal Committee, TN vide Letter No. SEIAA-TN/F. No. 9499/ ToR-1309/2022 Dated: 07.12.2022.

I, hereby assure that all the information and data provided in the EIA report is accurate, true and correct and owns responsibility for the same.

Place: Krishnagiri

Date:

Yours faithfully

M/s. S.R. Enterprises

Plot No.48A, 2nd Main Road,
Ram Nagar, South Extension,
Pallikkaranai, Chennai - 600 100
GST NO. 33AADCE6103A2ZH
PAN NO. AADCE6103A

Eco Tech Labs Pvt Ltd

Cell No. 98400 87542
Email : info@ecotechlabs.in
Website : www.ecotechlabs.in
CIN : U74900TN2014PTC094895

UNDERTAKING

I, Dr. A. Dhamodharan, Managing Director confirms that this Draft EIA Report of Rough Stone Quarry over an extent of 2.00.0 Ha at S.F.No. 86 (Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State has been prepared at M/s. Ecotech Labs Pvt. Ltd., Chennai.

I also confirm that I shall be fully accountable for any miss-leading information mentioned in this Report.

Signature:

Name: Dr. A. Dhamodharan

Designation: Managing Director

Name of the EIA Consultant Organization: M/s. Ecotech Labs Pvt Ltd., Chennai.

NABET Certificate No: NABET/EIA/2124/SA 0147

Date: Place: Chennai

Declaration of Experts contributing to the EIA

Declaration by experts contributing to the EIA report for Rough Stone Quarry (minor mineral) mining project of M/s. S.R. Enterprises Rough Stone Quarry over a total extent of 2.00.0 Ha at S.F.No. 86 (Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State.

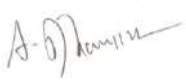
I, hereby certify that I was a part of the EIA team in the following capacity that developed the above EIA.

Project	New Rough Stone Quarry - 2.00.0 Ha
Type & Category	1 (a) Mining of Minerals
Project Proponent	M/s. S.R. Enterprises
Environment Consultant with their Accreditation Status	M/s. Eco Tech Labs Pvt. Ltd., QCI Accreditated
NABET Certificate No.	NABET/ EIA/2124/ SA 0147
EIA Coordinator Name **Signature** **Period of Involvement**	Dr. A. Dhamodharan (Mining of Minerals)   December 2022 to February 2023
Contact Information	**M/s. Eco Tech Labs Pvt. Ltd.** No. 48, 2nd Main Road, Ram Nagar South Extension Pallikaranai, Chennai - 600 100 Mobile: +91 9789906200 E-mail: dhamo@ecotechlabs.in

Functional Area Experts

The basic fact division that environment and laboratory are accredited by NABL and Ministry of Environment and Forests, India and by other international bodies, stand testimony to its emphasis.

S. No.	Functional areas	Name of the experts	Involvement (period and task)	Signature and date
1	AP	Mrs. K. Vijayalakshmi	1. Selection of Baseline Monitoring stations based on the wind direction. 2. Interpretation of Baseline data by comparing it with standards prescribed by CPCB against the type of area. 3. Identification of sources of air pollution and suggesting mitigation measures to minimize impact. ***Period: March 2022 – Till now***	
2	WP	Dr. A. Dhamodharan	1. Selection of baseline Monitoring Locations for Ground water analysis and also identifying nearest surface water to be studied. 2. Interpretation of baseline data collected 3. Identification of impacts based on the baseline study conducted and also to the ground water and nearby surface water due to the proposed project 4. Preparation of suitable and appropriate mitigation plan. ***Period: March 2022 – Till now***	
3	SHW	Dr. A. Dhamodharan	1. Identification of nature of solid waste generated 2. Categorization of the generated waste and estimating the quantity of waste to be generated based on the per capita basis. Identification of impacts of SHW on Environment 3. Suggesting suitable mitigation measures by recommending appropriate disposal method for each category of waste generated 4. Top soil and refuse management ***Period: March 2022 – Till now***	

4	SE	Mr. S. Pandian	1. Primary data collection through the census questionnaire 2. Obtaining Secondary data from authenticated sources and incorporating the same in EIA report. 3. Impact assessment & proposing suitable mitigation plan 4. CSR budget allocation by discussing with the local body and allotting the same for need based activity. ***Period: March 2022 – Till now*** ****INVOLVES PUBLIC HEARING***	
5	EB	Dr. A. Dhamodharan	1. Primary data collection through field survey and sheet observation for ecology and biodiversity 2. Secondary Collection through various authenticated sources 3. Prediction of anticipated impacts and suggesting appropriate mitigation measures. ***Period: March 2022 – Till now***	
6	HG	Dr. T. P. Natesan	1. Study of existing surface drainage arrangements in the core and buffer zone, impact due to mining on these drainage courses and suggestion of mitigative measures 2. Determination of groundwater use pattern, development of rainwater harvesting program. Storm water management through garland drainage system. ***Period: March 2022 – Till now***	
7	GEO	Dr. T. P. Natesan	1. Field survey for assessing regional and local geology, aquifer distribution, Determination of groundwater use pattern, development of rainwater harvesting program. ***Period: March 2022 – Till now***	

8	SC	Dr. A. Dhamodharan	1. Interpretation of baseline report 2. Identification of possible impacts on soil, prediction of soil conservation and suggesting suitable mitigation measures. ***Period: March 2022 – Till now***	
9	AQ	Mrs. K. Vijayalakshmi	1. Collection of Meteorological data for the baseline study period 2. Plotting wind rose plot and thereby selecting the monitoring locations based on the wind pattern 3. Estimation of sources of air emissions and air quality modeling is done 4. Interpretation of the results obtained 5. Identification of the impacts and suggesting suitable mitigation measures. ***Period: March 2022 – Till now***	
10	NV	Mrs. K. Vijayalakshmi	1. Selection of monitoring locations 2. Interpretation of baseline data 3. Prediction of impacts due to noise pollution and suggestion of appropriate mitigation measures ***Period: May 2022 – Till now***	
11	LU	Dr. T. P. Natesan	1. Collection of Remote sensing satellite data to study the land use pattern. 2. Primary field survey and limited field verification for land categorization in the study area 3. Preparation of Land use map using Satellite data for 10km radius around the project site. ***Period: March 2022 – Till now***	
12	RH	Mrs. K. Vijayalakshmi	1. Identification of the risk 2. Interpreting consequence contours 3. Suggesting risk mitigation measures ***Period: March 2022 – Till now***	

Declaration by the Head of the accredited consultant organization/ authorized person

I, Dr. A. Dhamodharan, hereby confirm that the above-mentioned experts prepared the EIA report of mining project at S.F.No. 86 (Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State

I also confirm that the consultant organization shall be fully accountable for any misleading information mentioned in this statement.

Signature: 

Name: Dr.A. Dhamodharan

Designation: Managing Director

Name of the EIA consultant organization: M/s. Eco Tech Labs Private Limited

NABET Certificate No: NABET/ EIA/2124/ SA 0147

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ABBREVIATION

LU –Land use

AP – Air Pollution monitoring, prevention and control

AQ- Meteorology, Air quality modeling and prediction

WP – Water pollution monitoring, prevention and control

EB- Ecology and Biodiversity

NV- Noise & Vibration

SE- Socio-economics

HG- Hydrology, ground water and water conservation

GEO –Geology

RH – Risk assessment and hazards management

SHW –Solid and Hazardous waste management

SC- Soil conservation

EXECUTIVE SUMMARY

1. Project Background:

The Proposed project is in Government Poramboke Land having total extent area of 2.00.00 Ha, located at S.F.No. 86 (Part-3) of Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District and Tamil Nadu. The category of project is B1, it is an existing rough stone 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 42 m below ground level (2 m Topsoil + 40 m Rough Stone) Surface Ground Level Above Height is 10m and Surface Ground Level Below Depth 32m. The Total Geological reserve is about 6,91,920 m^3 of Rough Stone and 40,176 m^3 of Topsoil. The Mineable Reserves is about 4,06,265 m^3 of Rough Stone and 38,740 m^3 of Topsoil. The year wise production/recoverable resources of rough stone and Gravel is about 4,06,265 m^3 and 38,740m^3 for 5 years.

The Mining Plan was approved by the Deputy Director, Geology & Mining, Krishnagiri vide letter Rc.No.546/2022 Mines dated 04.05.2022. 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 the radius of 15 km.

2. Nature & Size of the Project

The Rough Stone Quarry over an extent of 2.00.00 Hectares land is located Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District.

Mineral intends to quarry : Rough stone.

District : Krishnagiri

Taluk : Shoolagiri

Village : Venkatesapuram

S. F. Nos. : 86 (Part-3)

Extent : 2.00.00 Hectares

Table 1: Brief Description of the Project

S. No	Particulars	Details
1	Latitude	12° 45' 19.41"N to 12° 45' 14.07"N
2	Longitude	77° 56' 40.17"E to 77° 56' 34.69"E
3	Site Elevation above MSL	The altitude of the area is Maximum 868m and Minimum 858m above MSL.
4	Topography	Hilly terrain
5	Land use of the site	Government Poramboke land
6	Extent of lease area	2.00.00 Ha
7	Nearest highway	MDR 422 – Berigai to Shoolagiri Road – 4.01Km - S NH 48 – Hosur to Krishnagiri Road – 8.25Km - SE
8	Nearest railway station	Hosur Railway Station – 13.64 km - SW
9	Nearest airport	Kempagowda International Airport – 54.09 km - N
10	Nearest town / city	Town - Shoolagiri – 11.75 km - SE City - Hosur – 12.82 km - W District - Krishnagiri – 35.73 km - SE
11	Rivers / Canal	• Ponnaniyar River – 4.85Km - SW
12	Lake	• Muthali lake – 3.98Km – W • Peddakullu lake – 4.92Km – W • Bukkasagaram lake – 3.54Km – S • Doraipalli lake – 5.20Km – SSE • Chennathur lake – 10.20Km – SW • Lake – 4.13Km – W

		• Berkai lake – 6.57Km – NE • Ponnaiyar River – 4.85Km – SW • Kelavarapelli Reservoir – 7.61Km - W
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	• Berigai Extension RF – 1.02Km – SE • Sanamavu RF – 4.49Km – SW • Meditepalli RF – 2.23Km – N • Settipalli RF – 8.25Km – SE • Reserve forest – 3.31Km - SW
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

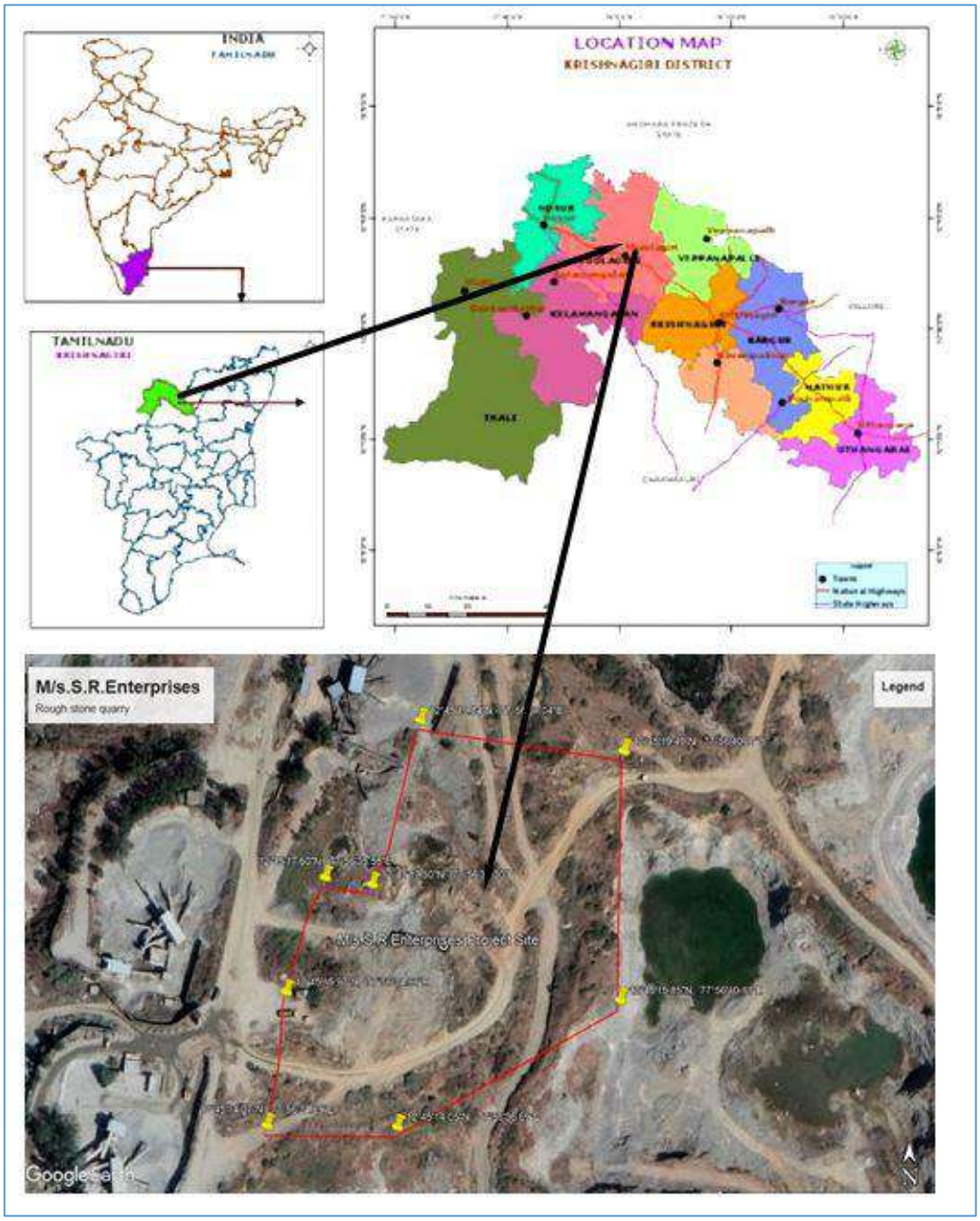


Figure 2: Google Image of the Project Site

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 (Cu.m.)**	**Recoverable Reserve in Cu.m (100%)**	**Topsoil (Gravel) in Cu.m.**
XY-AB	I	81	104	2			16848
	II	81	26	5	10530	10530	

	III	81	78	5	31590	31590	
	IV	81	104	5	42120	42120	
	V	81	104	5	42120	42120	
	VI	81	104	5	42120	42120	
	VII	81	104	5	42120	42120	
	VIII	81	104	5	42120	42120	
	IX	81	104	5	42120	42120	
Total					**294840**	**294840**	**16848**
XY-AB	I	81	144	2			23328
	II	19	36	5	3420	3420	
	III	81	108	5	43740	43740	
	IV	81	144	5	58320	58320	
	V	81	144	5	58320	58320	
	VI	81	144	5	58320	58320	
	VII	81	144	5	58320	58320	
	VIII	81	144	5	58320	58320	
	IX	81	144	5	58320	58320	
Total					**397080**	**397080**	**23328**
Grand Total					**691920**	**691920**	**40176**

Table 3. Mineable Reserves

MINEABLE RESERVES							
Section	**Bench**	**L (m)**	**W (m)**	**D (m)**	**Volume in (Cu.m.)**	**Recoverable Reserve in Cu.m (100%)**	**Topsoil (Gravel) in Cu.m.**
XY-AB	I	149	130	2			38740
	II	147	53	5	38955	38955	
	III	137	108	5	73980	73980	
	IV	127	118	5	74930	74930	
	V	117	108	5	63180	63180	
	VI	107	98	5	52430	52430	
	VII	97	88	5	42680	42680	

	VIII	87	78	5	33930	33930	
	IX	77	68	5	26180	26180	
Total					**406265**	**406265**	**38740**

Table 4. Year wise Production Plan

YEARWISE DEVELOPMENT AND PRODUCTION								
YEAR	**Section**	**Bench**	**L (m)**	**W (m)**	**D (m)**	**Volume in (m^3)**	**Recoverable Reserves in m^3 (100%)**	**Topsoil (Gravel) in m^3**
I-YEAR	XY-AB	I	149	130	2			38740
		II	147	53	5	38955	38955	
		III	137	108	5	73980	73980	
II-YEAR		IV	127	118	5	74930	74930	
III-YEAR		V	117	108	5	63180	63180	
IV-YEAR		VI	107	98	5	52430	52430	
		VII	97	88	5	42680	42680	
V-YEAR		VIII	87	78	5	33930	33930	
		IX	77	68	5	26180	26180	
Total						**406265**	**406265**	**38740**

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 Venkatesapuram 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 Venkatesapuram which is about 0.82 - W km from project area
Green belt	0.5 KLD	Other domestic activities through road tankers supply
Dust suppression	0.5 KLD	From road tankers supply
Total	**2.0 KLD**	

8. Manpower

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

Table 6. Man Power

1.	Skilled	Operator	2 No.
		Mechanic	1 No.
		Blaster/Mat	1 No.
2.	Semi – skilled	Driver	2 Nos
3.	Unskilled	Musdoor / Labors	5 Nos
		Cleaners	3 Nos
		Office Boy	1No
4.	Management & Supervisory staff		3 Nos
	Total		**18 Nos**

9. Solid Waste Management

Table 7 Solid Waste Management

S. No	Type	Quantity	Disposal Method
1	Organic	3.24 kg/day	Municipal bin including food waste
2	Inorganic	4.86 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 Owner	Village & Taluk	Mineral	S.F. No	Extent	GO No. & Date	Lease Period
1.	……NIL……						

2) Details of abandoned/Old Quarries:

S. No.	Name of the lessee	Village	S.F.No	Extent	GO No. & Date	Lease period
1.	M/s. R.A. Blue Metals, No.50, Radhalakshmi Nilaya, Devasandra Main Road, Bangalore - 560036	Venkatesapuram village, Shoolagiri Taluk	86 (Part - 4)	4.00.0	Rc.No. 68/2016/ Mines Dated:10.08.2016	22.08.2016 to 21.08.2021
2.	Thiru.P.Selvaraju, S/o.Periyasamy, No.57-B-1, Kalliyannan Nagar, Kumarapalayam, Thiruchengodu, Namakkal District.	Venkatesapuram village, Shoolagiri Taluk	86 (Part - 6)	2.00.00	Rc.No. 69/2016/ Mines Dated:13.10.2016	17.10.2016 to 16.10.2021

3.	Thiru.J.Shanmugam, S/o. Jaganathan, M/s. S.S. Blue metals, No.4, Pillaiyar Koil street, Marandahalli Post, Palacode taluk, Dharmapuri Dist.	Venkatesapuram village, Shoolagiri Taluk	86 (Part - 7)	2.00.00	Rc.No. 70/2016/ Mines Dated:28.09.2016	03.10.2016 to 02.10.2016

3) Details of Proposed Quarries

S. No.	Name of the lessee	Village & Taluk	Mineral	S.F. No	Extent	GO No. & Date	Lease period
1.	S.R.Enterprises, No.25, Shanthi nagar, west 2nd cross, Hosur taluk, Krishnagiri Dist	Venkatesapuram village, Shoolagiri Taluk	Rough stone	86 (Part-3)	2.00.0	Rc.No. 546/2022/ Mines Dated:04.05. 2022	Instant proposal
	Thiru.B.Elavarasan, S/o. Baskaran, D.No. 3/83, T.Thurinjihalli village, Thenkaraikottai post, Pappireddipatti taluk, Dharmapuri Dist.	Venkatesapuram village, Shoolagiri Taluk	Rough stone	86 (Part-5)	4.20.0	Rc.No. 1260/2018/ Mines Dated:02.01. 2018	Precise area given
3.	Thiru.A.Brian Balachander, S/o Antony Richard Bhaskar, D.No. 2/29, 1st main road, padi, Thiruvallur, Chennai – 600 050	Venkatesapuram village, Shoolagiri Taluk	Rough stone	86 (Part-3)	2.00.00	Rc.No. 546/2022/ Mines Dated:04.05. 2022	Precise area given

The Total extent of the Existing / Lease expired / Proposed quarries are 17.70.0 Ha

10. Land Requirement

The total extent area of the project is 2.00.00 Ha, Government Poramboke 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	0.14.0	1.51.0
2.	Infrastructure	Nil	0.01.0
3.	Roads	0.01.0	0.01.0
4.	Green Belt	Nil	0.47.0
5.	Unutilized Area	1.85.0	Nil
	Total	**2.00.0**	**2.00.0**

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

SL. NO.	DIRECTION	VILLAGE	POPULATION	DISTANCE
1	NW	Alnatham	327	1.90 Km
2	S	Bukkasagaram	2126	3.12 Km
3	E	Mensandoddi	358	2.18 Km
4	W	Venkatesapuram	2873	0.82 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 $^{\circ}$C

ii) Average Maximum Temperature : 3 9 $^{\circ}$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} (57-33 µg/m³), $PM_{2.5}$ (29-14 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 43 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 7.10 – 7.76.
- TDS value varied from 538 mg/l to 880 mg/l
- Hardness varied from 345 to 523 mg/l
- Chloride varied from 74.1 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 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 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 200 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
Total		**1000**

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 4,73,31,002/-** 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	Rs.3,25,90,000/-
2	Operational and Fencing Cost	Rs. 30,00,000/-
3	EMP Cost	Rs. 81,41,002/-
	Total	**Rs. 4,37,31,002/-**

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 ➢ Renovation of Auditorium, ➢ Renovation of Gents Toilet, ➢ Sports equipment, ➢ Environmental books for library (in Tamil language), ➢ Greenbelt facilities and ➢ Basic amenities such as safe drinking water, 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 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.

1 Introduction

1.1 PREAMBLE

Environment Impact Assessment (EIA) is a process used to identify the environmental, social & economic impacts of a project prior to decision making. It aims to predict environmental impacts at an early stage of project planning and design, find ways and means to reduce adverse impacts, shape projects to suit the local environment and present the prediction options to the proponent. By using EIA, both environmental & economic benefits can be achieved. By considering environmental effects - prediction & mitigation, early benefits in project planning, protection of the environment, optimum utilization of resources, thus saving overall time & cost of the project.

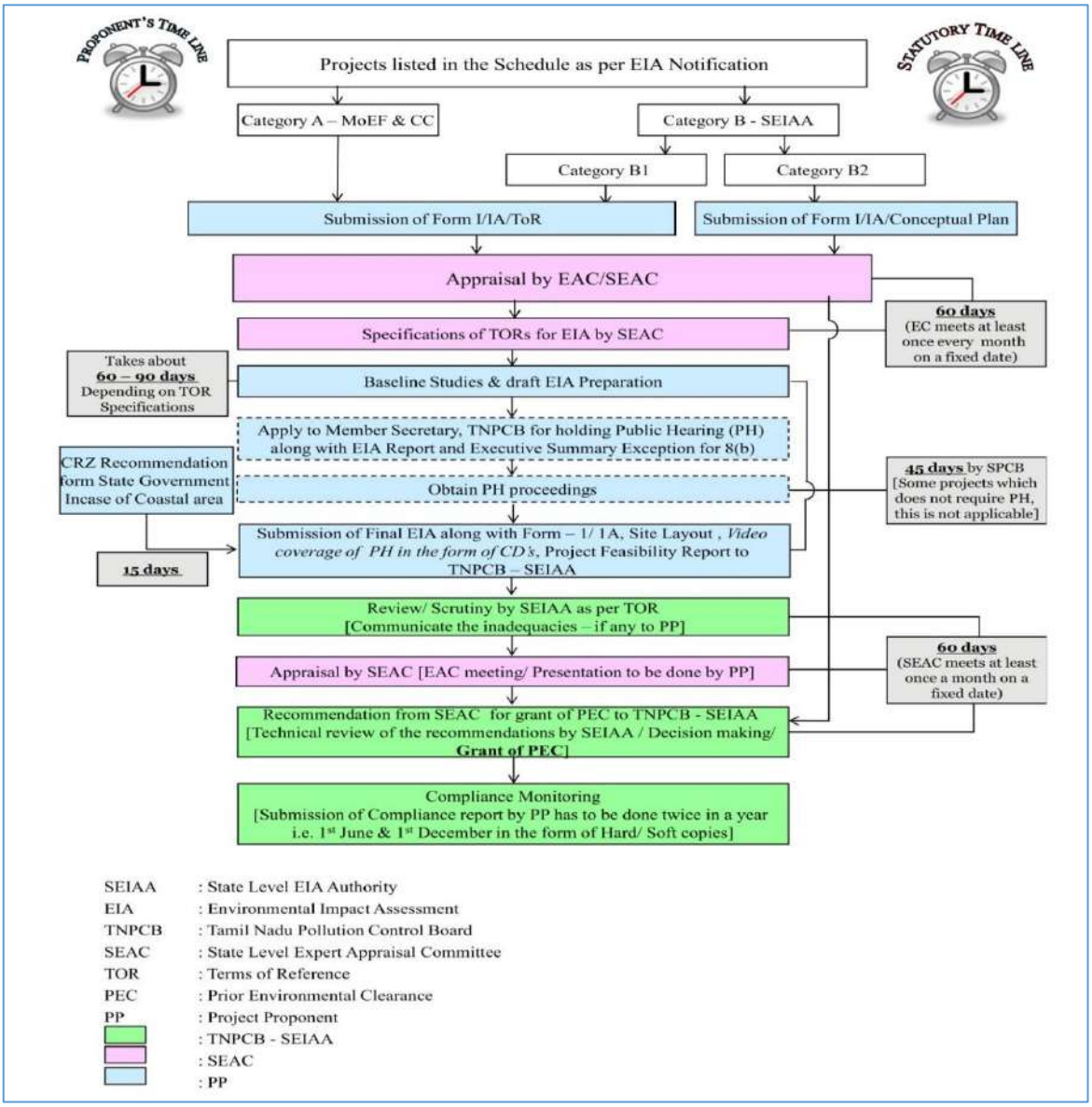
1.2 GENERAL INFORMATION ON MINING OF MINERALS

The Entire district is underlain by the rocks belonging to hard crystalline rock masses of Archaean age. The Archaean rocks in this area are represented by rocks of eastern Ghat complex comprising charnockites, Migmatite complex of composite gneiss. The district is covered by metamorphic crystalline rocks of charnockite, composite gneiss of Archaean age. These rocks are highly metamorphosed and have been subjected to sever folding, crushing and faulting. Charnockites group is occupied by North and Southern part of the basin. The other rock type is encountered by composite granitic gneiss of Epidote hornblende biotite gneiss and hornblende biotite gneiss are occupy in the middle portion of the basin. Charnockite group occupies the high ground as well as plain and it is poorly weathered and jointed. They are generally black grey to dark grey in colour medium to coarse grained texture, and generally massive and un-foliated. A gneissic rock occurs as linear bands in the middle portion of the area and is highly migmatite. Mostly, micaceous with bands of granites, pegmatites, quartz veins the rock is well foliated. The Hornblende biotite gneiss forms the country rock of the area and epidote hornblende gneiss (Proterozoic age) occurs as small isolated outcrops. The crystalline formations are charnockite, granitic gneiss of Archean age have been intruded by dolerite dykes and pegmatite veins. These rocks are highly metamorphosed and have been subjected to very severe folding, crushing and faulting. The crystalline rocks are subjected to tectonic activities under various orogenic cycles resulting in the development of secondary structures such as joints. fissures and cleavages. The intensity of weathering varies from place to place.

1.3 ENVIRONMENTAL CLEARANCE

As per EIA Notification, 2006 and its subsequent amendments (O.M vide No.F.No.L-11011/175/2018-IA-II(M) Govt of India MOEF&CC on December 12th 2018) project comes under category B1 cluster & schedule 1(a) under item 1

The proposed project is categorized under Category "B1" 1(a) (Cluster) - {Mining of Minerals} as the 500m radius area is more than 5 Ha including the mine lease area. Hence, the project will be considered at SEAC, Tamil Nadu.



1.4 TERMS OF REFERENCE (TOR)

The terms of Reference have been issued by SEAC TN vide Letter No. SEIAA-TN/F. No. 9499/ ToR-1309/2022 Dated: 07.12.2022. 43 additional ToR points were recommended by SEAC TN in addition to the Standard ToR Points. The replies for the same were addressed in this report.

1.5 POST ENVIRONMENTAL CLEARANCE MONITORING

1.5.1 *Methodology adopted*

Post project monitoring will be carried out as per conditions stipulated in environmental clearance letter issued by SEIAA, consent issued by SPCB as well as according to CPCB guidelines. The lease area is considered as core zone and the area lying within 10 km radius from the lease boundary is considered as buffer zone, where some impacts may be observed on physical and biological environment. In the buffer zone slight impact may be observed and that too is occasional.

Table 1-1: Post Environmental Clearance Monitoring

S. No.	Description	Frequency of Monitoring
1.	Ambient Air Quality Monitoring	Quarterly/ Half Yearly
2.	Water level & Quality Monitoring	Quarterly/ Half Yearly
3.	Noise Level Monitoring	Quarterly/ Half Yearly
4.	Soil Quality Monitoring	Yearly
5.	Medical Check-up	Yearly

1.6 GENERIC STRUCTURE OF THE EIA DOCUMENT

Chapter 1: Introduction. This chapter contains the general information on the mining of minerals, major sources of environmental impacts in respect of mining projects and details of environmental clearance process.

Chapter 2: Project Description. In this chapter the proponent should also furnish detailed description of the proposed project, such as the type of the project, need for the project, project location, layout, project activities during construction and operational phases, capacity of the project, project operation i.e., land availability, utilities (power and water supply) and infrastructure facilities such as roads, railways, housing and other requirements. If the project site is near a sensitive area it is to be mentioned clearly why an alternative site could not be considered. The project implementation schedule estimated cost of development as well as operation etc. should also be included.

Chapter 3: Analysis of Alternatives (Technology and Site). This chapter gives details of various alternatives both in respect of location of site and technologies to be deployed, in case the initial scoping exercise considers such a need.

Chapter 4: Description of Environment. This chapter should cover baseline data in the project area and study area.

Chapter 5: Impact Analysis and mitigation measures. This chapter describes the anticipated impacts on the environment and mitigation measures. The method of assessment of impacts including studies carried out, modelling techniques adopted to assess the impacts where pertinent should be elaborated in this chapter. It should give the details of the impacts on the baseline parameters, both during the construction and operational phases and suggests the mitigation measures to be implemented by the proponent.

Chapter 6: Environmental Monitoring Program. This chapter should cover the planned environmental monitoring program. It should also include the technical aspects of monitoring the effectiveness of mitigation measures.

Chapter 7: Additional Studies. This chapter should cover the details of the additional studies required in addition to those specified in the ToR and which are necessary to cater to more specific issues applicable to the particular project.

Chapter 8: Project Benefits. This chapter should cover the benefits accruing to the locality, neighborhood, region and nation as a whole. It should bring out details of benefits by way of improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits.

Chapter 9: Environmental Cost Benefit Analysis. This chapter should cover on Environmental Cost Benefit Analysis of the project.

Chapter 10: Environmental Management Plan. This chapter should comprehensively present the Environmental Management Plan (EMP), which includes the administrative and technical setup, summary matrix of EMP, the cost involved to implement the EMP, both during the construction and operational phase and provisions made towards the same in the cost estimates of project construction and operation. This chapter should also describe the proposed post-monitoring scheme as well as inter-organizational arrangements for effective implementation of the mitigation measures.

Chapter 11: Summary and Conclusions. This chapter gives the summary of the full EIA report condensed to ten A-4 size pages at the maximum. It should provide the overall justification for implementation of the project and should explain how the adverse effects have been mitigated.

Chapter 12: Disclosure of Consultants. This chapter should include the names of the consultants engaged with their brief resume and nature of consultancy rendered.

1.7 DETAILS OF PROJECT PROPONENT

Project Proponent : M/s. S.R. Enterprises

Status of the Proponent : Partnership Firm

Proponent's Name & Address : M/s. S.R. Enterprises,
D.No: 25, Shanthi Nagar,
West, 2nd Cross, Hosur Taluk,
Krishnagiri – 635 109.

1.8 BRIEF DESCRIPTION OF THE PROJECT

1.8.1 *Project Nature, Size & Location*

As per EIA Notification, 2006 and its subsequent amendments (O.M vide No.F.No.L-11011/175/2018-IA-II(M) Govt of India MOEF&CC on December 12th, 2018) project comes under category B1 cluster & schedule 1(a) under item 1.

Proposed proposal pertains to Rough stone mining project by mechanized open cast method on allotted mine lease area at Venkatesapuram Village, Shoolagiri Taluk of Krishnagiri District, Tamil Nadu. It is an elevated terrain. The total allotted mine lease for the proposed project is 2.00.00 Ha with their maximum production capacity i.e., 4,06,265 m^3 of Rough Stone and 38,740m^3 of Topsoil.

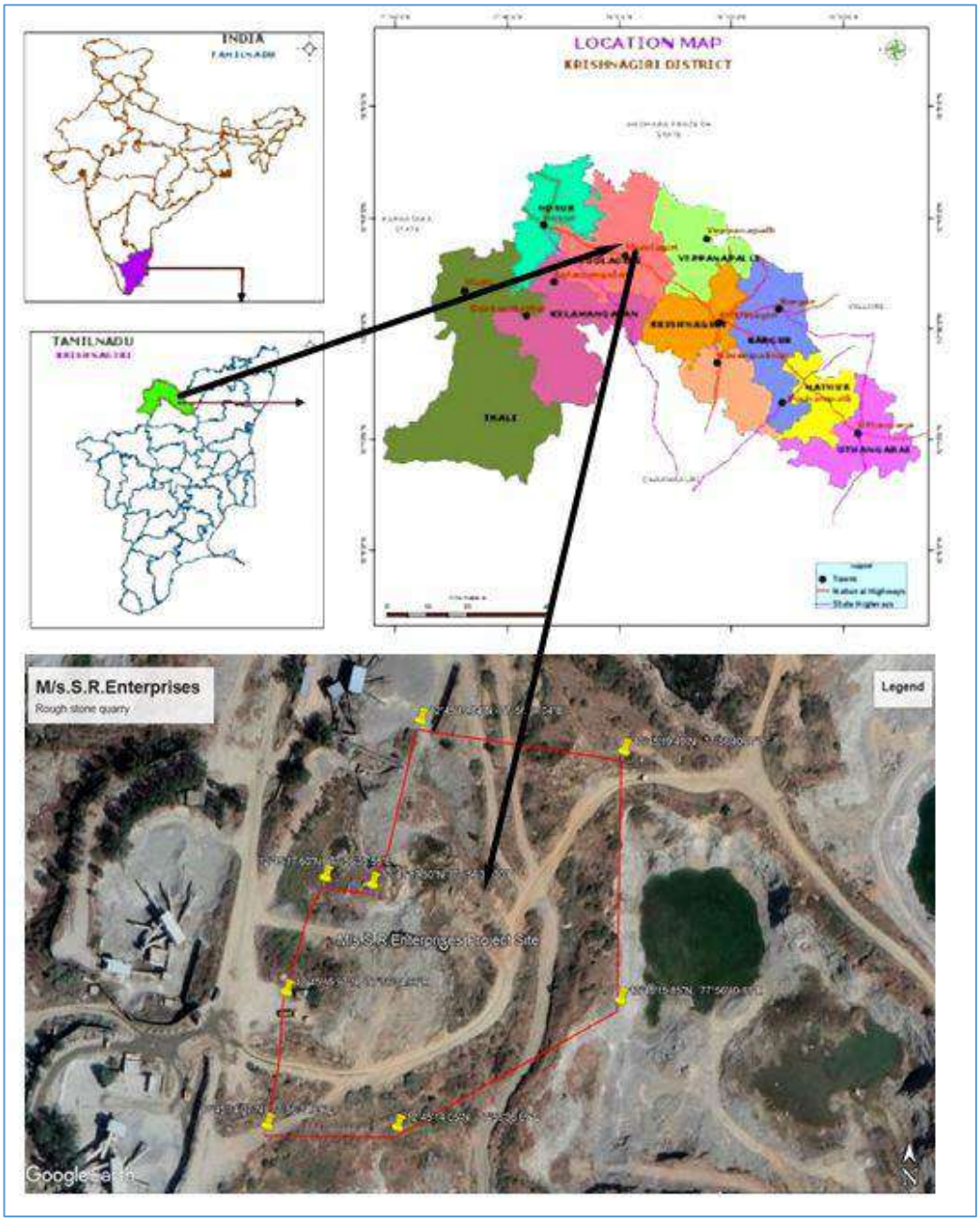


Figure 1.1: Location Map of the Project site

2 Project Description

This chapter furnishes detailed description of the proposed project, such as the type of the project, need for the project, project location, layout, project activities during mining, capacity of the project, project operation i.e., land availability, utilities (power and water supply) and infrastructure facilities such as roads, railways, housing and other requirements. The project implementation schedule estimated cost for carrying out entire mining activity is included.

2.1 GENERAL

Proposed proposal pertains to Rough stone mining project by open cast mechanized method on allotted mine lease area at Venkatesapuram Village, Shoolagiri Taluk of Krishnagiri District, Tamil Nadu. It is a hilly terrain. We have obtained a fresh mining plan from Department of Geology and Mining, Krishnagiri District for 2.00.00 Ha land area in the S.F.Nos. 86 (Part-3) for a proposed mining depth of 42m Topsoil 2m + Rough stone 40m. (Surface Ground Level Above Height is 10m and Surface Ground Level Below Depth is 32m). and five years production of 4,06,265 m^3 of Rough Stone and 38,740m^3 of Topsoil.

Type of the project:

As per EIA Notification, 2006 and its subsequent amendments (O.M vide No.F.No. L-11011/175/2018-IA-II(M) Govt of India MOEF&CC on December 12th, 2018) project comes under category B1 cluster & schedule 1(a) under item 1. The project required to be appraised at state level by State Environment Impact Assessment Authority, Tamil Nadu. Environment Clearance study will involve preparation of draft EIA report on the basis of baseline & impact assessment study is carried out. Also, before appraisal, under 7(III) of EIA notification 2006, the project involves the Public Consultation and the same will be conducted under SPCB (TN) in Krishnagiri District. The proceedings of the same will be incorporated in the Final EIA Report.

The mines within 500m radius from the project site is listed below.

Table 2-1: Quarry within 500m Radius

1) Details of Existing quarries:

S. No.	Name of the Owner	Village & Taluk	Mineral	S.F. No	Extent	GO No. & Date	Lease Period
1.	……NIL……						

2) Details of abandoned/Old Quarries:

S. No.	Name of the lessee	Village	S.F. No	Extent	GO No. & Date	Lease period
1.	M/s. R.A. Blue Metals, No.50, Radhalakshmi Nilaya, Devasandra Main Road, Bangalore - 560036	Venkatesapuram village, Shoolagiri Taluk	86 (Part - 4)	4.00.0	Rc.No. 68/2016/ Mines Dated:10.08.2016	22.08.2016 to 21.08.2021
2.	Thiru.P.Selvaraju, S/o.Periyasamy, No.57-B-1, Kalliyannan Nagar, Kumarapalayam, Thiruchengodu, Namakkal District.	Venkatesapuram village, Shoolagiri Taluk	86 (Part - 6)	2.00.00	Rc.No. 69/2016/ Mines Dated:13.10.2016	17.10.2016 to 16.10.2021
3.	Thiru.J.Shanmugam, S/o. Jaganathan, M/s. S.S. Blue metals, No.4, Pillaiyar Koil street, Marandahalli Post, Palacode taluk, Dharmapuri Dist.	Venkatesapuram village, Shoolagiri Taluk	86 (Part - 7)	2.00.00	Rc.No. 70/2016/ Mines Dated:28.09.2016	03.10.2016 to 02.10.2016

3) Details of Proposed Quarries

S. No.	Name of the lessee	Village & Taluk	Mineral	S.F. No	Extent	GO No. & Date	Lease period
1.	S.R.Enterprises, No.25, Shanthi nagar, west 2nd cross, Hosur taluk, Krishnagiri Dist	Venkatesapuram village, Shoolagiri Taluk	Rough stone	86 (Part-3)	2.00.0	Rc.No. 546/2022/ Mines Dated:04.05. 2022	Instant proposal
2.	Thiru.B.Elavarasan, S/o. Baskaran, D.No. 3/83, T.Thurinjihalli village, Thenkaraikottai post, Pappireddipatti taluk, Dharmapuri Dist.	Venkatesapuram village, Shoolagiri Taluk	Rough stone	86 (Part-5)	4.20.0	Rc.No. 1260/2018/ Mines Dated:02.01. 2018	Precise area given
3.	Thiru.A.Brian Balachander, S/o Antony Richard Bhaskar, D.No. 2/29, 1st main road, padi, Thiruvallur, Chennai – 600 050	Venkatesapuram village, Shoolagiri Taluk	Rough stone	86 (Part-3)	2.00.00	Rc.No. 546/2022/ Mines Dated:04.05. 2022	Precise area given

The Total extent of the Existing / Lease expired / Proposed quarries are 17.70.0 Ha

2.1.1 *Need for the project:*

The Entire district is underlain by the rocks belonging to hard crystalline rock masses of Archaean age. The Archaean rocks in this area are represented by rocks of eastern Ghat complex comprising charnockites, Migmatite complex of composite gneiss. The district is covered by metamorphic crystalline rocks of charnockite, composite gneiss of Archaean age. These rocks are highly metamorphosed and have been subjected to sever folding, crushing and faulting. Charnockites group is occupied by North and Southern part of the basin. The other rock type is encountered by composite granitic gneiss of Epidote hornblende biotite gneiss and hornblende biotite gneiss are occupy in the middle portion of the

basin. Charnockite group occupies the high ground as well as plain and it is poorly weathered and jointed. They are generally black grey to dark grey in colour medium to coarse grained texture, and generally massive and un-foliated. A gneissic rock occurs as linear bands in the middle portion of the area and is highly migmatite. Mostly, micaceous with bands of granites, pegmatites, guartz veins the rock is well foliated. The Hornblende biotite gneiss forms the country rock of the area and epidote hornblende gneiss (Proterozoic age) occurs as small isolated outcrops. The crystalline formations are charnockite, granitic gneiss of Archean age have been intruded by dolerite dykes and pegmatite veins. These rocks are highly metamorphosed and have been subjected to very severe folding, crushing and faulting. The crystalline rocks are subjected to tectonic activities under various orogenic cycles resulting in the development of secondary structures such as joints. fissures and cleavages. The intensity of weathering varies from place to place.

2.2 BRIEF DESCRIPTION OF THE PROJECT

Table 2-2 Salient Features of the Project

S. No.	Description	Details
1	Project Name	Rough Stone Quarry-2.00.00 ha
2	Proponent	M/s. S.R. Enterprisres
3	Mining Lease Area Extent	2.00.00Ha
4	Location	S.F.Nos. 86 (Part-3) Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District.
5	Latitude	12° 45' 19.41"N to 12° 45' 14.07"N
6	Longitude	77° 56' 40.17"E to 77° 56' 34.69"E
7	Topography	Hilly terrain
8	Site Elevation above MSL	The altitude of the area is Maximum 868m and Minimum 858m above MSL.
9	Topo sheet No.	57- H/14
10	Minerals of Mine	Rough Stone Quarry
11	Proposed production of M	4,06,265 m^3 of Rough Stone & 38,740 m^3 of Topsoil
12	Ultimate depth of Mining	42 m (2m Topsoil + 40 Rough stone) 10m AGL + 32m BGL

13	Method of Mining	Open cast, mechanized mining
14	Water demand	2.0 KLD
15	Source of water	Water will be supplied through tankers supply
16	Manpower	18 Nos.
17	Mining Lease	Precise Area Communication Letter received from District Collector, Krishnagiri vide letter Rc.No.546/2022 Mines dated 04.05.2022
18	Mining Plan Approval	Mining Plan was approved by the Deputy Director, Dept. of Geology & Mining, Krishnagiri vide letter Rc.No.546/2022 Mines dated 29.06.2022
19	Production details	Geological resources: 6,91,920m^3 of Rough stone & Proposed year wise recoverable reserves: 4,06,265 m^3 of Rough Stone
20	Boundary Fencing	10 m barrier all along the boundary Fencing will be provided.
21	Disposal of overburden	The entire lease area covers 2.0m of Topsoil and estimated quantity of Topsoil is 38,740m^3. Topsoil formation will be removed and transported to the needy users, only after obtaining permission and paying necessary seigniorage fees to the Government.
22	Ground water	The ground Water Level is noticed at the depth of 70m below Ground Level by monitoring nearby bore hole, Mining depth taken as 42m (Surface Ground Level Above Height 10m & Surface Ground Level Below Depth 32m). Now, the proposed quarry depth is above the water table. Hence, quarrying may not affect the ground water.

23	Habitations within 300m radius of the Project Site	There is no Habitation within 300m radius of the project site.
24	Drinking water	Water will be supplied through tankers from Venkatesapuram village which is 0.82 Km of the project area

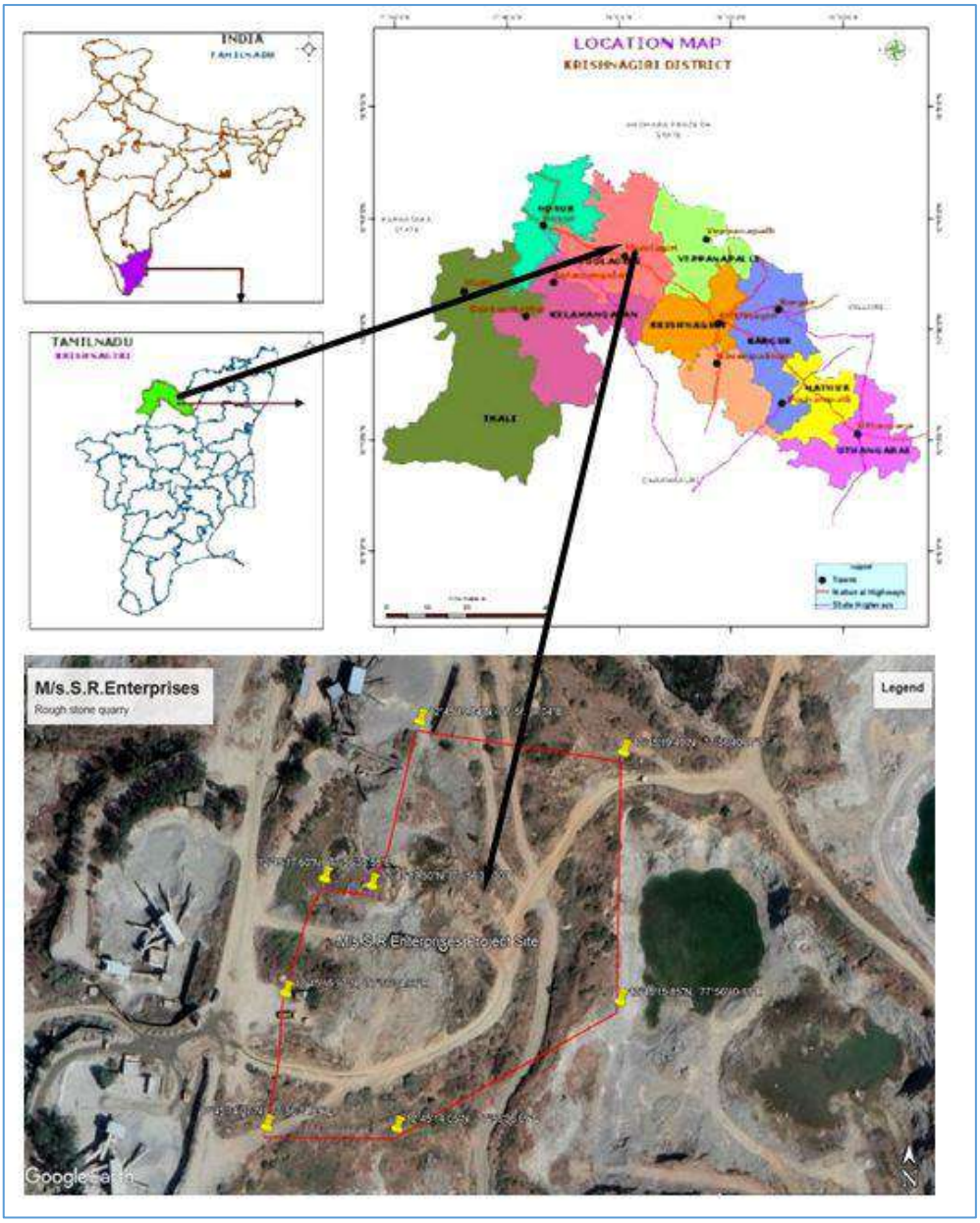


Figure 2.1: Location Map of the Project Site

Figure 2.2: Google Earth Image and Coordinates of the Project Site

2.2.1 *Site Connectivity:*

The site is connected to MDR 422 – Berigai to Shoolagiri Road – 4.89Km - SE.

NH 48 – Hosur to Krishnagiri Road – 7.01Km - SW

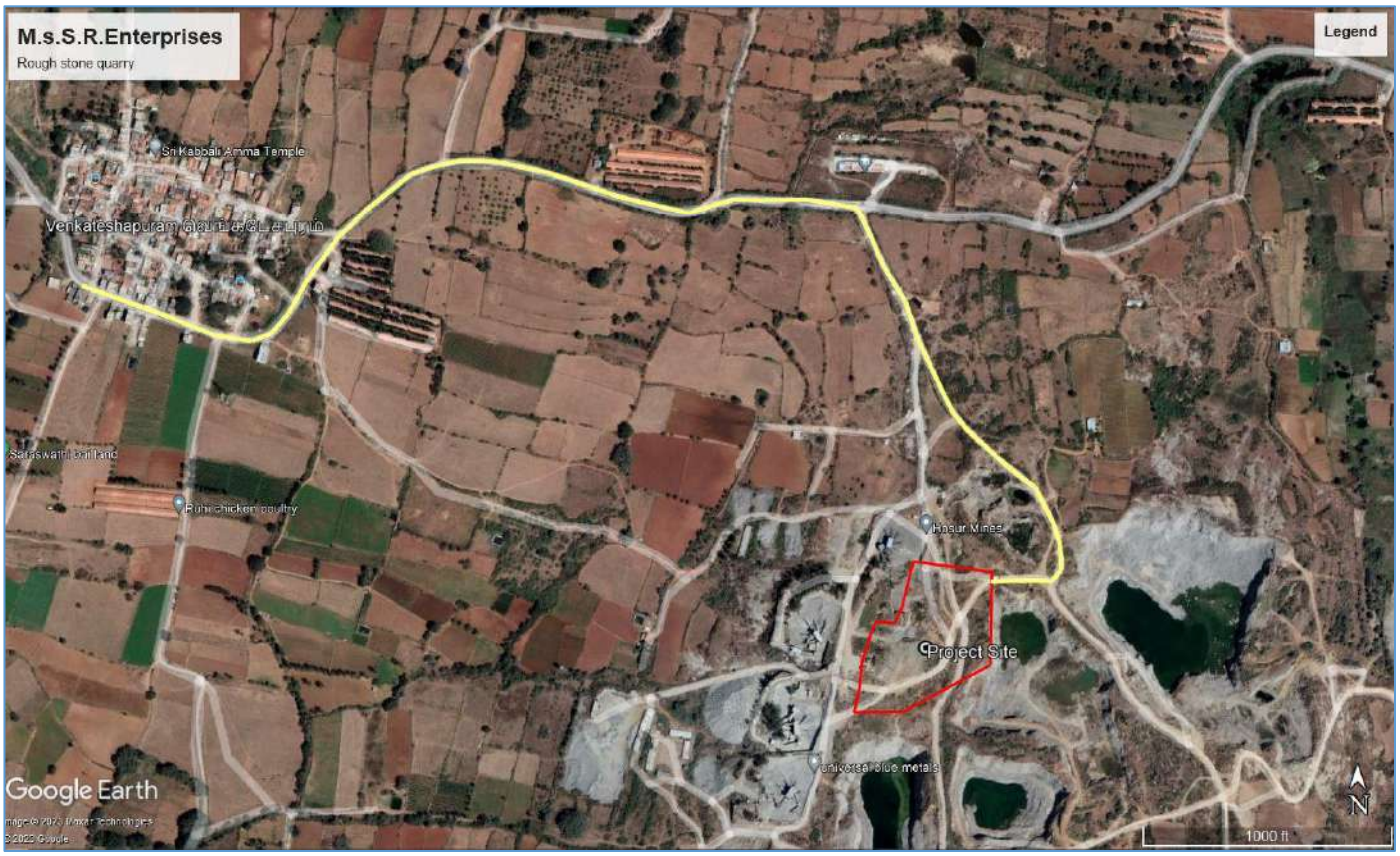


Figure 2.3: Site Connectivity

2.3 LOCATION DETAILS:

Table 2-3: Location Details

S. No	Particulars	Details
1.	Latitude	12° 45' 19.41"N to 12° 45' 14.07"N`
2.	Longitude	77° 56' 40.17"E to 77° 56' 34.69"E
3.	Site Elevation above MSL	The altitude of the area is Maximum 868m Minimum 858m above MSL.
4.	Topography	Hilly terrain
5.	Land use of the site	Government Poramboke land
6.	Extent of lease area	2.00.00 Ha

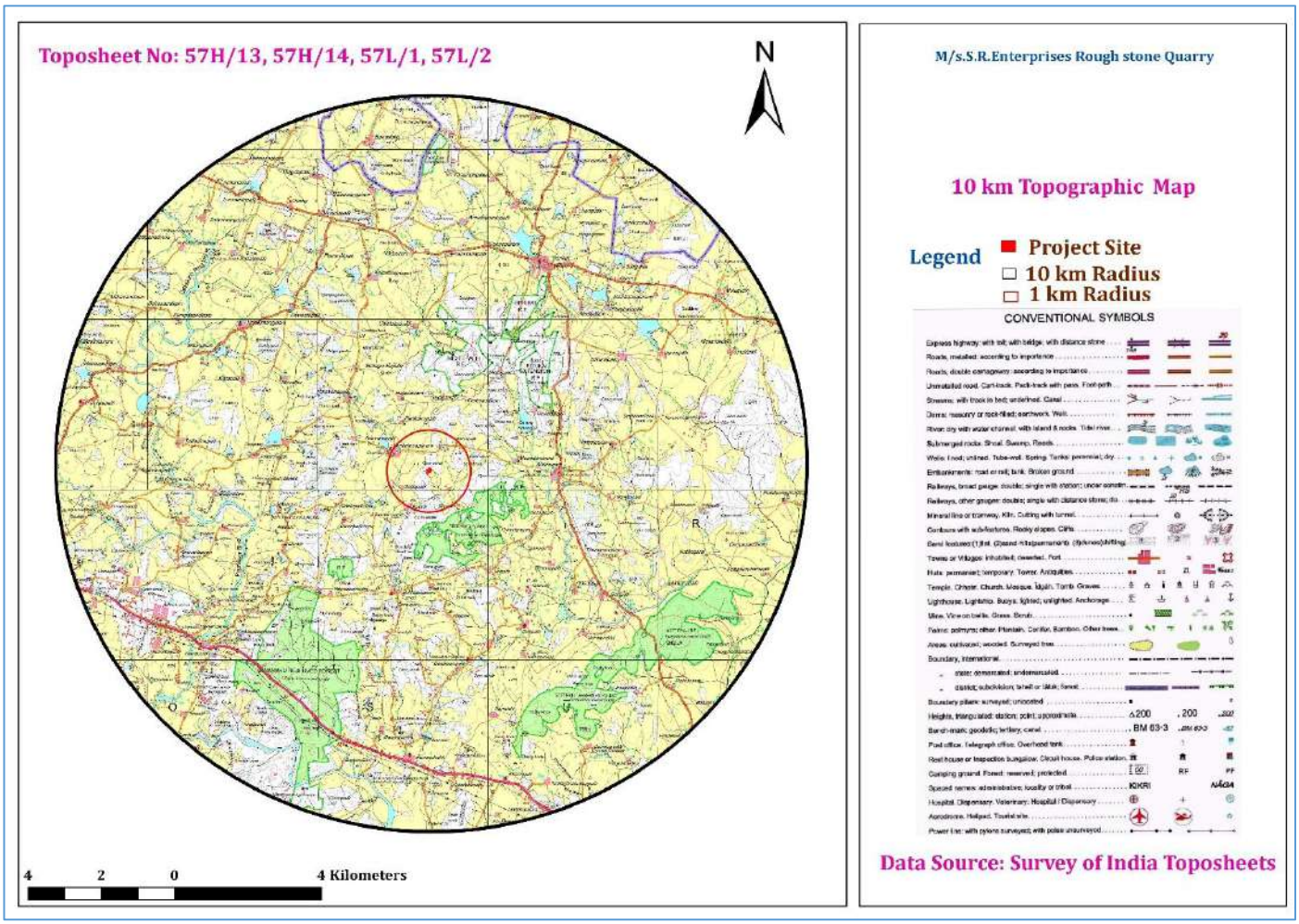


Figure 2.4: Topo Map of Project Site

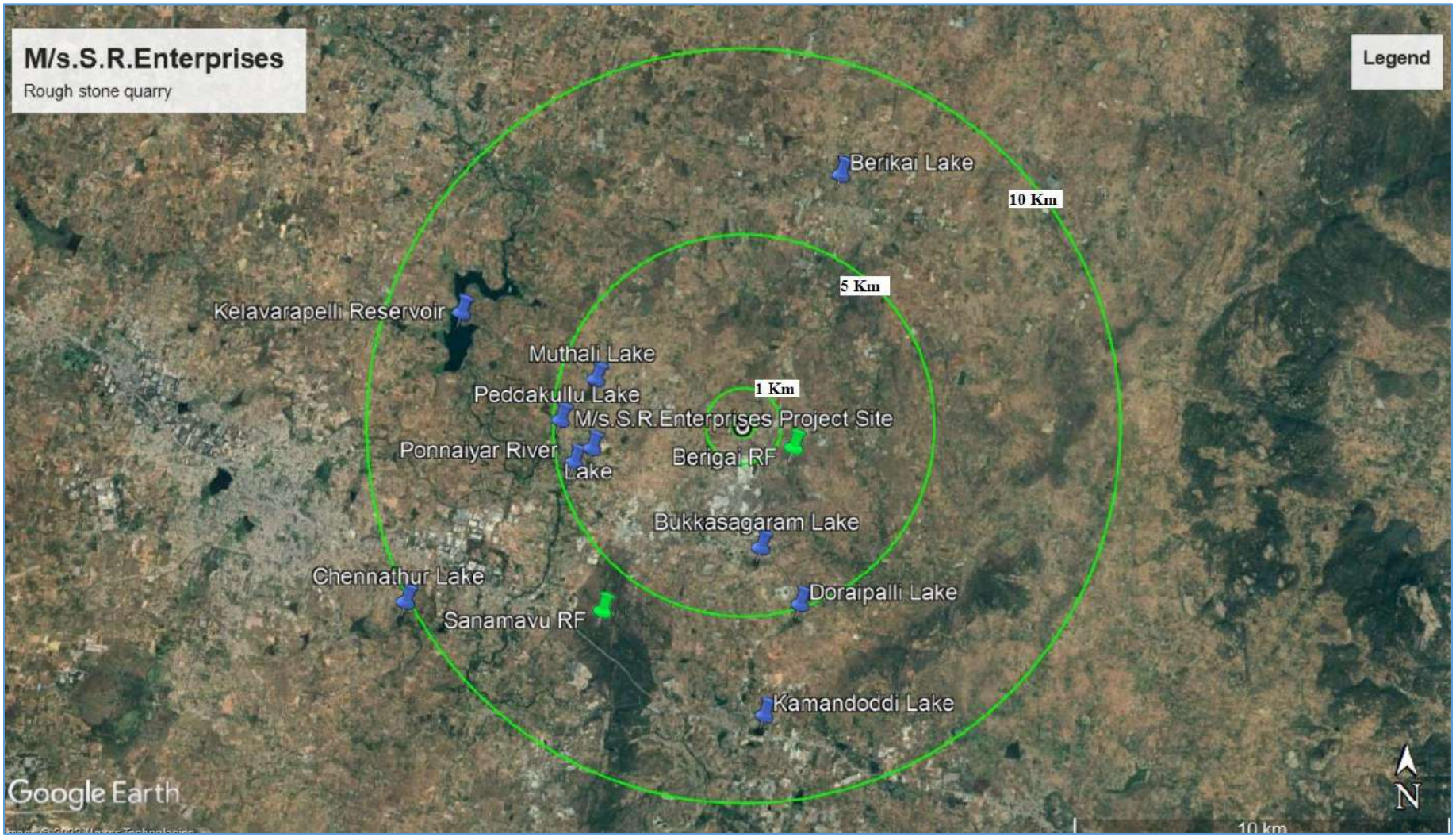


Figure 2.5: Environmental Sensitivity within 15km radius

2.3.1 *Site Photographs*

The site photographs of the project site are as follows

Figure 2.6: Site Photographs

2.3.2 *Land Use Breakup of the Mine Lease Area*

The Mine Lease area is Elevated terrain. The land use pattern of the mine lease area as follows.

Table 2-4: Land use pattern

S.No	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)
1	Quarrying Pit	0.68.0	1.47.0
2	Infrastructure	Nil	0.01.0
3	Roads	0.01.0	0.01.0
4	Green Belt	Nil	1.01.0
5	Unutilized Area	1.81.0	Nil
	Total	**2.00.00 Ha**	**2.00.00 Ha**

2.3.3 *Human Settlement*

There are no habitations within the radius of 300m. The nearby habitations are as follows

Table 2-5: Habitation

SL. NO.	DIRECTION	VILLAGE	POPULATION	DISTANCE
1	NW	Alnatham	327	1.86 Km
2	S	Bukkasagaram	2126	3.37 Km
3	E	Mensandoddi	358	2.12 Km
4	W	Venkatesapuram	2873	0.87 km

2.4 LEASEHOLD AREA

The Rough Stone Quarry mine of 2.00.00 Ha is a Government Poramboke land. The lease area falls in S.F No: 86 (Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District. There is no reserve forest or protected forest land within the lease area. There is neither human settlement within 300m radius from the lease area.

2.5 GEOLOGY

Krishnagiri District is underlain by crystalline metamorphic complex in the western parts of district and sedimentary tract in eastern side. An area of 4551 Sq.km is covered by crystalline rocks (63%) and 2671 Sq.km is covered by sediments (37%).

The general geological sequence of formation is given below:

- Quaternary - Laterites, Sands and Clays
- Tertiary - Sandstone, Gravels and Clays
- Cretaceous - Limestone,
- Calcareous Sandstone and Clay unconformity.
- Archaean - Charnockites, Gneisses, Granites, Dolerites and Pegmatite

The major part of the area is covered by metamorphic crystalline rocks of charnockite, granitic gneiss of Archaean age intruded by dolerite dykes and pegmatite veins. These rocks are highly metamorphosed and have been subjected to very severe folding, crushing and faulting. Ground Water occurs under phreatic conditions and wherever there are deep seated fractures, it occurs under semi-confined to confined conditions.

Occurrence of Ground Water in hard rock depends upon the intensity and depth of weathering, fractures and fissures present in the rocks. Granites and gneisses yield moderately compared to the yield in Charnockites. The depth of well in hard rock generally ranges between 8 and 15m below ground level. Generally, yield in open wells ranges from 30 to 250m^3 /day and in bore well between 260 and 430 m3 /day. The weathered thickness varies from 2.5 m to 42m in general. There are 3 to 5 fracture zones within 100 m and 1 to 4 fracture zones between 100 and 200 m.

The Cretaceous formation is represented by Arenaceous Limestone, Calcareous sand - stone and marl. The Tertiary formation is an argillaceous comprising of Silty clay stones, argillaceous Limestone. The Quaternary deposits represented by the river deposits of Ponnaiyar and Varahanadhi spread over as patches in Villupuram District. The alluvium consists of unconsolidated sands, gravelly sands, clays and clayey sands. The thickness of the sands ranges between 15 and 25 m in the alluvial formation which also form potential aquifers. In some areas, sandstone of tertiary formation are potential groundwater reservoirs.

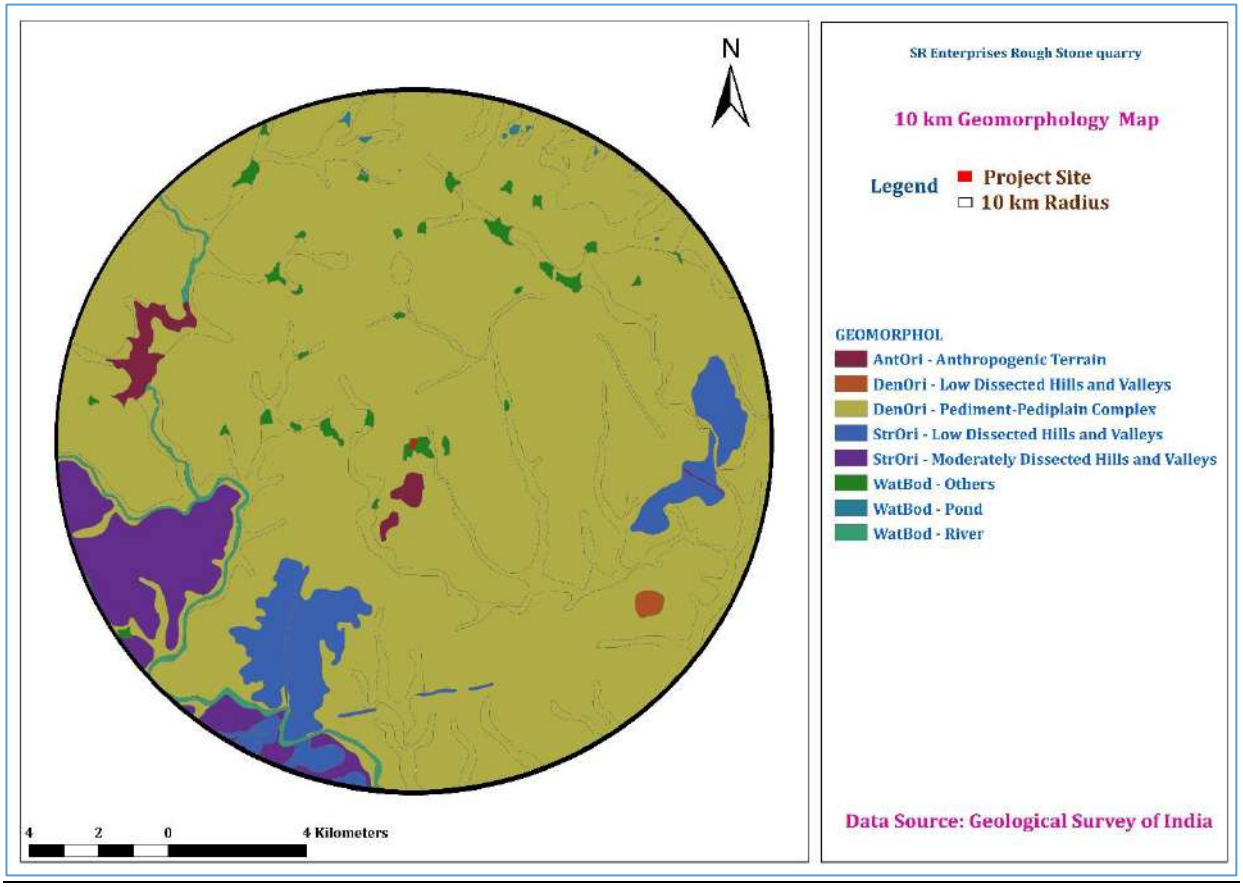


Figure 2.7: Geomorphology

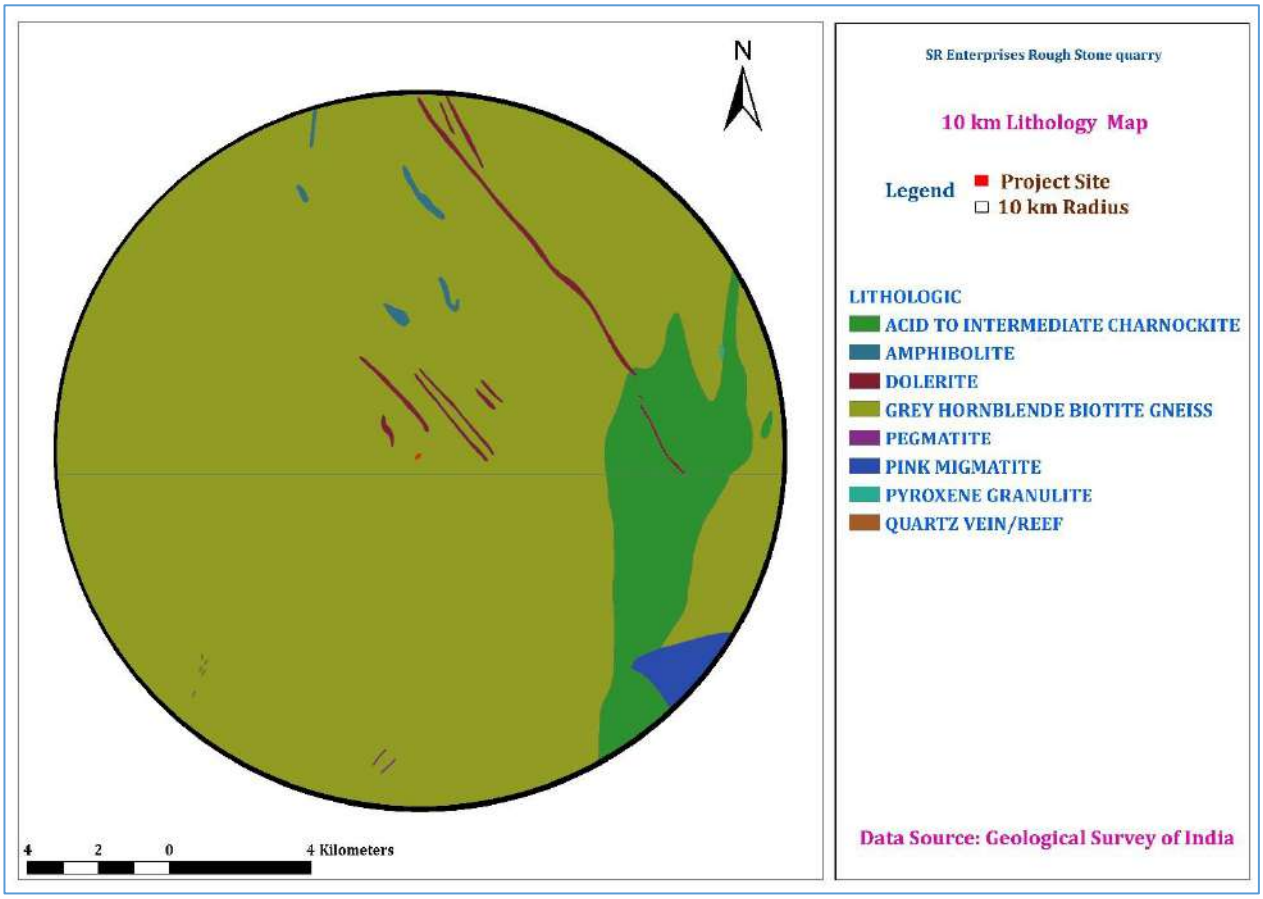


Figure 2.8 Lithology

2.6 QUALITY OF RESERVES:

The mining lease area is 2.00.00 Ha, with production capacity of 4,06,265 m^3 of Rough Stone and 38,740m^3 of Topsoil. Due to its significant role in the domestic as well as infrastructural market, making the mining of Stone along with associated minor minerals is economically viable.

Table 2-6: Details of Mining

S. No	Particulars	Details
1	Method of Mining	Open Cast mechanized
2	Geological resources	6,91,920 m^3 of Rough Stone.
3	Recoverable Reserves	4,06,265 m^3 of Rough Stone.
4	Proposed Production	4,06,265 m^3 of Rough Stone.
5	Elevation Range of the Mine Site	The altitude of the area is Maximum 868m and Minimum 858m above MSL

2.6.1 *Estimation of Reserves*

The practical method of the systematic geological mapping and delineation of Rough stone (Charnockite) within the field was done and careful evaluation of body luster, physical properties, engineering properties, commercial aspects, etc. The Topographical, Geological plan and sections demarcated the commercial marketable Rough stone (Charnockite) deposit has been prepared in 1:1000 scale and the estimated balance Geological resources as 6,91,920 m^3 of Rough Stone.

2.6.2 *Geological resources*

Rough Stone:

Geological resources is estimated at 6,91,920 m^3 of Rough Stone up to a depth of 42.0m. 2m Topsoil + 40m Rough stone (10m AGL + 32m BGL).

Table 2-7: Geological resources

GEOLOGICAL RESERVES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (Cu.m.)**	**Recoverable Reserve in Cu.m (100%)**	**Topsoil (Gravel) in m^3**
XY-AB	I	81	104	2			16848
	II	81	26	5	10530	10530	
	III	81	78	5	31590	31590	
	IV	81	104	5	42120	42120	
	V	81	104	5	42120	42120	
	VI	81	104	5	42120	42120	
	VII	81	104	5	42120	42120	
	VIII	81	104	5	42120	42120	
	IX	81	104	5	42120	42120	
Total=					**294840**	**294840**	**16848**
XY-AB	I	81	144	2			23328
	II	19	36	5	3420	3420	
	III	81	108	5	43740	43740	
	IV	81	144	5	58320	58320	
	V	81	144	5	58320	58320	

	VI	81	144	5	58320	58320	
	VII	81	144	5	58320	58320	
	VIII	81	144	5	58320	58320	
	IX	81	144	5	58320	58320	
Total=					**397080**	**397080**	**23328**
GRAND Total=					**691920**	**691920**	**40176**

2.6.3 *Mineable Reserves*

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

Table 2-8: Mineable Reserves

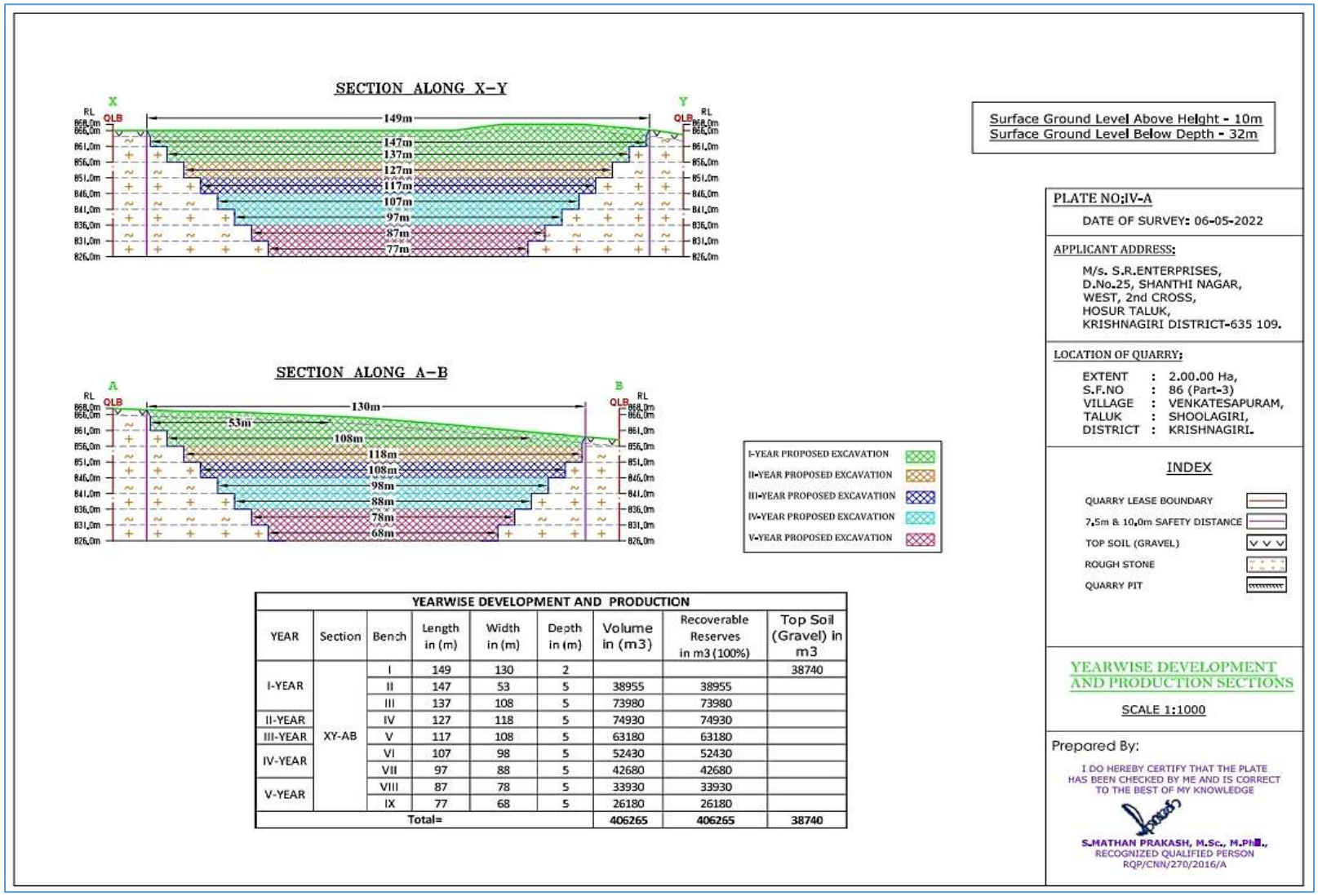
MINABLE RESERVES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (Cu.m.)**	**Recoverable Reserve in Cu.m(100%)**	**Topsoil (Gravel) in Cu.m.**
XY-AB	I	149	130	2			38740
	II	147	53	5	38955	38955	
	III	137	108	5	73980	73980	
	IV	127	118	5	74930	74930	
	V	117	108	5	63180	63180	
	VI	107	98	5	52430	52430	
	VII	97	88	5	42680	42680	
	VIII	87	78	5	33930	33930	
	IX	77	68	5	26180	26180	
Total=					**406265**	**406265**	**38740**

2.6.4 *Year wise Production Plan*

The year wise production to be carry out 4,06,265m^3 of Rough Stone for the period of five years.

Table 2-9: Year wise Production Plan

YEARWISE DEVELOPMENT AND PRODUCTION								
YEAR	**Section**	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in (m^3)**	**Recoverable Reserves in m^3 (100%)**	**Topsoil (Gravel) in m^3**
I-YEAR	XY-AB	I	149	130	2			38740
		II	147	53	5	38955	38955	
		III	137	108	5	73980	73980	
II-YEAR		IV	127	118	5	74930	74930	
III-YEAR		V	117	108	5	63180	63180	
IV-YEAR		VI	107	98	5	52430	52430	
		VII	97	88	5	42680	42680	
V-YEAR		VIII	87	78	5	33930	33930	
		IX	77	68	5	26180	26180	
Total=						**406265**	**406265**	**38740**



YEARWISE DEVELOPMENT AND PRODUCTION

YEAR	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Recoverable Reserves in m3 (100%)	Top Soil (Gravel) in m3
I-YEAR	XY-AB	I	149	130	2			38740
		II	147	53	5	38955	38955	
		III	137	108	5	73980	73980	
II-YEAR		IV	127	118	5	74930	74930	
III-YEAR		V	117	108	5	63180	63180	
IV-YEAR		VI	107	98	5	52430	52430	
		VII	97	88	5	42680	42680	
V-YEAR		VIII	87	78	5	33930	33930	
		IX	77	68	5	26180	26180	
Total=						406265	406265	38740

Figure 2.9 Year wise Production Plan

2.7 TYPE OF MINING

The proposed project is an open cast mechanized mining with one 2.0 m bench for Topsoil followed by a 5.0m vertical bench with a bench width not less than the bench height. However, as far as the quarrying of Rough Stone is concerned, observance of the provisions of regulations 106(2) (b) as above is seldom possible due to various inherent Petro genetic factors coupled with mining difficulties. Hence, it is proposed to obtain relaxation to the provisions of the above regulation from the Director of Mines Safety for which necessary provision is available with the Regulation 106(2) (b) of MMR-1961, under Mines Act- 1952.

2.7.1 *Method of Working:*

The Rough stone are proposed to quarry at 5m bench height & 5m bench width with conventional Open cast mechanized method. The quarry operation involves Shallow jack hammer drilling, Blasting, Loading & transportation of Rough Stone to the nearby crusher units/road formation works. The production of Rough Stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining.

Splitting of rock mass of considerable volume from the parent rocks by jackhammer drilling and blasting by manually braking and loading the Rough Stone from pit head to the needy crushing units/civil works for the needy sectors.

2.7.2 *Overburden*

The entire lease area covers 2.0m of Topsoil and estimated quantity of Topsoil is 38,740m^3. Topsoil formation will be removed and transported to the needy users, only after obtaining permission and paying necessary seigniorage fees to the Government.

2.7.3 *Machineries to be used*

Type of machineries proposed for quarrying operation for the entire project is listed below.

Table 2-10: List of Machineries used

For Mining operation Loading Equipment	Excavator of 1.2 Cu.m bucket capacity Jack Hammer (25.5 mm dia) Tractor mounted compressor
Transportation	Tipper 2 Nos. of 10 M.T capacity

2.7.4 *Blasting:*

2.7.4.1 Blasting Pattern:

The quarrying operation will be carried out by Mechanized Opencast method in conjunction with conventional method of mining using jack hammer drilling and blasting for shattering effect and loosen the rough stone.

2.7.4.2 Drilling & Blasting:

Drilling and Blasting Parameters are as follows.

Table 2-11: Drilling and Blasting Parameters

1	Diameter of the hole	32-36 mm
2	Spacing	60 Cms
3	Depth	1 to 1.5 m
4	Charge / Hole	D.Cord with water or 70gms of gun powder or Gelatine.
5	Pattern of hole	Zig Zag
6	Inclination of hole	70˚ from the horizontal.
7	Quantity of rock broken	0.45 MT x 2.6 = 1.17 MT
8	Quantity of rock broken per day	362.8m^3
9	Control Blasting efficiency @90%	1.17 x 90% = 1.05 MT / hole
10	Charge per hole	140 gms of 25mm dia catridge

2.7.4.3 Types of Explosives to be used:

A small diameter of 25mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Rough Stone. No deep hole drilling or primary blasting is proposed.

2.7.4.4 Measures to minimize ground vibration due to blasting:

The quarry is situated more than 1 km from the nearby villages. Controlled blasting measures will be adopted for minimizing the ground vibration and fly of rocks. Shallow depths jackhammer drilling & blasting is proposed to be carried out with minimum use of explosive mainly to give shattering effect in rough stone for easy excavation and to control fly of rock.

Table 2-12: Blasting Details

Parameters	Details
Diameter of holes	32-36mm
Spacing	60 cms
Powder factor	6 to 7 tons/kg of explosives
Pattern of hole	Zig Zag
Charge/hole	D.Cord with water or 70gms of gun powd Gelatine.
Blasted at daytime	5 to 6 pm

2.7.4.5 Storage & Safety measures taken during blasting:

The project proponent "M/s. S.R. Enterprises" will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by Permit Mines Manager. The copy of the explosive certificate is attached as ***Annexure.***

2.8 MAN POWER REQUIREMENTS

The manpower requirement to meet out the production Schedule and the machinery strength envisaged in the mining plan and to comply with the statutory provisions of the Mines Safety Regulations is as follows.

Table 2-13: Man Power Requirements

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	3 Nos
		Office Boy	1 No
4.	Management & Supervisory staff		3 Nos
Total			**18 Nos**

No child less than 18 years will be entertained during quarrying operations.

2.8.1 *Water Requirement*

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

Table 2-14: Water Requirment

Purpose	**Quantity**	**Sources**
Drinking Water	1.0 KLD	Packaged Drinking water vendors available in Venkatesapuram village.
Green belt	0.5 KLD	Other domestic activities through road tankers supply
Dust suppression	0.5 KLD	From road tankers supply
Total	**2.0 KLD**	

2.9 PROJECT IMPLEMENTATION SCHEDULE

The implementation schedule of the proposed Mine Lease of M/s. S.R. Enterprises (2.00.00 ha) is as follows.

Table 2-15: Mining Schedule

MINING SCHEDULE					
Activity	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27
Site Clearance					
Excavation - Top Soil Removal/Overburden					
I Year Production – 112935 Cum - Rough Stone & 38740 Topsoil					
II Year Production – 74930 Cum - Rough Stone					
III Year Production – 63180 Cum - Rough Stone					
IV Year Production - 95110 Cum - Rough Stone					
V Year Production 60110 Cum - Rough Stone					

2.10 SOLID WASTE MANAGEMENT

Table 2-15: Solid Waste Management

S. No	Type	Quantity	Disposal Method
1	Organic	3.24 kg/day	Municipal bin including food waste
2	Inorganic	4.86 kg/day	TNPCB authorized recyclers

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

2.11 MINE DRAINAGE

The quarry operation is proposed up to a depth of 42 m (10m AGL + 32m BGL). The water table is below 70 m from the ground level which is observed from the nearby bore wells and bore wells of this area. Hence the ground water will not be affected in any manner due to the quarrying operation during the entire lease period.

2.12 POWER REQUIREMENT

This 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.

2.13 PROJECT COST

1	**A. Fixed Asset Cost**: 1. Land Cost 2. Labour Shed 3. Sanitary Facility 4. Refilling/Fencing cost Total=	: : : :	 Rs. 3,23,00,000/- Rs. 1,40,000/- Rs. 70,000/- Rs.80,000/- **Rs.3,25,90,000/-**
2	**B. Operational Cost:** **Machinery cost**	:	**Rs.30,00,000/-**
3	**C. EMP Cost:** Display board in site; Monitoring-Air, Water, Noise; Dust Suppression - Water sprinkling by own water tankers; Vehicle	: : : : :	**Rs.81,41,002/-**

	Tyres Wash; Green Belt Development; Road Development & Management; Occupational Health And Safety; Solid Waste Management; Strom Water; Renewable Energy, CCTV Installation, Salary for mines manager and blaster	: : : : :	
	Total Project Cost (A+B+C)	:	**Rs. 4,37,31,002/-**

2.14 GREENBELT

1. The development of greenbelt in the peripheral buffer zone of the mine area.
2. 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 200 trees per annum with interval 5m.
4. The rate of survival expected to be 80% in this area

Table. 2-17 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, Quaker buttons, Thethankottai maram, Manjadi, Usil, Aathi, Panai, Uzha, Illuppai, Eachai, Vanni Maram	80%	1000
Total		**1000**

3 Description of the Environment

3.1 GENERAL:

The method of mining for extracting rough stone quarry is required to be selected in such a manner to ensure sustainable development. Mining activities invariably affect the existing environmental status of the site. It has both adverse and beneficial effects. In order to maintain the environmental commensuration with the mining operation, it is essential to undertake studies on the existing environmental scenario and assess the impact on different environmental components. This would help in formulating suitable management plans and sustainable resource extraction.

To understand the existing environmental scenario, Baseline data helps in identification, prediction and evaluation of impacts in Environmental Impact assessment. Through field study, baseline data are collected considering various factors of the project. This includes-

- Physical- the area, the soil properties, the geological characteristics, the topography, etc
- Chemical- water, air, noise and soil pollution levels, etc.
- Biological- the biodiversity of the area, types of flora and fauna, species richness, species distribution, types of ecosystems, presence or absence of endangered species and/or sensitive ecosystems etc.
- Socioeconomic- demography, social structure, economic conditions, developmental capabilities, displacement of locals, etc.

3.1.1 *Study Area:*

The study area for the mining projects is as follows:

- Mine lease area as the “core zone”
- A study area of 10 km radius from the project boundary is designated as buffer Zone and for the study of Socio-economic status, 10 km radius from the boundary limits of the mine lease area has been selected.

We have obtained Terms of Reference from SEIAA vide Letter No. SEIAA-TN vide Letter No. SEIAA-TN/F. No. 9499/ ToR-1309/2022 Dated: 07.12.2022. The baseline monitoring is carried out in December 2022 to February 2023 and the analysis is briefed in the EIA report. The proponent has engaged M/s. Ecotech labs Pvt. Ltd for carrying out the existing baseline study.

3.1.2 *Instruments Used*

The following instruments were used at the site for baseline data collection.

1. Respirable Dust Sampler with attachment for gaseous Pollutants, Envirotech APM 460, APM411.
2. Fine Particulate Matter (FPM) Sampler, APM 550
4. Sound Level Meter Model SL–4010
5. 2000 series watchdog automatic weathering monitoring station

3.1.3 *Baseline Data Collection Period:*

The baseline data is collected in accordance with the CPCB Guidelines. The Baseline study is carried out from December 2022 to February 2023.

3.1.4 *Frequency of Monitoring*

Table 3-1: Frequency of Sampling and Analysis

Attributes	Sampling	Frequency
Air environment – Meteorological (wind speed, wind direction, rainfall, humidity, temperature)	Project site	1 hourly continuous
Air environment – Pollutants PM 10 PM 2.5 SO_2 NO_X	5 locations	24 hourly twice a week 4 hourly. Twice a week, One non-monsoon season 8 hourly, twice a week 24 hourly, twice a week
Noise	5 locations	24 hourly Once in 5 locations
Water (Ground water) pH, Temperature, Turbidity, Magnesium Hardness, Total Alkalinity, Chloride, Sulphate, Fluoride, Nitrate, Sodium,	5 locations	Once in 5 locations

Potassium, Salinity, Total nitrogen, Total Coliforms, Fecal Coliforms		
Water (surface water) pH, Temperature, Turbidity, Magnesium Hardness, Total Alkalinity, Chloride, Sulphate, Fluoride, Nitrate, Sodium, Potassium, Salinity, Total nitrogen, Total Coliforms, Fecal Coliforms	Sample from nearby lakes/river	One-time Sampling
Soil (Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	5 locations	Once in 5 locations
Ecology and biodiversity Study	Study area covering 10 km radius	One-time Sampling
Socio- Economic study (Population, Literacy Level, employment, Infrastructure like school, hospitals & commercial establishments)	Villages around 10 km radius	One-time Sampling

3.1.5 *Secondary data Collection*

Apart from the primary data, Secondary data is also used for the collection; collation; synthesis and interpretation.

- Flora & Faunal Study
- Land use study

- Demography and socio-economic analysis
- Meteorological data, from Indian Meteorological Department (IMD)

3.1.6 *Study area details*

Table 3-2 Study area details

S. No	Description	Details	Source
1.	Project Location	S.F.Nos. 86 (Part-3) Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District.	Field Study
2.	Latitude & Longitude	Latitude: 12° 45' 19.41"N to 12° 45' 14.07"N Longitude: 77° 56' 40.17"E to 77° 56' 34.69"E	Topo Sheet
3.	Topo Sheet No.	57- H/14	Survey of India Toposheet
4.	Mine Lease Area	2.00.00 Ha	--
Demography in the study area (as per Census 2011)			
5.	Total Population	2,873	Census Survey of India
6.	Total Number of Households	650	
7.	Maximum Temperature (°C)	34	IMD
8.	Minimum Temperature (°C)	24	
9.	Ecological Sensitive Areas - Wetlands, watercourses or other waterbodies, coastal zone, biospheres, mountains, forests	• Muthali lake – 3.98Km – W • Peddakullu lake – 4.92Km – W • Bukkasagaram lake – 3.54Km – S • Doraipalli lake – 5.20Km – SSE • Chennathur lake – 10.20Km – SW • Lake – 4.13Km – W • Berkai lake – 6.57Km – NE • Ponnaiyar River – 4.85Km – SW • Kelavarapelli Reservoir – 7.61Km - W	Google Earth/Field Study
10.	Densely Populated area	Hosur - 12.82 Km -SE	

11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	**S. No.** / **Places** / **Dist. From Project Site** **Schools & Colleges** 1 Adhiyaman college of Agriculture & Research, Athimugam. — 4.20Km - E 2 Government Higher Secondary School, Bukkasagaram. — 2.89Km - S 3 Government High school, Venkatesapuram. — 1.22Km - W **Hospitals** 1 Government Hospital, Athimugam — 4.04Km - E 2 Government Hospital, Kamandoddi — 7.46Km - S	Google Earth/ Field Study

3.1.7 *Site Connectivity:*

MDR 422 – Berigai to Shoolagiri Road – 4.01Km – S & NH 48 – Hosur to Krishnagiri Road – 8.25Km - SW

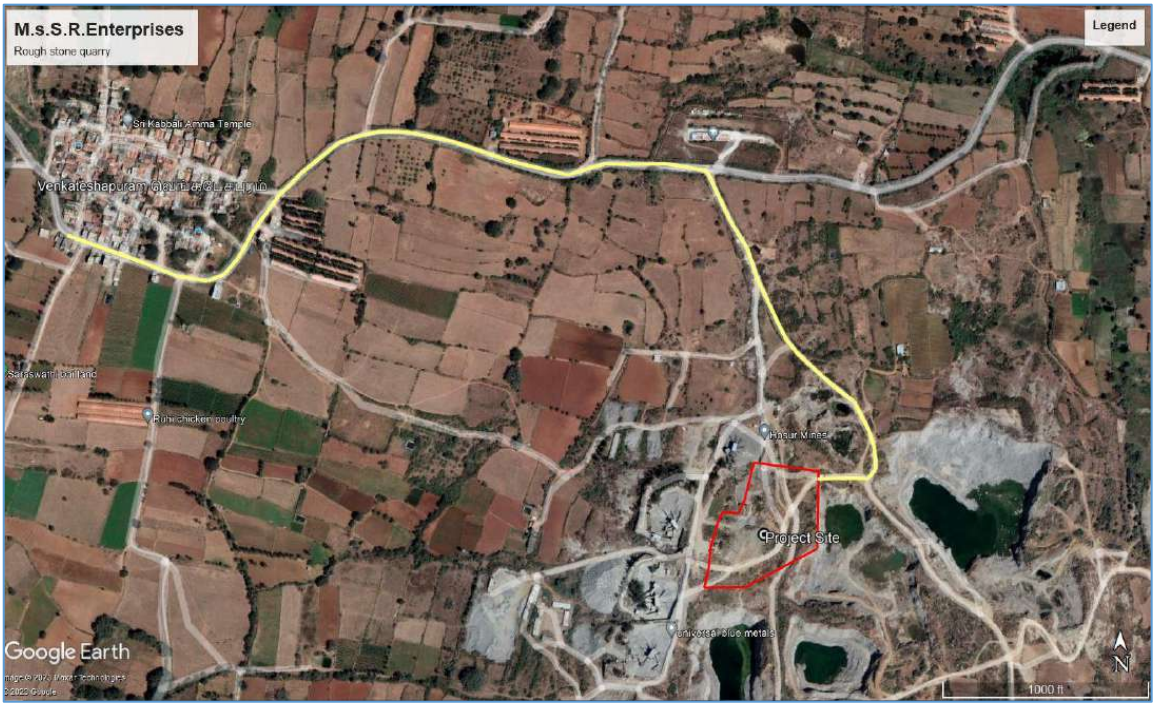


Figure 3.1: Site Connectivity

3.2 LAND USE ANALYSIS

3.2.1 *Land Use Classification*

Land Use / Land Cover - Land Use refers to man's activity and the various uses, which are carried on land. Land Cover refers to natural vegetation, water bodies, rock/soil, artificial cover and others, resulting due to land transformation. The present Land Use/Land Classification map is developed with following objectives. The main objective of the study is to classify the different land use within 10 km from the project boundary.

3.2.2 *Methodology*

Information of land use and land cover is important for many planning and management activities concerning the surface of the earth (Agarwal and Garg, 2000). Land use refers to man's activities on land, which are directly related to land (Anderson et al., 1976). The land use and the land cover determine the infiltration capacity. Barren surfaces are poor retainers of water as compared to grasslands and forests, which not only hold water for longer periods on the surface, but at the same time allow it to percolate down.

The terms 'land use' and 'land cover' (LULC) are often used to describe maps that provide information about the types of features found on the earth's surface (land cover) and the human activity that is associated with them (land use). Satellite remote sensing is being used for determining different types of land use classes as it provides a means of assessing a large area with limited time and resources. However, satellite images do not record land cover details directly and they are measured based on the solar energy reflected from each area on the land. The amount of multi spectral energy in multi wavelengths depends on the type of material at the earth's surface and the objective is to associate particular land cover with each of these reflected energies, which is achieved using either visual or digital interpretation. In the present study the task is to study in detail the land use and land cover in and around the project site. The study envisages different LULC around the proposed project area and the procedure adopted is as below.

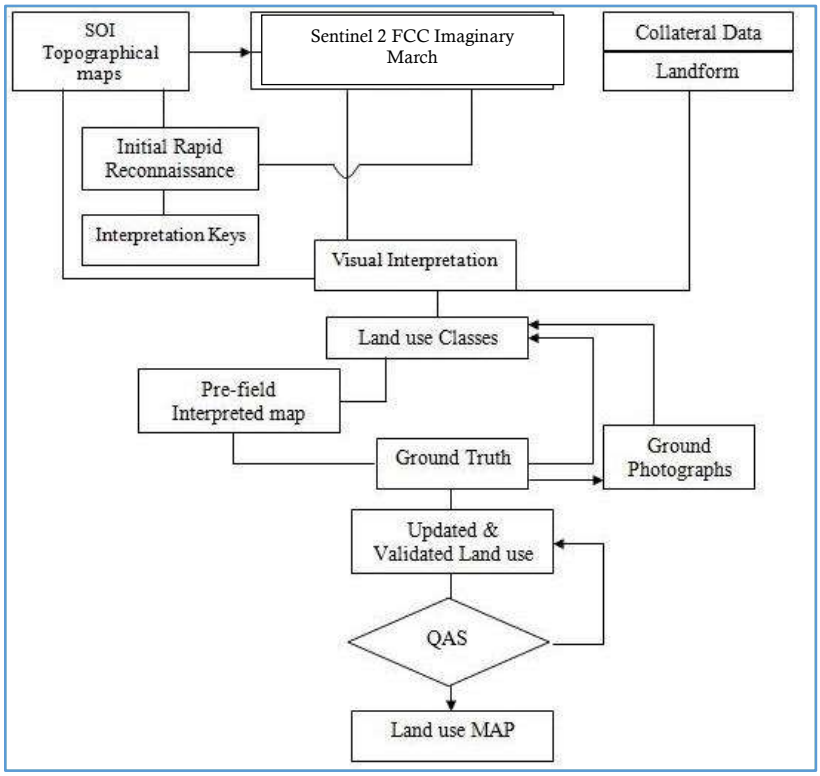


Figure 3.2 Flow Chart showing Methodology of Land use mapping

3.2.3 *Satellite Data*

Sentinal 2 multispectral satellite data of 2020 was utilized for the present study. Details of satellite data is given below. The rectification of imagery was carried out to bring the digital data on the earth coordinate system by means of ground control point (GCP) assignments/SOI topo sheets.

3.2.4 *Scale of mapping*

Considering the user defined scale of mapping, 1:50000 Sentinal 2 data was used for Land use / Land cover mapping of 10 km radius for proposed site. The description of the land use categories for 10 km radius and the statistics are given for 10 km radius.

3.2.5 *Interpretation Technique*

Standard on screen visual interpretation procedure was followed. The various Land use / Land cover classes interpreted along with the SOI topographical maps during the initial rapid reconnaissance of the study area. The physiognomic expressions conceived by image elements of color, tone, texture,

size, shape, pattern, shadow, location and associated features are used to interpret the FCC imagery. Image interpretation keys were developed for each of the LU/LC classes in terms of image elements.

June 2016 FCC imagery (Digital data) of the study area was interpreted for the relevant land use classes. On screen visual interpretation coupled with supervised image classification techniques are used to prepare the land use classification.

1. Digitization of the study area (10 km radius from the proposed site) from the topo maps
2. In the present study the sentinal satellite image and SOI topo sheets of 57-H/14 have been procured and interpreted using the ERDAS imaging and ARC-GIS software adopting the necessary interpretation techniques.
3. Satellite data interpretation and vectorization of the resulting units
4. Adopting the available guidelines from manual of LULC mapping using Satellite imagery (NRSA, 1989)
5. Field checking and ground truth validation
6. Composition of final LULC map

The LULC Classification has been done at three levels where level -1 being the broad classification about the land covers that is Built-up land, agriculture land, waste land, wetlands, and water bodies. These are followed by level –II where built-up land is divided into towns/cities as well as villages. The Agriculture land is divided into different classes such as cropland, Fallow, Plantation, while wastelands are broadly divided into, Land with scrub and without Scrub and Mining and Industrial wasteland. The wetlands are classified into inland wetlands, coastal wetlands and islands. The water bodies are classified further into River/stream, Canal, Tanks and bay. In the present study level II classification has been undertaken. The SOI Topo map is presented in Annexure and Satellite imagery of 10 km radius from the project site is presented Annexure.

3.2.6 *Field Verification*

Field verification involved collection, verification and record of the different surface features that create specific spectral signatures / image expressions on FCC. In the study area, doubtful areas identified in course of interpretation of imagery is systematically listed and transferred on to the corresponding SOI topographical maps for ground verification. In addition to these, traverse routes were planned with reference to SOI topographical maps to verify interpreted LU/LC classes in such a

manner that all the different classes are covered by at least 5 sampling areas, evenly distributed in the area. Ground truth details involving LU/LC classes and other ancillary information about crop growth stage, exposed soils, landform, nature and type of land degradation are recorded and the different land use classes are taken the Land use map is presented in Annexure.

3.2.7 *Description of the Land Use / land cover classes*

3.2.7.1 Water

Areas where water was predominantly present throughout the year; may not cover areas with sporadic or ephemeral water; contains little to no sparse vegetation, no rock outcrop nor built up features like docks; examples: rivers, ponds, lakes, oceans, flooded salt plains.

3.2.7.2 Trees

Any significant clustering of tall (~15-m or higher) dense vegetation, typically with a closed or dense canopy; examples: wooded vegetation, clusters of dense tall vegetation within savannas, plantations, swamp or mangroves (dense/tall vegetation with ephemeral water or canopy too thick to detect water underneath).

3.2.7.3 Grass

Open areas covered in homogenous grasses with little to no taller vegetation; wild cereals and grasses with no obvious human plotting (i.e., not a plotted field); examples: natural meadows and fields with sparse to no tree cover, open savanna with few to no trees, parks/golf courses/lawns, pastures.

3.2.7.4 Flooded vegetation

Mix of small clusters of plants or single plants dispersed on a landscape that shows exposed soil or rock; scrub-filled clearings within dense forests that are clearly not taller than trees; examples: moderate to sparse cover of bushes, shrubs and tufts of grass, savannas with very sparse grasses, trees or other plants.

3.2.7.5 Crops

Humans planted/plotted cereals, grasses, and crops not at tree height; examples: corn, wheat, soy, fallow plots of structured land.

3.2.7.6 Scrub/Shrub

Mix of small clusters of plants or single plants dispersed on a landscape that shows exposed soil or rock; scrub-filled clearings within dense forests that are clearly not taller than trees; examples: moderate to sparse cover of bushes, shrubs and tufts of grass, savannas with very sparse grasses, trees or other plants.

3.2.7.7 Built Area

Human made structures; major road and rail networks; large homogenous impervious surfaces including parking structures, office buildings and residential housing; examples: houses, dense villages / towns / cities, paved roads, asphalt.

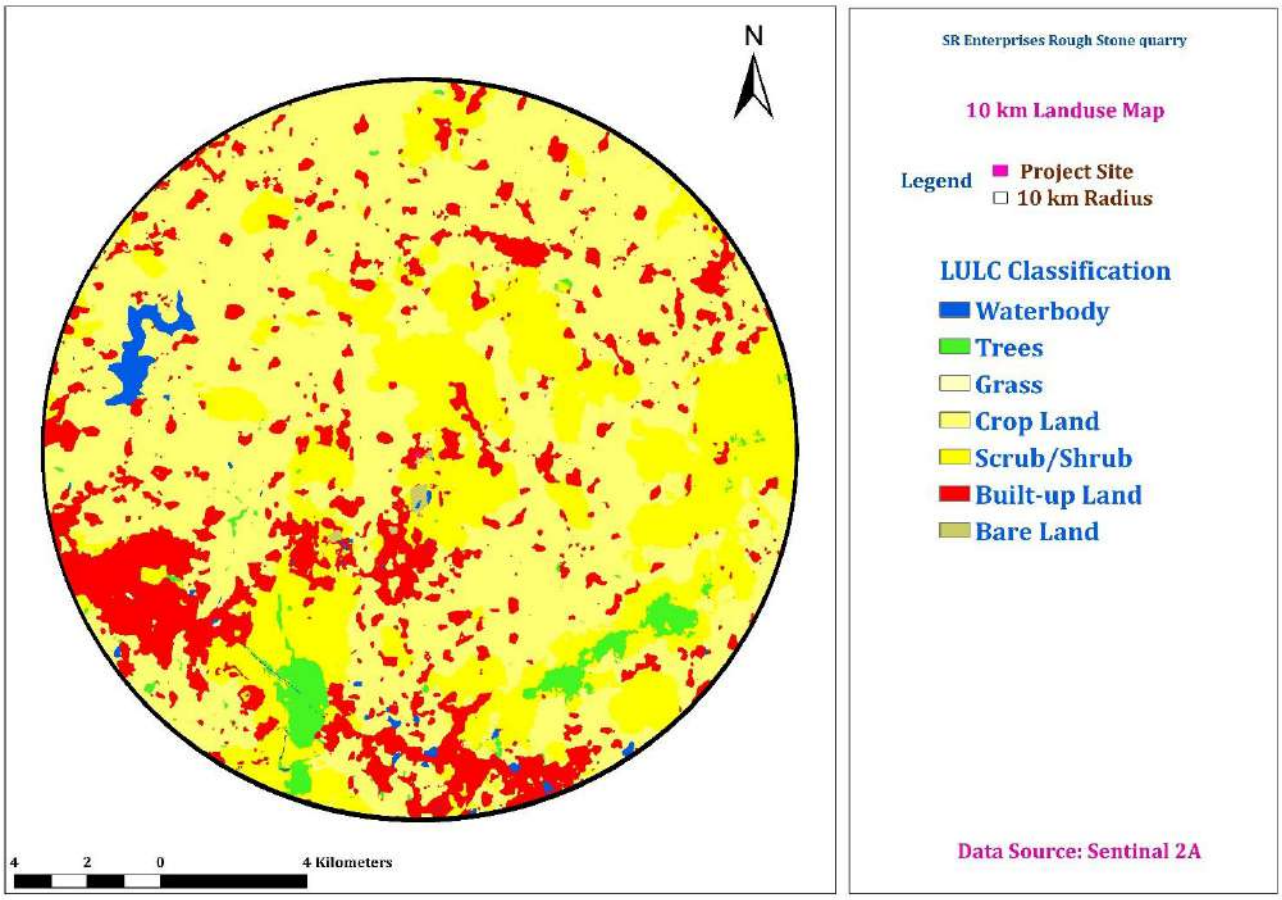


Figure 3.3 Land use classes around 10 km radius from the project site

3.2.7.8 Different Land use classes around 10 km radius from the project site

Table 3-3 Land use pattern

Sl.No	Categories	Area in Sq.m	Percentage
1	Water Body	3.17	0.99
2	Trees	6.84	2.13
3	Grass	0.09	0.03
4	Crops	178.23	55.80
5	Scrub/Shrub	80.13	25.0
6	Built-up Area	50.87	15.87
7	Barren Land	0.53	0.17

3.3 WATER ENVIRONMENT

3.3.1 *Contour & Drainage*

The altitude of the area is Maximum 868m and Minimum 858m above MSL.

3.3.2 *Geomorphology*

The prominent geomorphic units identified in the district through interpretation of satellite imagery are structural hills in the southwestern part of the district, denudational landforms like buried pediments in the plains and inselbergs and plateaus represented by conical hills aligned with major lineaments. Krishnagiri district forms part of the upland plateau region with many hill ranges and undulating plains. The western part of the district has hill ranges of Mysore plateau with a chain of undulating hills and deep valleys extending in NNE-SSW direction. The plains of the district have an average elevation of 488 m amsl. The plateau region along the western boundary and the northwestern part of the district has an average elevation of 914 m amsl. The Guthrayan Durg with an elevation of 1395 m amsl is the highest peak in the district.

Soils

Soils have been classified into Black soil, mixed soil, red loamy soil, gravelly and sandy soils. Red loamy and sandy soils are predominant in Hosur taluk. Vast stretches of loam soils and black soils occur in Krishnagiri district.

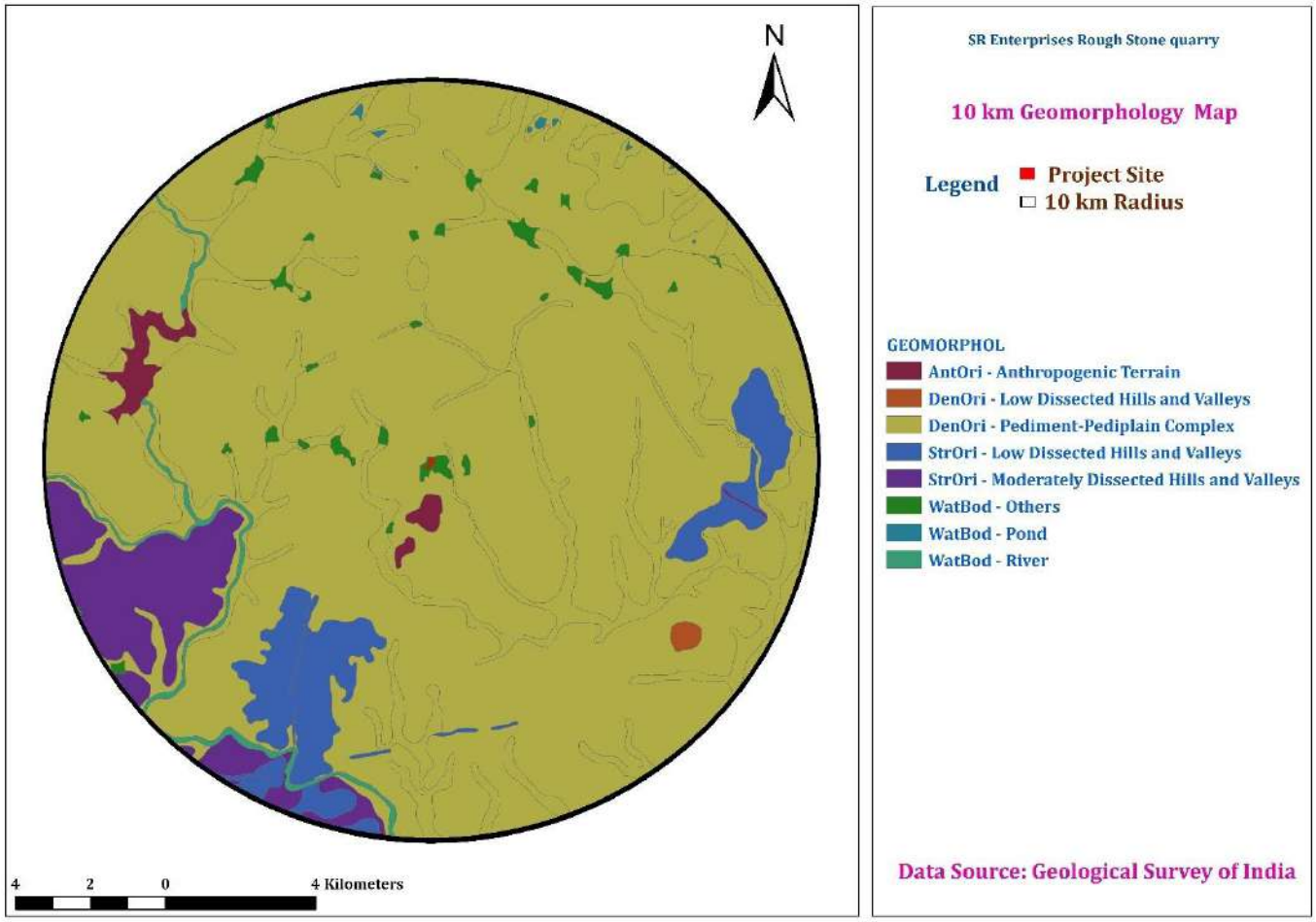


Figure 3.4 Geomorphology within 10km from the project site

3.3.3 *Geology:*

The geological formations of the district belong mainly to Archaean age along with rock of Proterozoic age. The former is rerpresented by Khondalite Group of rocks, Charnockite Group of rocks, Migmatites Complex, Sathyamangalam Group of rocks, while the latter is represented by Alkaline rocks. The Khondalite Group includes garnet sillimanite gneiss and quartzite which occur as small patches. The migmatite complex includes garnet ferrous quartzofeldspathic gneiss and horn blends biotite gneiss, the former exposed on the western part of the district. The Sathyamangalam Group includes fuchsite quartzite, sillimanite mica schist and amphibolites. The Bhavani Group in this area includes fissile hornblende-biotite gneiss, granitoid gneiss and pink migmatite. Amphibolites with barbed ferruginous quartzite and associated quartzo-feldspathic rocks (Champion Gneiss) represent

the Kolar group and are found west and southwest of Veppanapalli. Following this there are basic intrusions occurring as dykes.

The Charnockite Group occupies a major part of the south-west portion of this district with small bands of garnetiferous quartzo-feldspathicgneiss, Granite gneiss and dolerite dykes. The North-East andNorthernpartof the District mainly consist of granite gneiss with small patches of Pink Migmatite, hornblende-biotite gneiss and dolerite dykes. The Eastern part of the district consists of Epidote-Hornblende Gneiss, Ultra Mafics, Syenite and Carbonatite.

The Alkaline Complex is represented by epidote-horn blende gneiss, ultramafics, syenite and carbonatite and these are distributed in the eastern part of the district. Innumerable basic dykes and felsites, quartz, barites and pegmatite veins form part of the Alkali Complex.

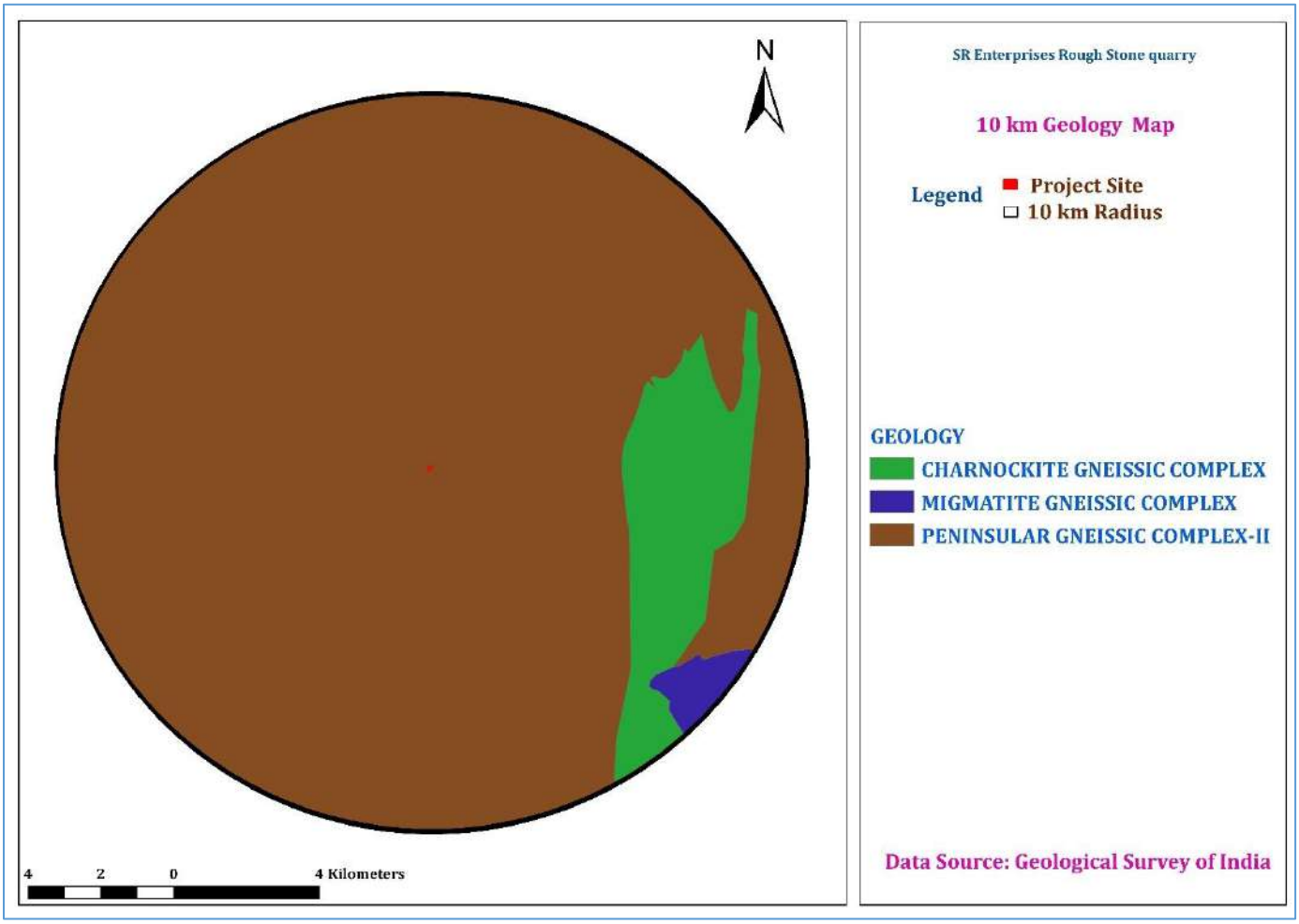


Figure 3.5 Geology within 10km from the project site

3.3.4 *Hydrogeology*

Krishnagiri district is underlined by Archaean crystalline formations with Recent alluvial deposits of limited areal extent and thickness along the courses of major rivers (Plate-II). The occurrence and movement of ground water are controlled by various factors such as physiography, climate, geology and structural features. Weathered, and fractured crystalline rocks constitute the important aquifer systems in the district.

Ground water generally occurs under phreatic conditions in the weathered mantle and under semi-confined conditions in the fractured zones at deeper levels. The thickness of weathered zones in the district ranges from less than a meter to more than 15 m. The yield of large diameter dug wells in the district, tapping the weathered mantle of crystalline rocks ranges from 100 to 500 lpm. These wells normally sustain in pumping for 2 to 6 hours per day, depending upon the local topography and characteristics of the weathered mantle.

The depth to water level (DTW) during pre-monsoon (May 2006) ranged between 0.5 and 9.9 m bgl (Plate-III) in the district. In major part of the district the DTW is more than 5mbgl. Whereas it ranged between 2 and 9.9 m bgl (Plate-IV) during post monsoon, in the district and the DTW is in the range of 5 – 10 m bgl in the entire district except a few isolated pockets.

The yield of successful exploratory wells drilled in the district ranged from 0.78 lps to 26 lps. As per the studies the wells drilled in granitic gneiss have higher yields than the wells drilled in charnockites. The specific capacity of the wells ranged from 1.2 to 118.0 lpm/m/dd. The piezometric head of fracture zones varied between 0.50 and 18.45 m bgl.

Aquifer Parameters:

The transmissivity values of fracture zones ranged from 1 to 188 m^2 /day with low to very low permeability values.

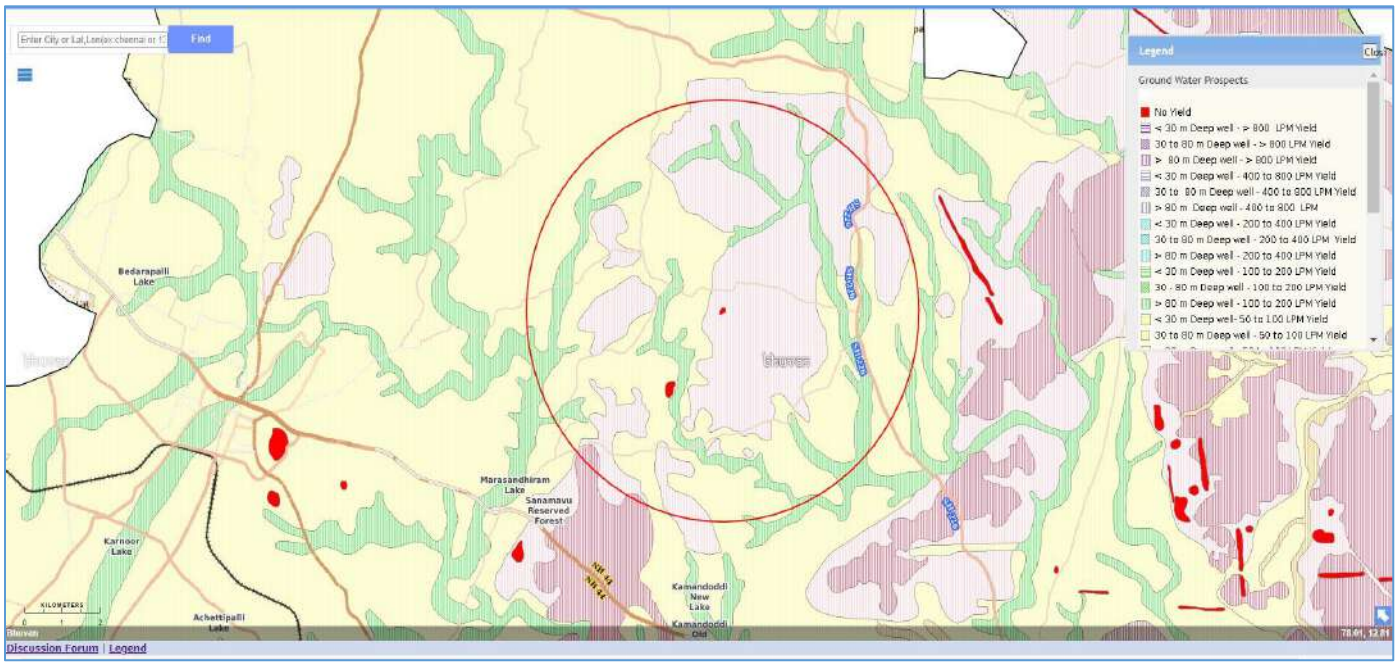


Figure 3.6 Ground water prospects within 5 km radius of the project site

3.3.5 *Ground water quality monitoring*

Ground water quality monitoring is done in the following locations and analysis will be done for physical, chemical & Biological parameters.

Table 3-4 Ground water Quality Analysis

Environmental Parameters: Ground water Quality Analysis	
Monitoring Period	December 2022 to February 2023
Design Criteria	Based on the Environmental settings in the study area
Monitoring Locations	Project Site – GW 1 Athimugam Masjid Al Sunnatul Jamath– GW 2 Sri PattalammaDevi Temple, Payarkuttalai- GW 3 Govt.Hr Sec School, Bukkasagaram - GW 4 Sivaraman Green Garden– GW5
Methodology	Water Samples were collected in 5 Litre fresh cans as per IS 3025 Part I and transported to the laboratory in Iceboxes
Frequency of Monitoring	Once in a season

3.3.5.1 Sampling Procedure

Quality of ground water was compared with IS: 10500: 1991 (Reaffirmed 1993 With Amendment NO-3 July 2010) for drinking purposes. Water samples were collected as Grab sample from five sampling locations in a 5-liter plastic jerry can and 250 ml sterilized clean glass/pet bottle for complete physico-chemical and bacteriological tests respectively. The samples were analyzed as per standard procedure / method given in IS: 3025 (Revised Part) and standard method for examination of water and wastewater Ed. 21st, published jointly by APHA.

Table 3-5: Standard Procedure

S. No	Parameters	Test Method
1	pH (at 25°C)	IS:3025(P -11)1983 RA: 2012
2	Electrical Conductivity	IS:3025(P -14) 2013
3	Colour	IS:3025 (P -4)1983 RA: 2012
4	Turbidity	IS:3025(P -10)1984 RA: 2012
5	Total Dissolved Solids	APHA 22nd Edn.2012-2540-C
6	Total Suspended Solids	IS:3025(P-17)-1984 RA:2012
7	Total Hardness as $CaCO_3$	APHA 22nd Edn.2012-2340-C
8	Calcium as Ca	APHA 22nd Edn2012.3500 Ca-B
9	Magnesium as Mg	APHA 22nd Edn.2012-3500 Mg-B
10	Chloride as Cl	IS:3025(P -32)-1988 RA: 2014
11	Sulphate as SO_4	APHA 22nd Edn.2012-4500 SO_4^--E
12	Total Alkalinity as $CaCO_3$	APHA 22nd Edn.2012-2320-B
13	Iron as Fe	IS:3025(P -53):2003 RA: 2014
14	Silica as SiO_2	IS:3025(P -35)1988 RA: 2014
15	Fluoride as F	APHA 22nd Edn.2012-4500-F-D
16	Nitrate as NO_3	IS:3025(P -34):1988 RA: 2014
17	Sodium as Na	IS:3025(P -45):1993 RA: 2014
18	Potassium as K	IS:3025(P -45):1993 RA: 2014
19	Coliform	IS:1622:1981:RA:2014
20	E.coli	IS:1622:1981:RA:2014

Table 3-6 Ground water sampling results

S. No	Parameters	Units	GW1	GW2	GW3	GW4	GW5
1	pH (at 25°C)	-	7.10	7.69	7.40	7.65	7.76
2	Electrical Conductivity	µS/cm	1547	998	1309	1276	1024
3	Colour	Hazen Unit	4.0	2.0	1.0	2.0	3
4	Turbidity	NTU	BQL(LOQ:1)	BQL(LOQ:1)	BQL(LOQ:1)	BQL(LOQ:1)	BQL(LOQ:1)
5	Total Dissolved Solids	mg/L	880	538	862	739	598
6	Total Suspended Solids	mg/L	BQL(LOQ:2)	BQL(LOQ:2)	BQL(LOQ:2)	BQL(LOQ:2)	BQL(LOQ:2)
7	Total Hardness as $CaCO_3$	mg/L	523	345	444	495	375
8	Calcium Hardness as $CaCO_3$	mg/L	360	192	285	333	211
9	Magnesium Hardness as $CaCO_3$	mg/L	162	152	158	162	161
10	Calcium as Ca	mg/L	144	77.2	114	133	76
11	Magnesium as Mg	Mg/L	39.6	37.1	38.5	39.4	38.6
12	Chloride as Cl	mg/L	161	89.5	170	176	74.1
13	Sulphate as SO_4	mg/L	131	45.3	122	82.2	71.4
14	Total Alkalinity as $CaCO_3$	mg/L	331	281	313	123	286
15	Iron as Fe	mg/L	BQL (LOQ:0.1)	BQL (LOQ:0.1)	BQL (LOQ:0.1)	BQL (LOQ:0.1)	BQL (LOQ:0.1)
16	Silica as SiO_2	mg/L	32.7	20.2	25.8	21.3	29.5
17	Fluoride as F	Mg/L	0.62	0.57	0.41	0.69	0.37

18	Nitrate as NO_3	Mg/L	14.7	17.7	41.5	46.3	51.6
19	Potassium as K	mg/L	9.81	4.12	11.5	22.1	4.8
20	Sodium as Na	mg/L	145	78.9	154	149	61.3

3.3.6 *Interpretation of results:*

3.3.6.1 Physical parameters of water:

The basic physical parameters of water include

Colour:

Value observed in Project Site (True/Apparent Color): 1 Hazen unit.

Acceptable and permissible limits: 5 Hazen units and 15 Hazen units respectively. The value in the project site is as same as the acceptable limits prescribed by IS 10500: 2012 (referred as "*Standards*" from herein).

Odour & Taste:

The water is oduorless. The taste of the water is slightly salty which is due to the presence of hardness in water, which is attributed to the presence of calcium and magnesium in the water. As per the standards, the odour and taste should be agreeable.

pH:

Value observed in the Project Site: 7.10

Acceptable and permissible limits: 6.5-8.5. The pH value is the measure of acid – base equilibrium. The value of pH in the project site clearly indicates that water is slightly neutral in nature.

Turbidity:

Value observed in the Project Site: less than 1.

Acceptable and permissible limits: 1 NTU & 5 NTU respectively. The value of turbidity generally indicates the presence of phytoplankton and other sediments.

Total Dissolved Solids:

Value observed in the Project Site: 880 mg/L.

Acceptable and permissible limits: 500 mg/L and 2000 mg/L respectively.

TDS is the presence of inorganic salts and small amounts of organic matter present in the water. This is mainly due to the result of surface runoff as the cations and anions in the topsoil is carried away by the water.

3.3.6.2 Chemical parameters of water:

The chemical parameters of the drinking water include,

Calcium:

Value observed in the Project Site: 144 mg/L.

Acceptable and permissible limits: 75mg/L and 200 mg/L respectively.

Calcium is an essential macronutrient. The value of the calcium is within the prescribed permissible standards. The higher level of calcium may cause hardening in domestic equipment and will also reduce the detergent efficiency. Higher levels of calcium will lead to constipation, gas, and bloating. Apart from that, extra calcium may also increase the risk of kidney stones. If the calcium deposit in blood is high, it may lead to hypercalcemia.

Magnesium:

Value observed in the Project Site: 39.6 mg/L.

Acceptable and permissible limits: 30 mg/L and 100 mg/L respectively.

The value of Magnesium in the project site is higher than the acceptable limit and less than the permissible limit. The increase in the level of magnesium will cause diarrhea and vomiting in children.

Chloride

Value observed in the project site: 161 mg/L.

Acceptable and permissible limits: 250 mg/L and 1000 mg/L respectively.

The chloride level in the project site is within the acceptable and permissible limit. If the level of chloride is more, it may cause galvanic and pitting corrosion, increases level of metals. It imparts bitter taste to the water.

Total Alkalinity as $CaCO_3$:

Value observed in the project site: 331 mg/L.

Acceptable and permissible limits: 200 mg/L and 600 mg/L respectively.

Total Alkalinity is the measure of the concentration of all alkaline substances dissolved in the water which includes carbonates, bicarbonates and hydroxides. The value of the total alkalinity is slightly greater in the project site, which will impart soda taste to the water.

Hardness:

Value observed in the Project Site: 523 mg/L.

Acceptable and permissible limits:200 mg/L and 600 mg/L respectively.

The value of Hardness in the project site is higher than acceptable limit but within the permissible limit. The increase in the level of hardness may cause corrosion and scaling problems, increased soap consumption and it also contributes to the salty taste of water.

3.3.7 *Surface Water Analysis*

Surface water samples were taken from **Bukkasagaram and Muthali** lake. The results are summarized below.

Table 3-7 Surface Water Sample Results

S. No	Parameters	Units	Bukkasagaram lake	Muthali lake
1	pH (at 25°C)	-	7.82	7.66
2	Electrical Conductivity	µS/cm	411	155
3	Colour	Hazen Unit	28	35
4	Turbidity	NTU	4.1	8.2
5	Total Dissolved Solids	mg/L	226	105
6	Total Suspended Solids	mg/L	6.5	12.5
7	Total Hardness as $CaCO_3$	mg/L	121	56.4
8	Calcium Hardness as $CaCO_3$	mg/L	89.1	34.7
9	Magnesium Hardness as $CaCO_3$	mg/L	32	21.7
10	Calcium as Ca	mg/L	36	13.9
11	Magnesium as Mg	mg/L	7.53	5.26

12	Chloride as Cl	mg/L	31	7.83
13	Sulphate as SO_4	mg/L	41.80	20.8
14	Total Alkalinity as $CaCO_3$	mg/L	99	50.1
15	Iron as Fe	mg/L	3	4.2
16	Silica as SiO_2	mg/L	7.52	2.78
17	Fluoride as F	mg/l	0.51	0.58
18	Nitrate as NO_2	mg/l	16.0	16.9
19	Potassium as K	mg/L	2.31	1.42
20	Sodium as Na	mg/L	28.1	5.85
21	Total Kjeldahl Nitrogen as N	mg/L	11.8	8.85
22	Biochemical oxygen Demand @ 27c		9.81	9.22
23	Chemical Oxygen Demand		34.1	28.5
24	Dissolved Oxygen		5.2	5.4

Inference: The surface water quality is compared with the CPCB Water Quality Criteria against A, B, C, D & E class of water. From the test result, it is found that both the water does not fit Class A (Drinking Water Source without conventional treatment but after disinfection). But they can be used for outdoor bathing as it meets the requirements shown for class B water.

3.3.8 *Climatology & Meteorology:*

Climate and meteorology of a place can play an important role in the implementation of any developmental project. Meteorology is also the key to understand local air quality as there is an essential relationship between meteorology and atmospheric dispersion involving wind in the broadest sense of the term.

The year may broadly be divided into four seasons:

Winter season : December to February

Pre-monsoon season : March to May

Monsoon season : July to September

Post-monsoon season : October to November

i) **Climate**

Eastern part of the district experiences hot climate and Western part has a contrasting pleasant cold climate. The district is hot and dry in summer i.e., from March to June. From July to November is the rainy season and between December to February winter prevails with very cold and misty.

ii) **Temperature**

The maximum temperature is around 36^0C and minimum temperature is 28^0C.

iii) **Rainfall:**

Krishnagiri receives rainfall from both the northeast and the southwest monsoons. Monsoon season is from the months of July to November. During this time, temperature is mild and pleasant. Heavy rainfall is expected in short intervals during this period. December to February are winter months**.** This district gets maximum rainfall in November (274.7mm).

KRISHNAGIRI DISTRICT -NORMAL AND ACTUAL RAINFALL

Unit in mm.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F
2017	5.7	0	48.7	37.9	198.6	19.1	24.6	189.7	291.7	219	54.5	56.2
2018	0	1.3	34.9	14.4	114.5	41.1	10.5	18.5	152.1	85.2	33.2	4.8
2019	13.2	1.2	4.5	47.2	96.5	33.6	34.6	94.7	138.6	177.7	48.7	39.5
2020	0.3	0	6.9	61.7	57.9	59	147.2	66.8	142.1	142	77	42.6
2021	40.1	5.8	0	46.6	75.7	32.4	137.7	70.2	134.9	140.4	282.6	19.1

Source: IMD

Metrological Data

The meteorological data – Temperature, rainfall, Wind Speed, Wind direction are recorded through AWS by setting it up in the site.

vi) Wind Rose Diagram

The wind rose denotes a class of diagrams designed to display the distribution of wind direction at a given location over a period of time. Wind roses are also useful as they project a large quantity of data in a simple graphical plot.

The wind speed & wind direction data are taken and wind rose is plotted for December 2022 to February 2023.

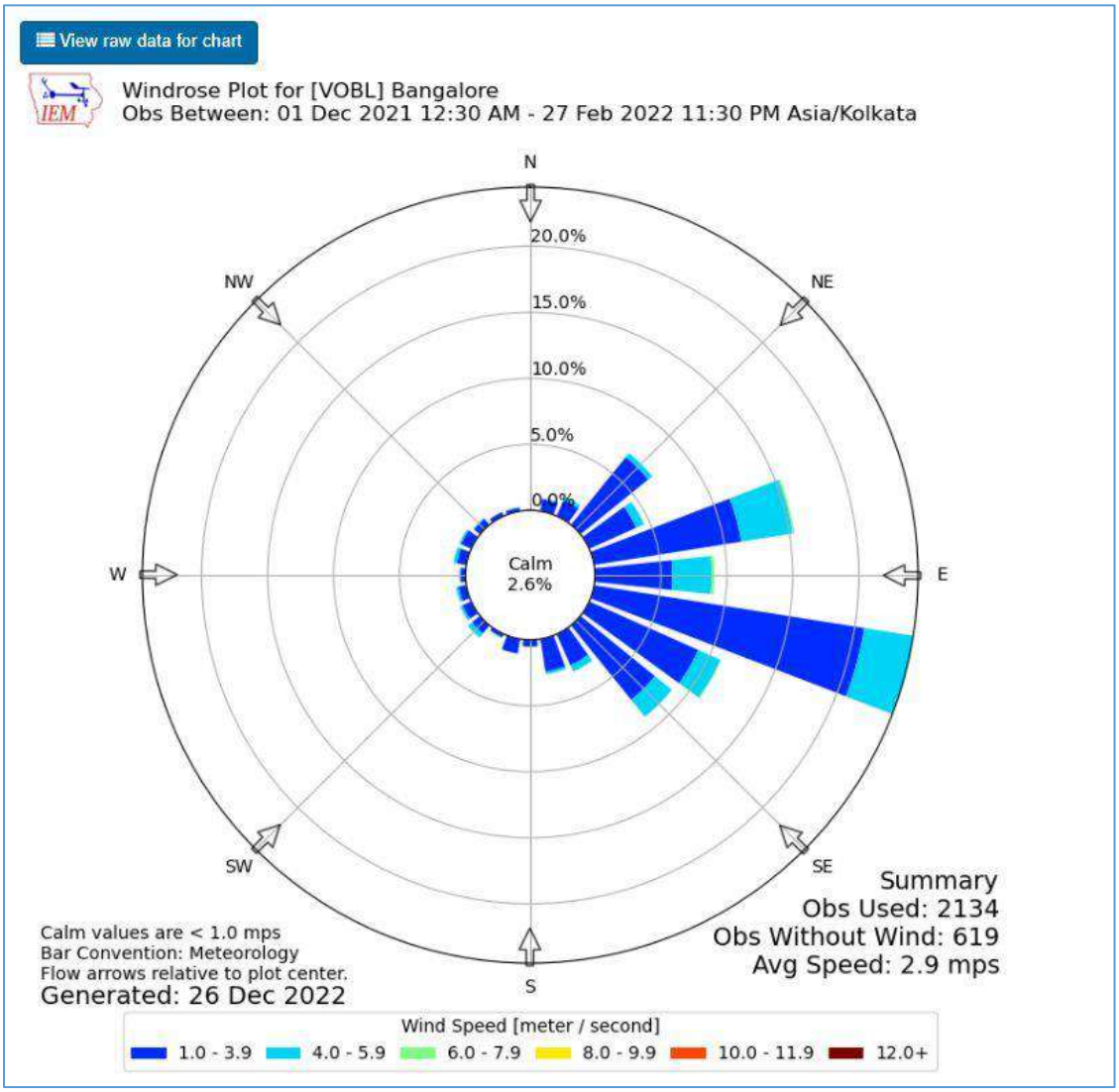


Figure 3.7 Wind rose.

3.3.9 *Selection of Sampling Locations:*

Four Monitoring locations along with the project site is selected based on Wind Direction & Wind Speed. All the monitoring locations are chosen in the downwind direction.

3.4 AMBIENT AIR QUALITY

Table 3-8: Selection of Sampling Location

<table>
<tr><td colspan="2">Environmental Parameters: Ambient Air</td></tr>
<tr><td>Monitoring Period</td><td>December 2022 to February 2023</td></tr>
<tr><td>Design Criteria</td><td>The monitoring stations are selected based on factors like topography/terrain, prevailing meteorological conditions like predominant wind direction (December 2022 to February 2023), etc., play a vital role in the selection of air sampling stations. Based on these criteria, 5 air sampling station were selected in the area as shown below.</td></tr>
<tr><td>Monitoring Locations</td><td>
<table>
<tr><th>Location & Code</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Project Site</td><td>-</td><td>-</td></tr>
<tr><td>Athimugam Masjid Al Sunnatul Jamath</td><td>3.04 km</td><td>E</td></tr>
<tr><td>Sri PattalammaDevi, Temple, Payarkuttalai</td><td>4.90 km</td><td>W</td></tr>
<tr><td>Govt.Hr Sec School, Bukkasagaram</td><td>2.91 km</td><td>S</td></tr>
<tr><td>Sivaraman Green Garden</td><td>4.11 km</td><td>N</td></tr>
</table>
</td></tr>
<tr><td>Methodology</td><td>Respirable Particulate Matter (PM10) - Gravimetric (IS 5182: Part 23:2006)
Particulate Matter PM2.5 - Gravimetric (Fine particulate matter)
Sulphur Dioxide - Calorimetric (West & Gaeke Method) (IS 5182: Part 02: 2001)
Nitrogen Dioxide - Calorimetric (Modified Jacob & Hocheiser Method) (IS 5182: Part 06:2006)</td></tr>
<tr><td>Frequency of Monitoring</td><td>2 days in a week, 4 weeks in a month for 3 months in a season.</td></tr>
</table>

3.4.1 *Ambient Air Quality: Results & Discussion*

The test results of the ambient air quality monitored in project site and other four locations is summarized below.

Table 3-9 Ambient Air Quality

Code	Location	PM 10 (µg/m³)				PM 2.5 (µg/m³)				SO_2 (µg/m³)				NOx (µg/m³)			
		Min	Max	Avg	98 percentiles	Min	Max	Avg	98 percentiles	Min	Max	Avg	98 percentiles	Min	Max	Avg	98 percentiles
AAQ 1	Project Site	33	47	38.2	45.1	14	21	17.0	20.7	5	8	6.6	8.0	10	19	14.3	18.97
AAQ 2	Sri PattalammaDevi, Temple, Payarkuttalai	39	50	44.9	49.7	17	23	20.4	23.1	4	11	7.0	10.22	10	24	15.3	22.43
AAQ 3	Sivamurugan Green Garden	46	57	51.3	56.6	18	29	23.3	27.9	6	13	8.2	12.04	12	27	17.5	26.31
AAQ 4	Athimugam Masjid Al Sunnatul Jamath	41	53	48.1	52.6	18	25	21.8	24.7	4	10	6.7	9.17	10	21	14.8	20.43
AAQ 5	Govt.Hr Sec School, Bukkasagaram	47	57	52.1	56.4	21	27	23.6	26.8	7	13	9.2	13.13	14	29	20.7	28.44
NAAQ Standards - Residential Area		100 (µg/m³)				60(µg/m³)				80 (µg/m³)				80 (µg/m³)			

3.4.2 *Interpretation of ambient air quality:*

To assess the impact, AAQ were monitored in project site and four locations.

Observation:

The Maximum value of PM10 (57(µg/m^3), PM 2.5(29(µg/m^3), SOx (13(µg/m^3), NOx (29 (µg/m^3) is observed in different places.

Inference:

The monitoring results for PM10, PM2.5, Sox, NOx was found to be high in Sri PattalammaDevi, Temple, Payarkuttalai and Athimugam Masjid Al Sunnatul Jamath which is due to high movement of vehicles. The observed values are all well within the Standards prescribed by NAAQ.

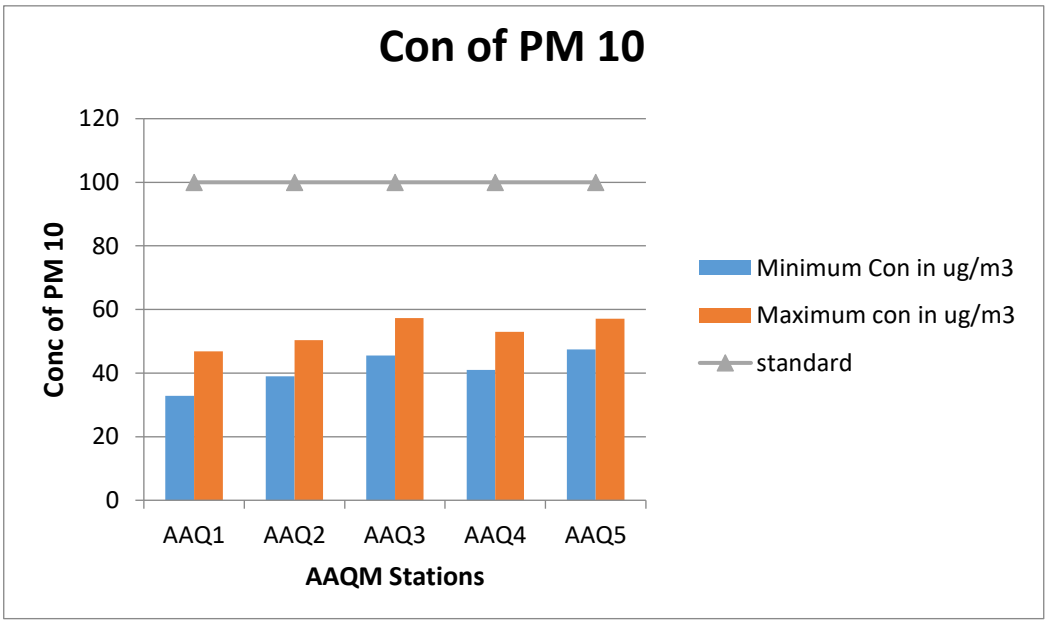


Figure 3.8 Concentration of PM10 (µg/m^3) in Study Area

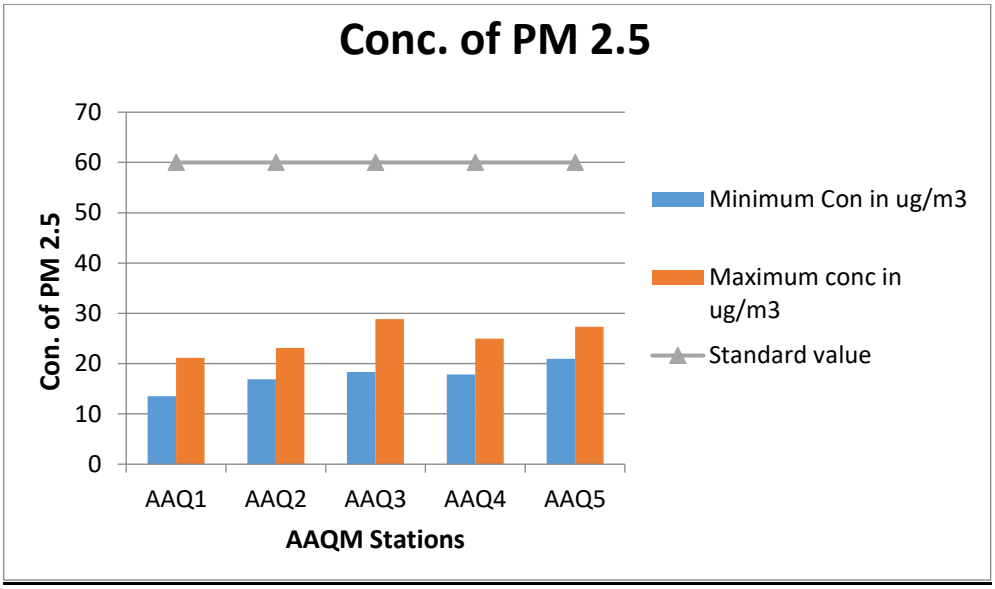


Figure 3.9 Concentration of PM2.5 (µg/m^3) in Study Area

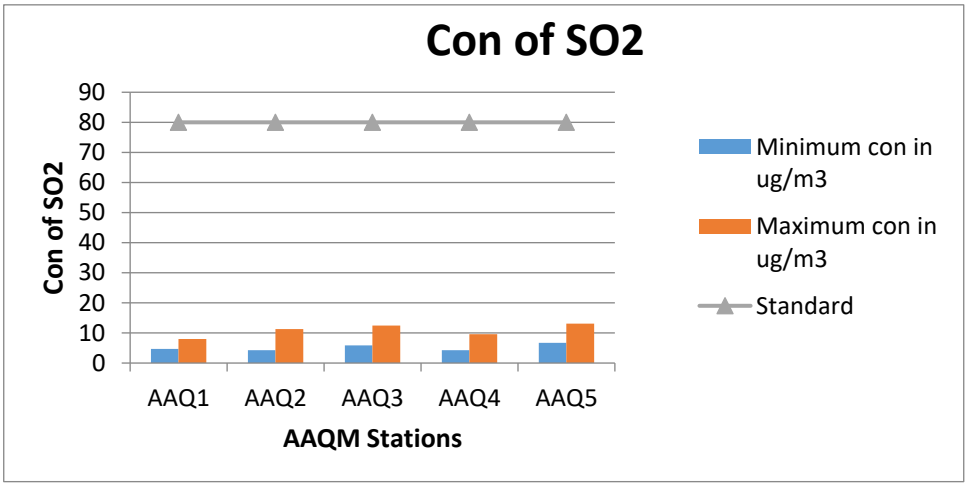


Figure 3.10 Concentration of SOx (µg/m^3) in Study Area

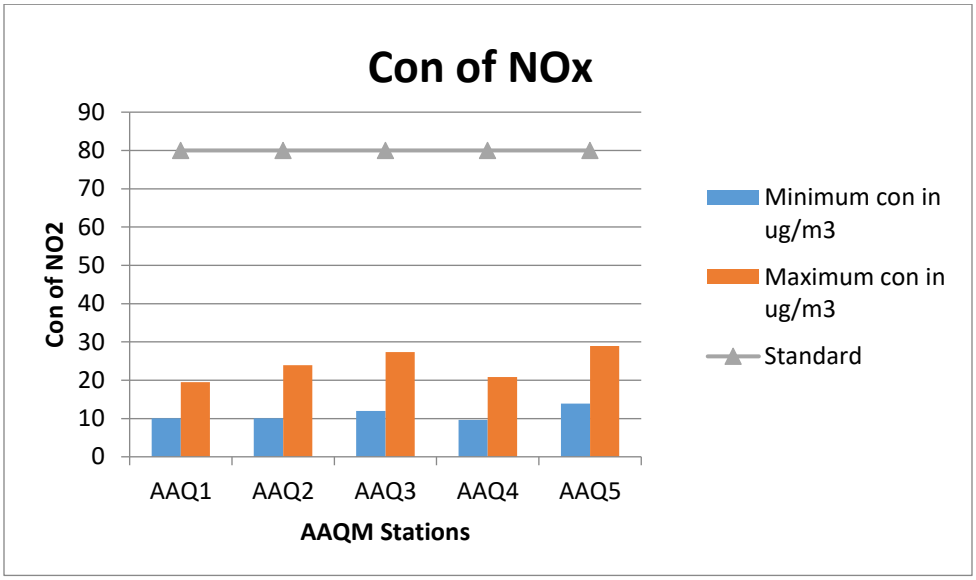


Figure 3.11 Concentration of NOx (µg/m³) in Study Area

3.5 NOISE ENVIRONMENT:

Table 3-10 Noise Analysis

Environmental Parameters*: Noise Analysis*	
Monitoring Period	December 2022 to February 2023
Design Criteria	Based on the Sensitivity of the area
Monitoring Locations	Project Site – N 1 Sri Pattalamma Devi, Temple, Payarkuttalai – N 2 Govt.Hr Sec School, Bukkasagaram - N 3 Athimugam Masjid Al Sunnatul Jamath - N 4 Sivaraman green Garden – N 5
Methodology	Noise level measurements were taken at the selected locations using noise level meter both during day and night time. Noise level measurements were taken continuously for 24 hours at hourly intervals
Frequency of Monitoring	Noise samples were collected from 5 locations - Once in a season

Ambient Noise Levels are monitored in the chosen 5 Locations including the project Site and the monitoring results are summarized below

3.5.1 *Day Noise Level (Leq day)*

Table 3-11 Day Noise Level (Leq day)

Location	Leq day in dB(A)		
	Max	Min	Average
Project Site	53	42	48
Athimugam Masjid Al Sunnatul Jamath	54	45	50
Sri PattalammaDevi, Temple, Payarkuttalai	56	44	51
Govt.Hr Sec School, Bukkasagaram	57	45	53
Sivaraman green Garden	59	45	54

3.5.2 *Night Noise Level (Leq Night)*

Table 3-12 Night Noise Level (Leq Night)

Location	Leq Night in dB(A)		
	Max	Min	Average
Project Site	43	35	38
Athimugam Masjid Al Sunnatul Jamath	44	39	41
Sri PattalammaDevi, Temple, Payarkuttalai	44	37	41
Govt.Hr Sec School, Bukkasagaram	45	40	42
Sivaraman green Garden	45	40	43

Observation:

The maximum Day noise and Night noise were found to be 59 dB(A) and 45 dB(A) respectively 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.

3.6 SOIL ENVIRONMENT

Soil environment is studied for 10 km radius from the project site. The 5 km radius image shows that the soil is not affected by any kind of erosion.

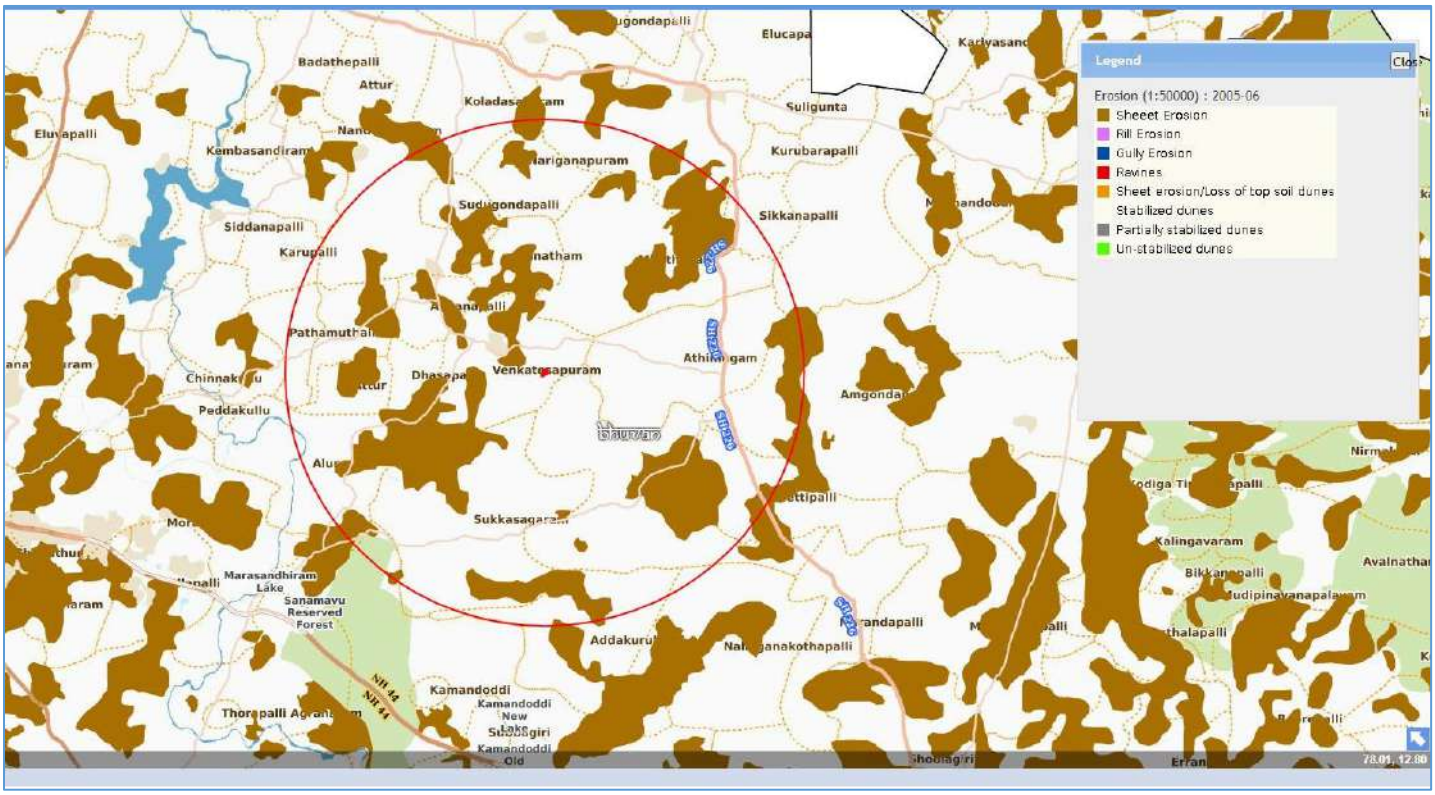


Figure 3.12 Soil Erosion pattern within 5 km radius of the project site

3.6.1 *Baseline Data:*

The present study of the soil quality establishes the baseline characteristics which will help in future in identifying the incremental concentrations if any, due to the operation Phase

of the proposed project. The sampling locations have been identified with the following objectives:

- To determine the impact of proposed project on soil characteristics and
- To determine the impact on soils more importantly from agricultural productivity point of view.

Table 3-13 Soil Quality Analysis

Environmental Parameters*: Soil Quality Analysis*	
Monitoring Period	December 2022 to February 2023
Design Criteria	Based on the environmental settings of the study area
Monitoring Locations	Project Site – SQ 1 Athimugam Masjid Al Sunnatul Jamath-SQ 2 Sri PattalammaDevi Temple, Payarkuttalai-SQ 3 Govt.Hr.sec school, Bukkasagaram-SQ4 Sivaraman green Garden -SQ 5
Methodology	Composite soil samples using sampling augers and field capacity apparatus
Frequency of Monitoring	Soil samples were collected from 5 locations Once in a season

To assess the soil quality of the study area, 5 monitoring stations were selected and the results are summarized below.

Table 3-14 Soil Quality Analysis

Parameters	**Unit**	**SQ 1**	**SQ 2**	**SQ 3**	**SQ 4**	**SQ 5**
pH	-	7.95	8.80	7.02	7.60	6.80
Electrical Conductivity	ms/cm	0.10	0.45	0.18	0.12	0.16
Water holding Capacity	ml/L	8.54	9.56	7.50	8.60	9.97
Chloride	mg/Kg	88.3	271	95.5	102	57.1
Calcium	mg/Kg	39.4	67.8	39.7	36.5	19.0

Sodium	mg/Kg	252	275	173	120	114
Potassium	mg/Kg	312	335	219	206	242
Organic matter	%	0.21	0.32	0.26	0.19	0.32
Magnesium	mg/Kg	35.2	72.4	51.2	47.8	28.6
Sulphate	mg/Kg	71.2	244	29.6	36.4	29.3
CEC	meq/100g	10.4	14.8	11.4	12.8	13.5
Carbonate	mg/Kg	NIL	NIL	NIL	NIL	NIL
Bi-Carbonate	mg/Kg	304	346	304	210	136
TKN	%	0.21	0.24	0.22	0.31	0.35
Bulk density	g/cm^3	1.21	1.20	1.25	1.22	1.23
Phosphorous	mg/Kg	146	167	152	145	178
Sand	%	65.7	46.5	57	42.7	22.7
Clay	%	15	10.0	2	5.05	25
Silt	%	21	44.5	41.0	52.2	52.3
SAR	meq/Kg	1.76	1.80	2.10	0.17	1.90
silicon	%	0.64	0.82	0.91	0.74	0.85

3.6.1.1 Physical Properties:

Regular cultivation practices increase the bulk density of soils thus inducing compaction. This results in reduction in water percolation rate and penetration of roots through soils. The soils with low bulk density have favorable physical conditions whereas those with high bulk density exhibit poor physical conditions for agriculture crops. The bulk density of the soil in the study area ranged between 1.20 to 1.31 meq/100g which indicates favorable physical condition for plant growth. The water holding capacity was found in the range of 7.50 ml/l to 9.97ml/l.

3.6.1.2 Chemical Properties:

Chemical characteristics of soils include pH, exchangeable cations and fertility status in the form of NPK values and organic matter. The value of the pH ranges from 6.80 to 8.80, which it indicates majority of pH of the soil is slightly alkaline. The soil in the project site is sodic in nature, which challenges because they tend to have very poor structure which limits or prevents water

infiltration and drainage. The organic matter varies from 0.19 to 0.32 %, which indicates the soil is slightly unfertile.

3.7 ECOLOGY AND BIODIVERSITY

Ecology and Biodiversity is studied for 10 km radius around the project site. Project site and 2km around the project site is considered as core zone and from 2 km to 10 km radius, it is considered as buffer zone.

- Primary field survey is carried out for the assessment of flora and fauna in the core zone.
- Secondary data from Journals/Literature were studied and compiled to understand the species present in the buffer zone.

3.7.1 *Methods available for floral analysis:*

3.7.1.1 Plot Sampling Methods

- Quadrat – 2D shape (e.g. square or rectangle, or other shape) used as a sampling unit
- Transect
    - Line transects feature only a length dimension, usually defined by a tape stretched across the area to be sampled.
    - Belt transects have a width as well as length.
    - Pace-transects are established when the observer strides along an imaginary line across the sample site and uses their foot placement to determine specific sampling points.

3.7.1.2 Plot less Sampling Methods

- Closest individual method - Distance is measured from each random point to the nearest individual.
- Nearest neighbour method - Distance is measured from an individual to its nearest neighbour.
- Random pairs method - Distance is measured from one individual to another on the opposite side of the sample point.

- Point-centered quarter (PCQ) method - Distance is measured from the sampling point to the nearest individual in each quadrat.

3.7.2 *Field study& Methodology adopted:*

To assess the suitability of the methodology, a random field survey was done. Field survey was conducted around a 2 km radius from the project site and five locations were chosen based on the species density. Quadrat method is chosen for the proposed study as compared to other sampling methods, because they are relatively simple to use. Quadrat plots are uniform in size and shape and distributed randomly throughout the sample area, which makes the study design straightforward. They are also one of the most affordable techniques because they require very few materials.

3.7.3 *Study outcome:*

Phyto-sociological parameters, such as ***Density, Frequency, Basal Area, Abundance and Importance Value Index*** of individual species (Trees) were determined in randomly placed quadrate of different sizes in the study area. Relative frequency, relative basal area and relative density were calculated and the sum of these three represented Importance Value Index (IVI) for various species. For shrubs, herbs and grasses, ***Density, Frequency, Relative Density & Relative Frequency were found***.

Sample plots were selected in such a way to get maximum representation of different types of vegetation and plots were laid out in different parts of the study area of 2 km radius. Analysis of the vegetation will help in determining the relative importance of each species in the study area and to reveal if any economically valuable species is threatened in the process.

Table 3-15 Calculation of Density, Frequency (%), Dominance, Relative Density, Relative Frequency, Relative Dominance & Important Value Index

Parameters	Formula
Density	Total No. of individuals of species/ Total No. of Quadrats used in sampling
Frequency (%)	(Total No. of Quadrats in which species occur/ Total No. of Quadrats studied) * 100

Dominance	Total Basal Area /Total area sampled
Abundance	Total No. of individuals of species/ No. of Quadrats in which they occur
Relative Density	(Total No. of individuals of species/Sum of all individuals of all species) * 100
Relative Frequency	(Total No. of Quadrats in which species occur/ Total No. of Quadrats occupied by all species) * 100
Relative Dominance	Dominance of a given species/Total Dominance of all species
Important Value Index	Relative Density + Relative Frequency + Relative Dominance

Table 3-16 Tree Species in the core Zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Dominance	Relative Density	Relative Frequency	Relative Dominance	IVI	IUCN Conservation Status
1	Ficus Carica	Athi Maram	2	2	6	0.33	33.33	1	0.28	1.68	2.17	4.45	8.31	Least Concern
2	Cocos nucifera	Thennai	10	6	6	1.67	100.0	1.67	0.15	8.40	6.52	2.39	17.32	Not assessed
3	Azadirachta indica	Veppam	17	6	6	2.83	100.0	2.83	0.13	14.29	6.52	1.98	22.79	Not assessed
4	Tamarindus indica	Puli	10	6	6	1.67	100.0	1.66	0.20	8.40	6.52	3.09	18.02	Not assessed
5	Mangifera indica	Mamaram	7	6	6	1.17	100.0	1.16	0.07	5.88	6.52	1.11	13.52	Data insufficient
6	Morinda pubescens	Nuna	6	6	6	1.00	100.0	1	0.24	5.04	6.52	3.74	15.31	Not assessed
7	Couroupita guianensis	Nagalingam	5	3	6	0.83	50.00	1.67	0.14	4.20	3.26	2.18	9.64	Not assessed
8	Bombax ceiba	Sittan	4	4	6	0.67	66.67	1	0.08	3.36	4.35	1.27	8.98	Not assessed
9	Acacia nilotica	Karuvelai	4	4	6	0.67	66.67	1	0.28	3.36	4.35	4.45	12.16	Least Concern
10	Bambusa vulgaris	Moongil	4	4	6	0.67	66.67	1	0.50	3.36	4.35	7.92	15.63	Not assessed
11	Syzygium cumini	naval	5	1	6	0.83	16.67	5	0.11	4.20	1.09	1.79	5.07	Not assessed
12	Carica papaya	Papaya	3	3	6	0.50	50.00	1	0.09	2.52	3.26	1.43	7.21	Not assessed
13	Psidium guajava	Guava	3	3	6	0.50	50.00	1	0.23	2.52	3.26	3.61	9.39	Not assessed
14	Cassia siamea	ManjalKonrai	3	2	6	0.50	33.33	1.5	0.07	2.52	2.17	1.11	5.81	Least Concern
15	Ficus religiosa	Arasa maram	3	3	6	0.50	50.00	1	0.09	2.52	3.26	1.35	7.13	Not assessed

16	Musa paradise	Vaazhai	3	3	6	0.50	50.00	1	0.08	2.52	3.26	1.19	6.97	Not assessed
17	Prosopis juliflora	Vaelikaruvai	3	3	6	0.50	50.00	1	0.21	2.52	3.26	3.34	9.13	Not assessed
18	Tectona grandis	Thekku	3	3	6	0.50	50.00	1	0.12	2.52	3.26	1.88	7.66	Not assessed
19	Thespesia populnea	Poovarasam	3	3	6	0.50	50.00	1	0.15	2.52	3.26	2.39	8.18	Not assessed
20	Causuarina equisetifolia	Savukku	2	2	6	0.33	33.33	1	0.21	1.68	2.17	3.34	7.20	Not assessed
21	Alstonia scholaris	Elilaipalai	2	2	6	0.33	33.33	1	0.27	1.68	2.17	4.31	8.16	Least Concern
22	Anacardium occidentale	Cashew	1	1	6	0.17	16.67	1	0.44	0.84	1.09	6.96	8.88	Not assessed
23	Artocarpus heterophyllus	Palaa	2	2	6	0.33	33.33	1	0.18	1.68	2.17	2.85	6.70	Not assessed
24	Aegle marmelos	Vilvam	1	1	6	0.17	16.67	1	0.16	0.84	1.09	2.50	4.43	Not assessed
25	Delonix elata	Perungondrai	1	1	6	0.17	16.67	1	0.17	0.84	1.09	2.62	4.54	Least Concern
26	Pithecellobium dulce	Kodukapuli	1	1	6	0.17	16.67	1	0.14	0.84	1.09	2.18	4.11	Not assessed
27	Citrus medica	Elumichai	2	2	6	0.33	33.33	1	0.23	1.68	2.17	3.61	7.46	Not assessed
		Total	110	83					5.02					

Table 3-17 Shrubs in the Core Zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation Status
1	Jatropagossypifolia	Kaatamanaku	32	17	24	1.17	0.71	1.65	14.43	17.17	Not Assessed
2	Calotropis gigantea	Erukam	16	12	24	0.58	0.50	1.17	7.22	12.12	Not Assessed

3	Tabernaemontanadivaricata	Crepe Jasmine	4	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
4	Catharanthus roseus	Nithyakalyani	4	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
5	Datura metal	Ummattangani	7	4	24	0.21	0.17	1.25	2.58	4.04	Not Assessed
6	Robiniapseudoacacia	Black locust	15	5	24	0.71	0.21	3.4	8.76	5.05	Least Concern
7	Acalypha indica	Kuppaimeni	18	8	24	0.83	0.33	2.5	10.31	8.08	Not Assessed
8	Stachytarpheaurticifolia	Rat tail	13	9	24	0.63	0.38	1.67	7.73	9.09	Not Assessed
9	Woodfordiafruiticosa	Velakkai	4	3	24	0.13	0.13	1	1.55	3.03	Least Concern
10	Hibiscus rosa sinensis	Sembaruthi	3	2	24	0.13	0.08	1.5	1.55	2.02	Not Assessed
11	Lantana camara	Unnichedi	8	6	24	0.38	0.25	1.5	4.64	6.06	Not Assessed
12	Parthenium hysterophorous	Vishapoondu	45	13	24	2.08	0.54	3.85	25.77	13.13	Not Assessed
13	Euphorbia geniculata	Amman Pacharisi	5	3	24	0.13	0.13	1	1.55	3.03	Not Assessed

Table 3-18 Herbs & Grasses in the core zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation status
1	Helicteresisora	Valampuri	4	2	30	0.07	0.07	1	0.79	2.15	Not assessed
2	Tridax procumbens	Vettukaayathalai	7	4	30	0.17	0.13	1.25	1.98	4.30	Not assessed
3	Heraculem spondylium	Hog Weed	19	10	30	0.67	0.33	2	7.94	10.75	Not assessed
4	Tridax procumbens	Cuminipachai	18	4	30	0.50	0.13	3.75	5.95	4.30	Not assessed
5	Senna occidentalis	Nattamsakarai	30	4	30	0.83	0.13	6.25	9.92	4.30	Not assessed
6	Plumbago zeylanica	Chittiramoolam	12	3	30	0.10	0.10	1	1.19	3.23	Not assessed
7	Scrophularia nodosa	Sarakkothini	18	7	30	0.50	0.23	2.14	5.95	7.53	Not assessed

8	Viburnum dentatum	Viburnum	7	5	30	0.17	0.17	1	1.98	5.38	Least concern
9	Cynodondactylon	Arugu	15	6	30	0.40	0.20	2	4.76	6.45	Not assessed
10	Euphorbia hirta	Amman Pacharisi	7	4	30	0.17	0.13	1.25	1.98	4.30	Not assessed
11	Sida cordifolia	Maanikham	50	4	30	1.50	0.13	11.25	17.86	4.30	Not assessed
12	Sida acuta	Malaidangi	12	3	30	0.33	0.10	3.33	3.97	3.23	Not assessed
13	Laportea canadensis	Peruganchori	28	20	30	1.00	0.67	1.5	11.90	21.51	Not assessed
14	Sporobolus fertilis	Giant Parramatta Grass	10	4	30	0.30	0.13	2.25	3.57	4.30	Not assessed
15	Tephrosia purpurea	Kavali	23	4	30	0.67	0.13	5	7.94	4.30	Not assessed

3.7.4 *Calculation of species diversity by Shannon – wiener Index, Evenness and richness by Margalef:*

Biodiversity index is a quantitative measure that reflects how many different types of species, there are in a dataset, and simultaneously takes into account how evenly the basic entities (such as individuals) are distributed among those types of species. The value of biodiversity index increases both when the number of types increases and when evenness increases. For a given number of type of species, the value of a biodiversity index is maximized when all type of species are equally abundant. Interpretation of Vegetation results in the study area is given below.

Table 3-19 Calculation of species diversity

Description	**Formula**
Species diversity – Shannon – Wiener Index	$H=\Sigma[(p_i)*\ln(p_i)]$ Where p_i : Proportion of total sample represented by species i:number of individuals of species i/ total number of samples
Evenness	H/H_{max} $H_{max} = \ln(s)$= maximum diversity possible S=No. of species
Species Richness by Margalef	RI = S-1/ln N Where S = Total Number of species in the community N = Total Number of individuals of all species in the community

3.7.5 *Calculation of species diversity by Shannon – wiener Index, Evenness and richness by Margalef for trees*

i. Species Diversity

Scientific Name	**Common Name**	**No. of Species**	**Pi**	**ln (Pi)**	**Pi x ln (Pi)**
Ficus Carica	Athi Maram	2	0.018182	-4.00733	-0.07286
Cocos nucifera	Thennai	10	0.090909	-2.3979	-0.21799
Azadirachta indica	Veppam	17	0.154545	-1.86727	-0.28858
Tamarindus indica	Puli	10	0.090909	-2.3979	-0.21799
Mangifera indica	Mamaram	7	0.063636	-2.75457	-0.17529
Morinda pubescens	Nuna	6	0.054545	-2.90872	-0.15866
Couroupita guianensis	Nagalingam	5	0.045455	-3.09104	-0.1405
Bombax ceiba	Sittan	4	0.036364	-3.31419	-0.12052

Acacia nilotica	Karuvelai	4	0.036364	-3.31419	-0.12052
Bambusa vulgaris	Moongil	4	0.036364	-3.31419	-0.12052
Syzygium cumini	naval	5	0.045455	-3.09104	-0.1405
Carica papaya	Papaya	3	0.027273	-3.60187	-0.09823
Psidium guajava	Guava	3	0.027273	-3.60187	-0.09823
Cassia siamea	ManjalKonrai	3	0.027273	-3.60187	-0.09823
Ficus religiosa	Arasa maram	3	0.027273	-3.60187	-0.09823
Musa paradise	Vaazhai	3	0.027273	-3.60187	-0.09823
Prosopis juliflora	Vaelikaruvai	3	0.027273	-3.60187	-0.09823
Tectona grandis	Thekku	3	0.027273	-3.60187	-0.09823
Thespesia populnea	Poovarasam	3	0.027273	-3.60187	-0.09823
Causuarina equisetifolia	Savukku	2	0.018182	-4.00733	-0.07286
Alstonia scholaris	Elilaipalai	2	0.018182	-4.00733	-0.07286
Anacardium occidentale	Cashew	1	0.009091	-4.70048	-0.04273
Artocarpus heterophyllus	Palaa	2	0.018182	-4.00733	-0.07286
Aegle marmelos	Vilvam	1	0.009091	-4.70048	-0.04273
Delonix elata	Perungondrai	1	0.009091	-4.70048	-0.04273
Pithecellobium dulce	Kodukapuli	1	0.009091	-4.70048	-0.04273
Citrus medica	Elumichai	2	0.018182	-4.00733	-0.07286
Total		110			-3.02215005

H (Shannon Diversity Index) =3.02

Shrubs

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Jatropagossypifolia	Kaatamanaku	32	0.183908	-1.69332	-0.31142
Calotropis gigantea	Erukam	16	0.091954	-2.38647	-0.21945
Tabernaemontanadivaricata	Crepe Jasmine	4	0.022989	-3.77276	-0.08673
Catharanthus roseus	Nithyakalyani	4	0.022989	-3.77276	-0.08673
Datura metal	Ummattangani	7	0.04023	-3.21315	-0.12926
Robiniapseudoacacia	Black locust	15	0.086207	-2.45101	-0.21129
Acalypha indica	Kuppaimeni	18	0.103448	-2.26868	-0.23469
Stachytarpheaurticifolia	Rat tail	13	0.074713	-2.59411	-0.19381
Woodfordiafruiticosa	Velakkai	4	0.022989	-3.77276	-0.08673
Hibiscus rosa sinensis	Sembaruthi	3	0.017241	-4.06044	-0.07001
Lantana camara	Unnichedi	8	0.045977	-3.07961	-0.14159
Parthenium hysterophorous	Vishapoondu	45	0.258621	-1.35239	-0.34976
Euphorbia geniculata	Amman Pacharisi	5	0.028736	-3.54962	-0.102
Total		174			-2.2234

H (Shannon Diversity Index) =2.22

Herbs

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Helicteresisora	Valampuri	4	0.015385	-4.17439	-0.06422
Tridax procumbens	Vettukaayathalai	7	0.026923	-3.61477	-0.09732
Heraculem spondylium	Hog Weed	19	0.073077	-2.61624	-0.19119
Tridax procumbens	Cuminipachai	18	0.069231	-2.67031	-0.18487
Senna occidentalis	Nattamsakarai	30	0.115385	-2.15948	-0.24917
Plumbago zeylanica	Chittiramoolam	12	0.046154	-3.07577	-0.14196
Scrophularia nodosa	Sarakkothini	18	0.069231	-2.67031	-0.18487
Viburnum dentatum	Viburnum	7	0.026923	-3.61477	-0.09732
Cynodondactylon	Arugu	15	0.057692	-2.85263	-0.16457
Euphorbia hirta	Amman Pacharisi	7	0.026923	-3.61477	-0.09732
Sida cordifolia	Maanikham	50	0.192308	-1.64866	-0.31705
Sida acuta	Malaidangi	12	0.046154	-3.07577	-0.14196
Laportea canadensis	Peruganchori	28	0.107692	-2.22848	-0.23999
Sporobolus fertilis	Giant Parramatta Grass	10	0.038462	-3.2581	-0.12531
Tephrosia purpurea	Kavali	23	0.088462	-2.42519	-0.21454
Total		260			-2.51

H (Shannon Diversity Index) =2.51

i. Species diversity calculation

Details	H	Hmax	Evenness	Species Richness (Margalef)
Trees	3.02	3.36	0.89	5.95
Shrubs	2.22	2.56	0.86	2.32
Herbs	2.51	2.70	0.92	2.51

From the above, it can be interpreted that herb community has higher diversity. While the tree community shows less diversity. It is also observed that most of the quadrates have controlled generation of plant species with older strands. Higher herb species diversity can be interpreted as a greater number of successful species and a more stable ecosystem where more ecological niches are available, environmental change is less likely to be damaging to the ecosystem. Species richness is high for herb community when compared with tree and shrubs.

3.7.6 *Floral study in the Buffer Zone:*

Economically important Flora of the study area

Agricultural crops: Paddy, Maize, Ragi, Banana, Sugarcane, Cotton, Tamarind, Coconut, Mango, Groundnut, Vegetables and Flowers by the local people.

Medicinal species: The nearby area is also endowed with the several medicinal species which are commonly available in the shrub forest and waste lands. The common medicinal species of the region are Asparagus racemosus (satamulli), Aegle marmelos (golden apple), Azadirachta indica (Neem) etc.

Rare and endangered floral species: There are no rare or endangered or threatened (RET) species of in the study area. During the vegetation survey, there are no any species which are endangered or threatened under IUCN (International Union for Conservation of Nature and Natural resources) guidelines.

3.7.7 *Faunal Communities*

Both direct and indirect observation methods were used to survey the fauna.

- Point Survey Method: Observations were made in each site for 15 minutes duration.

Roadside Counts: The observer traveled by motor vehicles from site to site, all sightings were recorded (this was done both in the day and night time). An index of abundance of each species was also established.

Pellet and Track Counts: All possible animal tracks and pellets were identified and recorded (South Wood, 1978).

Additionally, survey of relevant literature was also done to consolidate the list of fauna distributed in the buffer zone.

Based on the Wildlife Protection Act, 1972 (WPA 1972, Anonymous. 1991, Upadhyay 1995, Chaturvedi and Chaturvedi 1996) species were short-listed as Schedule II or I and considered herein as endangered species. Species listed in Ghosh (1994) are considered as Indian Red List species.

Methodology Adopted:

Point Survey method was adopted for this development project where observations were made in each site for 15 minutes duration (10 times).

Study in the core zone:

Point Survey method was adopted for the study within 2 km radius and the following species were observed.

Mammals: No wild mammalian species was directly sighted during the field survey. Discussion with local villagers located around the study area also could not confirm presence of any wild animal in that area. Three stripped Palm Squirrel, Common Indian Hare, Common mongoose, Common Mouse etc were observed during primary survey.

Avifauna: Since birds are considered to be the indicators for monitoring and understanding human impacts on ecological systems (Lawton, 1996) attempt was made to gather quantitative data on the avifauna by walk through survey within the entire study area and surrounding areas. From the primary survey, a total of 26 species of avifauna were identified and recorded in the study area. The diversity of avifauna from this region was found to be quite high and encouraging.

The list of fauna species found in the study area is mentioned in Table below.

Table 3-20 List of fauna species

Scientific Name	Common Name	Schedule of wild life protection act	IUCN conservation status
Mammals			
Funambulus pennanti	Palm Squirrel	IV	Least Concern
Mus rattus	Indian rat	IV	Not listed
Bandicota bengalensis	Indian mole rat	IV	Least Concern
Funambulus palmarum	Three stripped palm squirrel	IV	Least Concern
Herestes edwardsii	Common Mangoose	IV	Not listed
Mus musculus	Common Mouse	IV	Least Concern
Bandicota indica	Rat	IV	Least Concern
Lepus nigricollis	Indian Hare	IV	Least Concern
Felis catus	Cat	Not listed	Not listed
Canis lupus familiaris	Indian dog	Not listed	Not listed
Bos Indicus	Indian Cow	Not listed	Not listed
Bubalus bubalis	Buffalo	I	Not listed

Sus scrofa domesticus	Domestic pig	Not listed	Not listed
Birds			
Milvus migrans	Black kite	IV	Least concern
Saxicoloides fulicatus	Indian Robin	IV	Least concern
Pycnonotus cafer	Red vented Bulbul	IV	Least concern
Phragamaticola aedon	Thick billed warbler	IV	Least concern
Pericrocotus cinnamomeus	Small Minivet	IV	Least concern
Eudynamys scolopaceus	Koel	IV	Least concern
Psittacula krameni	Rose ringed parakeet	IV	Least concern
Dicrurus marcocercus	Black drongo	IV	Least concern
Columba livia	Rock pigeon	IV	Least concern
Corvus splendens	House crow	IV	Least concern
Alcedo atthis	Small blue kingfisher	IV	Least concern
Cuculus canorus	Common Cukoo	IV	Least concern
Reptiles & Amphibians			
Chameleon zeylanicum	Chameleon	IV	Not listed
Calotes versicolor	Common garden lizard	II	Not listed
Bungarus caeruleus	Common krait	IV	Not listed
Ophisops leschenaultia	Snake eyed lizard	--	Not listed
Bufo melanostictus	Toad	IV	Least concern
Ptyas mucosa	Rat snakes	IV	Least concern
Hemidactylus sp.	House lizard	--	Not listed
Butterflies			
Danaus chrysippus	Plain Tiger	--	Not listed
Papilio demoleus	Common lime	--	Not listed
Euploea core	Common crow	--	Least concern
Danaus genutia	Common tiger	--	Not listed
Eurema brigitta	Small grass yellow	--	Least concern

3.8 DEMOGRAPHY AND SOCIO ECONOMICS

The demography survey study is done within 10km radius from the project site.

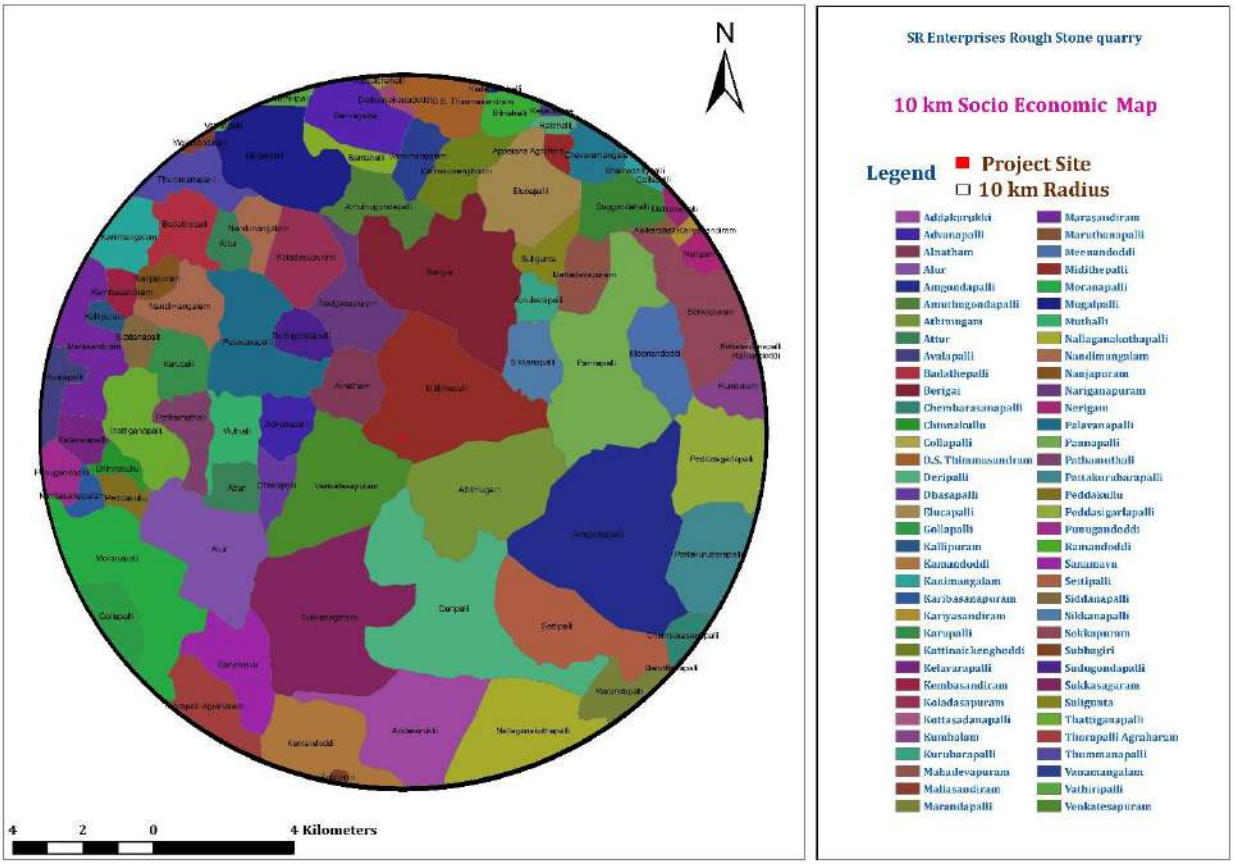


Figure 3.13 Socio Economic map surrounding the project site.

The population, Household, Sex ratio, Literacy rate, SC, ST details for all the villages in the study area is listed below:

Table 3-21: Demography Survey Study

Source: Census of India, 2011

S.No	Villages	Household	Population	Sex Ratio		Literacy Rate		SC	ST
				Male	Female	Male	Female		
1	Kariyasandiram	95	346	184	162	23	24	0	0
2	Amuthugondapalli	120	543	274	269	131	97	228	0
3	Koladasapuram	221	857	429	428	276	216	390	0
4	Midithepalli	287	1287	667	620	369	261	278	31

5	Kumbalam	164	761	394	367	254	159	0	95
6	Athimugam	937	4540	2339	2201	1317	980	334	17
7	Venkatesapuram	650	2873	1484	1389	960	695	583	0
8	Advanapalli	58	239	123	116	75	50	1	0
9	Sudugondapalli	87	447	229	218	128	89	95	0
10	Palavanapalli	258	1096	540	556	349	288	370	0
11	Nandimangalam	591	2602	1314	1288	797	609	713	0
12	Pathamuthali	205	967	499	468	275	198	392	0
13	Muthalli	108	444	223	221	132	90	130	0
14	Dhasapalli	152	894	443	451	202	161	1	0
15	Alur	678	3018	1569	1449	1058	736	178	5
16	Bukkasagaram	460	2126	1109	1017	742	471	319	0
17	Doripalli	852	3681	1898	1783	1165	848	596	0
18	A.Settipalli	605	2764	1428	1336	960	635	509	11
19	Moranapalli	2174	9160	4855	4305	3403	2439	1503	13
20	Maruthanapalli	1093	4816	2532	2284	1547	1054	422	0
21	Shoolagiri	2101	9530	4788	4742	3480	2923	1487	0
22	Onalvadi	1607	6656	3411	3245	2475	1968	1360	0
23	Sanamavu	925	4248	2182	2066	1487	1062	659	183
24	Halekotta	707	2990	1535	1455	1071	760	209	83
25	Samanapalli	721	3198	1635	1563	922	730	304	0

3.9 TRAFFIC IMPACT ASSESSMENT

Traffic data collected continuously for 24 hours by visual observation and counting of vehicles under three categories, viz., heavy motor vehicles, light motor vehicles and two/three wheelers. As traffic densities on the roads are high, two skilled persons were deployed simultaneously at each station during each shift- one person on each of the two directions for counting the traffic. At the end of each hour, fresh counting and recording was undertaken. Total numbers of vehicles per hour under the three categories were determined.

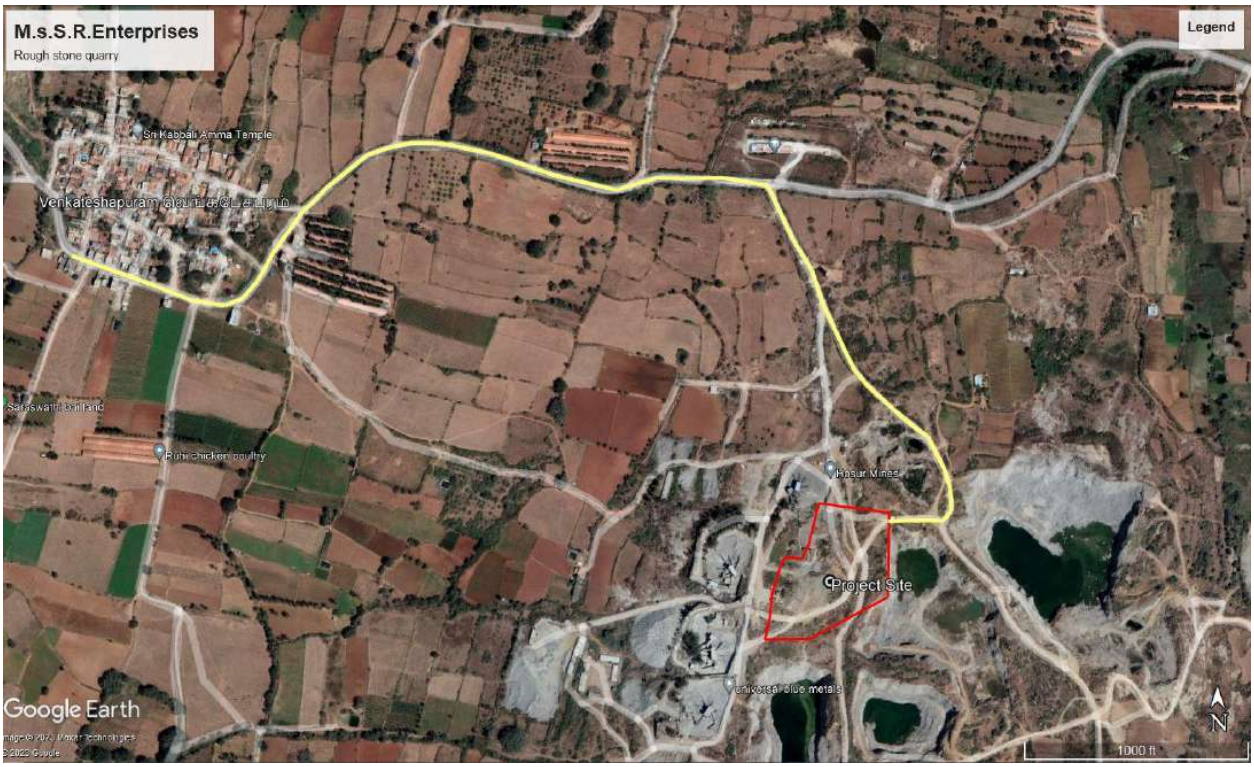


Figure 3.14: Site Connectivity

Table 3-22: No. of Vehicles per Day

S. No	Vehicles Distribution	Number of Vehicles Distribution/Day	Passenger Car Unit (PCU)	Total Number of Vehicle in PCU
		MDR-422	**-**	**MDR-422**
1	Cars	813	1	813
2	Buses	294	3	882
3	Trucks	325	3	975
4	Two wheelers	967	0.5	483.5
5	Three wheelers	409	1.5	613.5
Total		**2808**	**-**	**3767**

Table 3-23: Existing Traffic Scenario and LOS

Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
MDR-422	3767/24=157	413	0.38	**B**

Note: The existing level may be "Very Good" for MDR=422.

V/C	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good/ Average/ Fair
0.6-0.8	D	Poor
0.8-1.0	E	Very Poor

4 Anticipated Environmental Impacts & Mitigation Measures

This chapter describes the anticipated impacts on the environment and mitigation measures. The method of assessment of impacts including studies carried out, modeling techniques adopted to assess the impacts where pertinent should be elaborated in this chapter. It should give the details of the impacts on the baseline parameters, both during the construction and operational phases and suggests the mitigation measures to be implemented by the proponent.

4.1 INTRODUCTION

An environmental impact is defined as any change to the environment, whether adverse or beneficial, resulting from a facility's activities, products, or services. The anticipation of the possible & potential Environmental impact due to the proposed project is a key step in EIA. Based on the impacts assessed, appropriate mitigation measures should be adopted to maintain the environment with less or no damage.

Environmental Impacts can be group into Primary impacts & Secondary Impacts

Primary Impacts: These impacts are directly attributed by the project

Secondary Impacts: These are those which are induced by primary impacts and include the associated investments and changed patterns of the social and economic activities by the action.

Assessment of impacts is done for the following Environmental Parameters:

- Land Environment
- Water Environment
- Air Environment
- Noise Environment
- Biological Environment
- Socio Economic Environment

4.2 LAND ENVIRONMENT:

<table>
<tr><th>Aspect</th><th>Impact</th><th>Mitigation Measures</th></tr>
<tr>
<td>Mining of rough stone</td>
<td>The proposed 2.00.00 Ha mine located in Venkatesapuram Village having 4,06,265 m^3 of Rough Stone & 38,740 m^3 of Topsoil respectively. The quarry operation is proposed to carry out with conventional open cast mechanized mining with 5.0 meter vertical bench and bench width of 5.0 meter. At the end of 5 years, mining lease area will be converted into ultimate pit.

<table>
<tr><th colspan="5">ULTIMATE PIT DIMENSION</th></tr>
<tr><th>Section</th><th>Bench</th><th>L (m)</th><th>W (m)</th><th>D (m)</th></tr>
<tr><td>PIT</td><td>I</td><td>149.0</td><td>130.0</td><td>42.0</td></tr>
</table>

The main impact of open cast mining on land-use is land degradation. The land is bound to be excavated for mining of Rough Stone Quarry.

Impact on soil of the study area will be minimal as there are no wastewater generated, heavy metal infusion, stack emissions.</td>
<td>The proposed project site is not prone to any kind of soil erosion (Source: Bhuvan).

In addition, garland drainage of 1m x 1m will be provided to avoid storm water run- off.

It is proposed to plant 1000 Nos of native species (Neem, Magizham, Tamarind, Elandhai and Vilvam) along the roads, outer periphery of the mining area which enhances the binding property of the soil.

It is proposed to improve the affected land wherever possible for better land use, so as to support vegetation and creation of water reservoir in the ultimate pit after quarrying.

The entire lease area is covered 2.0m of Topsoil and estimated quantity of Topsoil is 38740m^3. Topsoil formation will be removed and transported to the needy users, only after</td>
</tr>
</table>

	Impact due to transformation of terrain characteristics over the large area results in soil degradation. Solid waste will be generated from the mining activity as there will be refuse also generation of domestic waste. If it is not properly managed, may cause odor and health problem to the workers.	obtaining permission and paying necessary seigniorage fees to the Government. The source of dust generation is majorly due to drilling, blasting, loading & unloading of the mined-out mineral, the impact will be mitigated by water sprinkling regularly once in 3hrs. The proposed mining activity is carried out in hilly terrain where The altitude of the area is Maximum 868m and Minimum 858m above MSL. After removal of minerals, undulating portion will be created. Excavated area or ultimate pit at the end of the mine period will be converted into water reservoir. Two tier tree belts will be planted along the safety distance. The 100% recovery is achieved by extracting the entire mineable reserve. Hence there will be no refuse generation due to the mining activity. Apart from that, a very meagre quantity of domestic waste will be generated in the project, which will be handed over to the local body on daily basis.

4.3 WATER ENVIRONMENT:

Aspect	Impact	Mitigation Measures
Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.	The mining in the area may cause ground water contamination due to intersection of the water table and mine runoff.	The water table will not be intersected during mining, as the ultimate depth is limited upto 42.0m (10m AGL + 32 BGL), whereas the ground water table is at 70m below the ground level. The municipal wastewater will be disposed into septic tanks of 5 cum and soak pit. No chemicals consisting of toxic elements will be used for carrying out mining activity.
	The ground water depletion may occur due to mining activity	The ground water table is at a depth of 70m BGL, the mining operation will not affect the aquifer. The ultimate pit at the end of the mining operation will be used for rainwater storage, the stored water will be used for green belt development and further the stored water will be used for domestic purposes (other than drinking) after proper treatment.
	Chemicals consisting of nitrate used for blasting may pollute the surface run off.	Further, the run-off water will be stored in sumps and after proper treatment; water will be

	Improper management of Domestic wastewater in the Mine lease may create unhygienic conditions in the site thereby causing health impacts to the labours.	used in the mining operation for dust suppression. Provision of urinals/Latrines along with septic tank followed by soak pit arrangement will be provided in the Mine Lease area for the proper management of wastewater

4.4 AIR ENVIRONMENT:

Aspect	Impact	Mitigation Measures
Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.	***Impacts during Operation Phase*** During mining operation, fugitive dust and other air pollutants like particulate matter (PM_{10} & $PM_{2.5}$) will be generated. The main source of pollutants arises due to drilling and blasting. 2 No of Tipper will be used for loading and unloading, 1 No of Excavator (1.20 m^3 bucket capacity (with rock breaker attachment) will be used for excavation of the mineral which contributes to the generation of fugitive dust. In addition, blasting will	***Mitigation Measures during Operation Phase*** It is proposed to plant 1000 Nos of native species (40% inside lease area & 60% outside lease area) along the haul roads, outer periphery within the lease area to prevent the impact of dust in consultation with Forest department for the plantation of trees (Neem, Magizham, Tamarind, Elandhai and Vilvam) in two tier to combat air pollution and with herbs (Nerium) in between the tree species. Planning transportation routes of the mined out

	be done using explosives leading to the generation of dust. <u>*Effect on Human*</u> • Adverse effect on human health of working labourers and neighbouring villagers like effect on breathing and respiratory system, damage to lung tissue, influenza or asthma. • Dust generation due to loading and unloading of mineral and due to transportation can also affect the workers as well as nearby villagers. <u>*Effect on Plants*</u> • Stomatal index may be minimized due to dust deposit on leaf.	mineral, so as to reach the nearest paved roads (an approach road) by shortest route connecting to MDR 422. Alternatively, gravelled road may be constructed between mine lease area and nearest paved road connectivity. The speed of trucks plying on the haul road will be limited to 20km/hr to avoid generation of dust. The trucks will be covered by tarpaulin. Overloading will be avoided. Personal Protective Equipments (PPEs) like eye goggles, dust mask, leather gloves, safety shoes & boots will be provided to the workers engaged at dust generation points like excavation and loading points. 0.5 KLD of water will be proposed for sprinkling on unpaved roads to avoid dust generation during transportation.

Air Quality Modeling:

The AERMOD is actually a modeling system with three separate components:

- AERMOD (AERMIC Dispersion Model),
- AERMAP (AERMOD Terrain Preprocessor)
- AERMET (AERMOD Meteorological Preprocessor)

4.4.1 *Source Characterization*

A detailed listing of all emission sources and their corresponding modelling input release parameters and emission rates is listed this report. A general description of how each source type was treated is presented below.

The emission Sources from the proposed operation are

Point Sources:

Point sources for mining operations are typically include dust collectors, hot water heaters, and emergency generator(s). Since at the present project the following sources are anticipated.

1. Hydraulic excavator –1.2 Cum Bucket Capacity (with Rock Breaker Attachment)
2. Jack Hammer 25.5 mm Dia
3. Tipper
4. Tractor Mounted - Compressor
5. Drilling and excavation with Accessories

Road Sources:

A road network was developed to depict the anticipated haul truck routes and truck discharge locations during the mine operations. The anticipated emissions from the road sources and corresponding anticipated impact during the monitoring period of December 2022 to February 2023 emissions were estimated. Emissions due to haul road and general plant traffic on the unpaved road network were

modelled as volume sources. The model volume source parameter for the haul roads initially utilized USEPA developed emission factors for hauling trucking. The haul road sources utilized source to source spacing of 6 meters along the simulated haul roads. The initial lateral dimension of the sources were set to 3 m were used as an input to replicated a 2 truck travel adjacent for a typical mining scenario. The parameters considered for the hauling operation include the following,

- size of haul trucks commonly used
- degree of dust control/compaction of permanent haul roads

Other fugitive particulate emission sources:

Other fugitive particulate emission sources that were modelled as volume sources include the following:

- Fugitive emissions from trucks unloading at the primary crusher were represented by a single volume source. The release height was set to 0 meters (dump pocket is at grade level).
- Fugitive emissions due to wind erosion is not considered as the mining area is predominately rocky surface with minimal wind erosion. If an wind erosion is anticipated to occur, it would be localized.
- Fugitive emissions from transfer points were represented by single volume sources. The release heights for these sources were set to the actual height of the truck transfer process.

Post Project Scenario

Emissions from operations will result from process equipment and mining operations. Process equipment was modeled at maximum capacity. Emissions from mining were based upon the mining rate and haul truck travel necessary to transport the stones and waste from the pit to the storage area.

Predicted maximum ground level concentrations considering micro meteorological data of March to May 2022 are superimposed on the maximum baseline concentrations obtained during the study period to estimate the post project scenario, which would prevail at

the post operational phase. The overall scenario with predicted concentrations over the maximum baseline concentrations is shown in the following table along with isopleths.

Table 4-1 Emission Factors for uncontrolled mining

Activity	Emission Factor		References	
Topsoil handling	Scraper	0.029 Kg TSPM/ average time between spray application	**USEPA (2008)**	Jose I. Huertas & Dumar A. Camacho & Maria E. Huertas, Standardized emissions inventory methodology for open-pit mining areas, Environmental Science Pollution Research, 2012.
	Bulldozing	15.048 kg PM10/ Hr excavation	**USEPA (2008)**	
	Loading	2.3237E-04 kg PM10/ average time between spray application	**USEPA (2006a)**	
	Haulage	0.69718 kg PM10/VKT	**USEPA (2006a) Cowherd (1988)**	
Rough stone mining	Wet drilling	8.00E-5 lbs PM10/ Ton produce	**EPA. August, 2004. Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing. In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, AP-42. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.**	
	Loading	1.00E-4 lbs PM10/ Ton produce		

4.5 NOISE ENVIRONMENT:

Aspect	Impact	Mitigation Measures
Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.	Usage of Equipments (Excavator, Tipper, Jack Hammer), Machinery and trucks used for transportation will generate noise. Noise from the machinery can cause hypertension, high stress level, hearing loss, sleep disturbance etc due to prolonged exposure. Number of vehicles will be increased due to the proposed mining activity hence vehicle may collate which may result in unwanted sound and can also cause impact on human health like breathing and respiratory system, damage to lung tissue, influenza or asthma.	• The machinery will be maintained in good running condition so that noise will be reduced to minimum possible level. • Awareness will be imparted to the workers once in six months about the permissible noise level and effect of maximum exposure to those levels. Adequate silencers will be provided in all the diesel engines of vehicles. • It will be ensured that all transportation vehicles carry a valid PUC Certificates. • Speed of trucks entering or leaving the mine will be limited to moderate speed (20km/hr) to prevent undue noise from empty vehicles. The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments. • It is proposed to plant 1000 Nos. of native species (Neem, Mandharai, Athi, Tamarind,

		Ashoka, Casuarinas and Villam) to reduce the impact of noise in the study area. The development of green belts around the periphery of the mine will be implemented to attenuate noise. • The trucks will be diverted on two roads viz. MDR 422 and a District Road to avoid traffic congestion. • Health check-up camps will be organized once in six month. • Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas. • Provision of quiet areas, where employees can get relief from workplace noise.

4.6 BIOLOGICAL ENVIRONMNENT:

Aspect	Impacts	Mitigation Measures
Site Clearance	Loss of habitat due to site clearance which may lead to ecological disturbance.	The proposed mining lease is already a dry land hence no site clearance is required. Only few shrubs and herbs like parthenium sp., prosopis

		juliflora were present.
Planting of trees	Development of afforestation in the mine lease area will have a positive impact as the land was initially a barren.	10 m safety distance will be provided all along the boundary of the mine lease area and safety. Around 0.47.0 Ha of land is utilized for greenbelt development (1000 Nos – 5 years). This will attract avifauna thus enhancing the existing ecological environment.

4.7 SOCIO ECONOMIC ENVIRONMNENT:

Aspect	Impact	Mitigation Measures
Proposed implementation of Mining activity	Land acquisition for the implementation of the project may result in loss of assets, which in return will make the PAP to shift, losing their normal routine and livelihood	The proposed project is a Government Poramboke land and the land is vacant where there are no human settlement within 300m radius. Hence the project does not involve Rehabilitation and resettlement
Drilling, Blasting, Loading and Transportation of the mined out mineral	The mining activities may cause dust emission, noise pollution thereby causing disturbance to the local habitat	No human activity is envisaged near the project site. The nearest human settlement is observed in Venkatesapuram village which is 0.82 km from site

Grazing and Rearing activities in the nearby villages	The Grazing and rearing of local animals like Sheep, Goat and cows is observed in the nearby villages, which may be affected due to the project as the movement of the vehicles may affect/injure the animals	It is proposed to use gravelled road and nearest paved road and preferred not to use unpaved roads. In addition to that, the speed of trucks will be limited to 20km/hr to avoid any accidents.
Employment opportunity	The project will improve the livelihood of the local people	After the development of the proposed mine, it will improve the livelihood of local people and also provide the direct and indirect employment opportunities. The rough stone for the infrastructural development in the area will be made available from the local markets at reasonably lower price.
Corporate Environmental Responsibility	The proposed project will help in natural resource augmentation & Community resource development.	As a part of CER i.e., 5.0 Lakhs will be allocated. Government High School, Venkatesapuram Provision of Renovation of Auditorium, Renovation of Gents Toilet, Sports equipment, Environmental books for library (in Tamil language), Greenbelt facilities and Basic amenities such as safe drinking water, furniture.

4.8 OTHER IMPACTS:

S. No	Aspect	Impact	Mitigation measure
1.	Risk due to the proposed mining	Accidents may occur in the mine area	Proper PPE kit (Safety jacket, Helmet, Safety Shoes, Gloves) etc will be provided to each and every employee in the mine lease concerning the safety of each labour.
2.	Blasting	Injury to the labours due to the blasting activity	Alarm system in the form of Siren will be engaged in the project site to caution the blasting activity. In addition to that, the blasting activity will be scheduled at particular time – 5 P.M to 6 P.M (or whenever required) so that the employees will be aware of the activity. Smoking will be banned in the site and sign boards will be displayed in various places at site.
3.	Screening of Labours	Labours will be checked for health condition before employing them in mining activity	All the labours will be checked and screened for health before employing them. After employing them, periodical medical check-ups will be held once in every six months.

5 Analysis Of Alternatives

5.1 GENERAL

Analysis of alternative is a significant aspect in planning and designing any project. Cost benefit analysis should be worked out along with other parameters while choosing an alternative in such a way that the production is maximum and the mining operation is environment friendly and cost effective. The mine plan and mine closure plan has been approved by the Deputy Director, Department of Mining and Geology, Krishnagiri District prior to submission of the Form-1 and PFR.

ToR issued by the SEIAA-TN vide Letter No. SEIAA-TN/F. No. 9499/ ToR-1309/2022 Dated: 07.12.2022. The study for alternative analysis involves in-depth examination of site and technology.

5.1.1 *Analysis for Alternative Sites and Mining Technology*

5.1.1.1 Alternative Site

The proposed project is the mining of Rough Stone Quarry and is proposed after prospecting the area. In other words, these can be implemented in the mineral available zone. Since the mining block has been allotted in principal by the State Government, there is no case for studying and exploring any other site as an alternative.

5.1.1.2 Alternative Technology

The open cast mining could be manual/ mechanized depending upon the geological and topographical setup of the mineral (ROM) to be won and the daily/annual targeted production.

Table 5-1: Alternative for Technology and other Parameters

S. No.	Particular	Alternative Option 1	Alternative Option 2	Remarks
1.	Technology	Opencast semi mechanized mining	Opencast mechanized mining	Opencast mechanized Involving drilling and blasting are preferred. **Benefits:** Material is hard so to make it

2.	Employment	Local employment.	Outsource employment	Local employment is preferred. **Benefits:** Provides employment to local people along with financial benefits No residential building/ housing is required.
3.	Labour transportation	Public transport	Private transport	Local labours will be deployed from Venkatesapuram village so they will either reach mine site by bicycle or by foot. **Benefits:** Cost of transportation of labors will be negligible
4.	Material transportation	Public transport	Private transport	Material will be transported through trucks/trolleys on the contract basis **Benefits:** It will give indirect employment.
5.	Water	Tanker supplier	Ground water/	Tanker supply will be preferred. Water will be sourced from Venkatesapuram village which is 0.87 km from site.

6 Environmental Monitoring Program

6.1 GENERAL:

This chapter covers the planned environmental monitoring program. It also includes the technical aspects of monitoring the effectiveness of mitigation measures.

Monitoring is important to measure the efficiency of control measures. Post project monitoring of environmental parameters is of key importance to assess the status of environment. The monitoring program will serve as an indicator for identifying environmental degradation due to operation of the project and help in selection of appropriate mitigation measures to safeguard the environment.

Regular monitoring is as important as control of pollution since the efficacy of control measures can only be determined by monitoring. The project proponent has awarded **M/s. Ecotech Labs Pvt Ltd** for carrying out the post project environmental monitoring (PPM) and timely compliance report submission to various regulatory authorities.

Therefore, a regular monitoring programme of the environmental parameters is essential to take into account the changes in the environmental quality. The objectives of monitoring are to:-

- Verify effectiveness of planning decisions;
- Measure effectiveness of operational procedures;
- Confirm statutory and corporate compliance; and
- Identify unexpected changes.

Table 6-1: Environmental Monitoring Programme

Parameters	Sampling	Frequency	Location
Air environment – Pollutants PM 10 PM 2.5 SO_2	5 locations	24 hourly twice a week 4 hourly. Twice a week, One non monsoon season 8 hourly, twice a week 24 hourly, twice a week	1. Project site 2. Athimugam Masjid Al Sunnatul Jamath 3. Sri Pattalamma Devi,Temple, Payarkuttalai

NO_x			4. Govt.Hr Sec School, Bukkasagaram 5. Sivaraman green garden
Noise	5 locations	24 hourly Once in 5 locations	1. Project site 2. Athimugam Masjid Al Sunnatul Jamath 3. Sri PattalammaDevi,Temple, Payarkuttalai 4. Govt.Hr Sec School, Bukkasagaram 5. Sivaraman green garden
Water (Ground water) • pH • Temperature • Turbidity • Magnesium Hardness • Total Alkalinity • Chloride • Sulphate • Fluoride • Nitrate • Sodium • Potassium • Salinity • Total nitrogen • Total Coliforms • Fecal Coliforms	5 locations	Once in 5 locations	1. Project site 2. Athimugam Masjid Al Sunnatul Jamath 3. Sri PattalammaDevi,Temple, Payarkuttalai 4. Govt.Hr Sec School, Bukkasagaram 5. Sivaraman green garden

Water (surface water) • pH • Temperature • Turbidity • Magnesium Hardness • Total Alkalinity • Chloride • Sulphate • Fluoride • Nitrate • Sodium • Potassium • Salinity • Total nitrogen • Total Coliforms • Fecal Coliforms	Sample from nearby lakes/river	One time Sampling	1. Bukkasagaram Lake – 3.54 km, S 2. Muthali Lake – 4.57 km, NW
Soil (Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	5 locations	Once in 5 locations	1. Project site 2. Athimugam Masjid Al Sunnatul Jamath 3. Sri PattalammaDevi,Temple, Payarkuttalai 4. Govt.Hr Sec School, Bukkasagaram 5. Sivaraman green garden
Ecology and biodiversity Study	Study area covering 5 km radius	One time Sampling	

Socio- Economic study (Population, Literacy Level, employment, Infrastructure like school, hospitals & commercial establishments)	Villages around 5 km radius	One time Sampling	

Table 6-2: Monitoring Schedule during Mining

S. No.	Attributes	Parameters	Frequency	Location
1.	Ambient Air Quality at Mine Site & Fugitive Dust Sampling	PM 10 PM 2.5 SO_2 NO_X	Once in a Month	Project Site
2.	Ground water Quality	Drinking Water Parameters, As per IS - 10500: 2012	Half yearly	Project Site
3.	Surface Water Quality	Class will be assessed as per the CPCB Guidelines	Half yearly	Project Site
4.	Soil Quality	(Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	Half yearly	Project Site
5.	Noise Level Monitoring	Noise level in dB(A) Quarterly/half yearly	Half yearly	Project Site

7 Additional Studies

7.1 GENERAL

This chapter covers the details of the additional studies viz. Risk assessment, Disaster Management, Public Hearing, Rehabilitation and Resettlement.

7.1.1 *Public Hearing:*

As the proposed mining project falls under 1(a), Category B1 – Cluster Mining (includes

Existing Quarries - Nil

Abandoned / Old quarries:

1. M/s. R.A.Blue Metals – 4.00.0 Ha
2. Thiru.J.Shanmugam – 2.00.00 Ha
3. Thiru.P.Selvaraju – 2.00.00 Ha

Proposed Quarries:–

1. S.R.Enterprises – 2.00.0 Ha
2. Thiru.B. Elavarasan – 4.20.0 Ha
3. Thiru.A.Brian Balachander – 2.50.00 Ha

The Total extent of the Existing / Proposed quarries are 17.70.0 Ha.

Hence under 7(III) of EIA notification 2006 and its subsequent amendments, the project involves the Public Consultation and the same will be conducted under SPCB (TN) in Krishnagiri District. The proceedings of the same will be incorporated in the Final EIA Report.

7.1.2 *Risk assessment:*

For mining projects to be successful, it should meet not only the production requirements, but also maintain the highest safety standards for all the workers. The industry has to identify the hazards, assess the associated risks and bring the risks to tolerable level regularly. Mining has considerable safety risk to miners. Unsafe conditions and practices in mines lead to a number of accidents and causes loss and injury to human lives, damage property, interrupt production etc. Risk assessment is a systematic method of identifying and analyzing the hazards associated with an activity and establishing a level of risk. The hazards cannot be completely eliminated, and thus there is a need to define and estimate an accident risk level possible to be presented either in quantitative or qualitative way.

7.1.3 *Identification of Hazard*

7.1.3.1 Blasting Pattern:

The quarrying operation will be carried out by Opencast Semi Mechanized method in conjunction with conventional method of mining using Jack Hammer drilling and blasting for shattering effect and loosen the Rough Stone.

7.1.3.2 Drilling and Blasting:

Drilling and Blasting parameters are as follows:

Diameter of Hole	32-36mm
Spacing between holes	60 cms
Depth	1 to 1.5 m
Pattern of hole	Zigzag
Inclination of holes	70° from horizontal
Use of delay detonators	25 milli-second delays
Detonating fuse	"Detonating" Cord

a. Types of explosives to be used:

Small dia of 25mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Rough Stone. No deep hole drilling or Primary blasting is proposed.

b. Measures proposed to minimize ground vibration due to Blasting:

The quarry is situated more than 0.87 km from the nearby villages. Controlled blasting measures will be adopted for minimizing ground vibration and fly of rock. Shallow depths jackhammer drilling & blasting is proposed to be carried out with minimum use of explosive mainly to give the shattering effect in rough stone for easy excavation and to control fly of rocks.

Diameter of Holes = 32-36mm

Powder factor = 6 to 7 Tons/Kg of explosives

Depth = 1 to 1.5 m

Charge/Hole = D.Cord with water or 70gms of gun powder or Gelatine.

Blasted at day time = 5 to 6 PM

Storage and safety measures to be taken while blasting: The proponent will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory Foreman/Permit Mines Manager.

Heavy Machineries: The following heavy machineries will be used in the proposed area:

- For Mining – Excavator of 1.2 Cum Bucket capacity (with Rock Breaker attachment), Jack Hammers (25.5 mm Dia) of 4 Nos.
- Loading Equipment – Excavator of 1.2 Cum Bucket Capacity (with Bucket attachment)
- Transportation (includes within the mine and mine to destination) – Tipper 2 Nos. of 10 M.T capacity (from quarry to needy peoples and local crushers)

a. Risk:

Most of the accidents during transport of mined out mineral using other heavy vehicles are often attributed to mechanical failures and human errors.

b. Mitigation measures to minimize the risk

- At the time of loading no person will be allowed within the swing radius of the excavation.
- The dumpers/ trucks will stand near the loading equipment and fully braked when the muck is filled in it.
- The truck would be brought to a lower level so that the loading operation suits to the ergonomic condition of the workers.
- The workers will be provided with helmets, gloves and safety boots; loading and unloading operations will be carried out only during daylight.
- All the mining machineries will be regularly maintained and checked such as brakes, lights and horns to keep in the efficient working order.

7.1.4 *General Precautionary measures for the Risk involved in the proposed mine:*

- In order to take care of above hazard/disaster, the following control measures will be adopted:
- All safety precautions and provisions of Mine Act,1952, Metalliferous Mines Regulation, 1961 and Mines Rules, 1955 will be strictly followed during all mining operations;
- Entry of unauthorized persons will be prohibited;
- Firefighting and first-aid provisions in the ECC and mining area;
- Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the workers (16 Nos.) and regular inspection for their use;
- In case of eventuality, first aid will be given by the senior safety office in the mine area initially to the injured person. The safety officer will give notice of accident as per Rule-23 of Mines Act-1952;
- The safety officer (common for 3 mines within 500m radius) will be responsible for coordination between management district authorities/DGMS etc. Regarding general safety as per Rule-181 of MMR 1961, "No person shall negligently or will fully do anything likely to endanger life or limb in the mine, or negligible or will fully omit to do anything necessary for the safety of the mine or of the persons employed there in". The workers will be provided with protective foot wear and safety helmets;
- Cleaning of mine faces will be regularly done;
- Handling of explosives, charging and blasting will be carried out by highly skilled labors only;
- Regular maintenance and testing of all mining equipment as per manufacturer's guidelines;
- Suppression of dust by sprinkling water on the haulage roads;

7.1.5 *Safety Team:*

The effective implementation of compliance of Safety Rules/ Statutory Provisions will be ensured. The safety officer will be engaged, meeting the requirement of Mines Act and their duties and responsibilities. The safety officer will be responsible for identification of the hazardous conditions and unsafe acts of workers and advice on corrective actions, conduct safety audit, organize training programs and provide professional expert advice on various

issues related to occupational safety and health. Organizing safety training will be conducted to employees and contractor labors periodically.

7.1.6 *Emergency Control Centre*

The emergency control center will be provided to handle the emergency. The site main controller, key personnel and the senior officers of the fire and police services will attend it. The center will be equipped to receive and transmit information and directions from and to the incident controller and other areas of the works, as well as outside. The emergency control center will be sited in an area of minimum risk. This common Emergency control center will be used for the mines around the 500m radius

7.2 DISASTER MANAGEMENT

The possible risks in the case of stone along with associated minor minerals mining projects are fly rock, vibration failure of pit, slope and waste dump, accidents due to transportation. Mining and allied activities are associated with several potential hazards to both the employees and the public at large. Safety of the mine and the employees is taken care of by the mining rules & regulations, which are well defined with laid down procedure for safety, which when scrupulously followed, safety is ensured not only to manpower but also to machines & working environment.

7.2.1 Emergency Management Plan For Proposed Mines On Site- Offsite Emergency Preparedness Plan:

The emergency plan delineates the procedures for dealing with accidents or unexpected events and natural calamities arising from mining activity. An experience of any accidents that have occurred in other manufacturing/mining projects is considered to prepare this plan. This Emergency plan should be periodically reviewed and modified. It should also be changed based on the observations of emergency mock drills and experience of handling actual emergencies.

Major objectives of this onsite – offsite emergency plan are:

- To take necessary proactive and preventive actions to avoid the emergency.

The main aim of any emergency plan should be to prevent emergency situations.

To train the manpower to handle the emergencies of the following nature:

• Onsite (Within ML boundary)

• Offsite (Outside ML boundary)

7.2.1 *Onsite off-site emergency Plan:*

1- Emergency on account of:

- Fire
- Explosion
- Major accidents involving man-made collapse of the mining edges.
- Snake bites, attack by honey bees or attack by wild animals.

2- Disaster due to natural calamities like:

- Flood/ heavy rains which can involve natural landslides.
- Earth quake
- Cyclone
- Lightening

7.2.2 *Emergency Plan:*

- The mining operations should be immediately stopped in case of any emergency. A siren will be sounded during emergency time.
- An emergency assembly point will be created and all the workers will guide visitors or contractors to approach assembly point.
- Emergency vehicle (Ambulance) will be available in the nearby place, in proximity to the three mines and will rush to the emergency control centre at the blowing of emergency siren. The driver of emergency vehicle will follow the instructions of Incident Controller/Site Main Controller.
- Workers will be trained for the precautions to be taken during natural disasters like heavy rain, floods, earthquake and cyclone.
- All escape routes from mines to the assembly point or any other safe location will be made and the escape plan will be displayed in many places in the mine area

7.2.3 *Emergency Control:*

- Shut down of mining operations: Raising the alarm or siren followed by immediate safe shut down of the power supply, and isolation of affected areas.
- Treatment of injured: First aid and hospitalization of injured persons
- Protection of environment and property: During mitigation, efforts will be made to prevent impacts on environment and property to the extent possible.
- Preserving all evidences and records: This will be done to enable a thorough investigation of the true causes of the emergency.
- Ensuring safety of personnel prior to restarting of operations: Efforts required will be made to ensure that work environment is safe prior to restarting the work.

7.3 NATURAL RESOURCE CONSERVATION

There are no natural resources within the premises. The conservation strategies for energy will be followed in the proposed mine lease area. The pollutants of the mine will be minimized by adopting appropriate mitigation measures as mentioned Chapter 5 to prevent the effects on nearest water bodies. No surface runoff from the project site will be let into the nearest water bodies.

7.4 RESETTLEMENT AND REHABILITATION:

The proposed Mine lease area is Government Poramboke land. There is no displacement of the population within the project area and adjacent nearby area and hence Rehabilitation & Resettlement is not applicable.

8 Project Benefits

8.1 GENERAL

This chapter covers the benefits accruing to the locality, neighborhood, region and nation as a whole. It brings out the details of benefits by way of improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits.

8.1.1 *Physical Benefits*

The opening of the proposed project will enhance the following physical infrastructure facilities in the adjoining areas:

Market: Generating useful economical resource for construction. Due to demand supply chain, excavated mineral (Rough stone) will sold in the market in the affordable price.

Infrastructure: The excavated rough stone will be used for ***Laying Roads, Building & Construction Projects, Bridges*.**

Enhancement of Green Cover & Green Belt Development: As a part of reclamation plan, native tree species will be planted along the safety boundary of the mine lease area. A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant 500 numbers of native species along with some fruit bearing and medicinal trees during the mining plan period.

8.2 SOCIAL BENEFITS

The mining in the area will create rural employment. During site visit, it has been observed that the economic conditions of the villages in the study area is quite normal. After the development of the proposed mine, it will improve the livelihood of local people and also provide the indirect employment opportunities. The rough stone for the infrastructural development in the area will be made available from the local markets at reasonably lower price.

As a part of CER, i.e., 5 Lakhs will be allocated. The detailed agenda, which is to be executed has been framed. The salient features of the programmes are as follows:

Developing Sports facilities and providing Smart board, Library, Environmental books for library (in Tamil language), Greenbelt facilities Basic amenities such as safe drinking water, Hygienic Toilet facilities & Furniture to Government High School, Venkatesapuram.

8.3 PROJECT COST / INVESTMENT DETAILS

1	**D. Fixed Asset Cost**: • Land Cost • Labour Shed • Sanitary Facility • Refilling/Fencing cost Total=	: : : :	Rs. 3,23,00,000/- (Leased tender amount for Government Poramboke Land) Rs. 1,40,000/- Rs. 70,000/- Rs. 80,000/- **Rs.3,25,90,000/-**
2	**E. Operational Cost:** **Machinery cost**	:	**Rs.30,00,000/-**
3	**F. EMP Cost:** Display board in site; Monitoring-Air, Water, Noise; Dust Supression - Water sprinkling by own water tankers; Vehicle Tyres Wash; Green Belt Development; Road Development & Management; Occupational Health And Safety; Solid Waste Management; Strom Water; Renewable Energy, CCTV Installation, Salary for mines manager and blaster	:	**Rs. 81,41,002/-**
	Total Project Cost(A+B+C)	:	**Rs. 4,37,31,002/-**

9 Environmental Management Plan

9.1 INTRODUCTION

This chapter comprehensively presents the Environmental Management Plan (EMP), which includes the administrative and technical setup, summary matrix of EMP, the cost involved to implement the EMP, during various Mining activities and provisions made towards the same in the cost estimates of project. This chapter describes the proposed monitoring scheme as well as inter-organizational arrangements for effective implementation of the mitigation measures.

9.2 SUBSIDENCE

Mining will be carried out by opencast mechanized mining method with drilling & blasting as per mining plan approved by Department of Mining and Geology, Krishnagiri. Subsidence/slope failures are not envisaged because there are no loose strata overlying the deposit (mineral to be excavated). The bench height will be average 5m. The individual bench slope has been proposed to be kept at 60^0 from horizontal. Moreover, all safety standards/ safeguards will be implemented as per guidelines prescribed by Director General of Mines Safety.

9.3 MINE DRAINAGE

9.3.1 *Storm water Management*

The following measures will be taken with respect to the prevailing site conditions.

- Storm water drains with silt traps of size 1m x 1m will be suitably constructed all along the periphery of the pit area to collect the run-off from the mine area and divert into the pit.
- All measures will be taken not to disturb the existing drainage pattern adjacent to the mine lease area.
- The storm water collected from the mine area will be utilized for dust suppression on haul roads, plantation within the premises, etc.,

9.3.2 *Drainage*

Local workers will be deployed for the project. But, urinals and Latrines will be provided and the same will be connected to septic tank followed by soak pit arrangement. No domestic waste will be deposited into the nearby area. Regular checking will be carried out to find any

blockage due to silting or accumulation of loose materials. The drains will also be checked for any damage in lining / stone pitching, etc.

9.3.3 *Administrative and Technical Setup*

The Environment Management Plan (EMP) will consist of all mitigation measures for each component of the environment due to the activities increased during mining operation to minimize adverse environmental impacts resulting from the activities of the project.

To carry out the above activities, M/s. S.R. Enterprises will work in association with M/s. Ecotech Labs Pvt Ltd.

Table 9-1: Impacts and mitigation measures

S. No	Impacts on Environment	Activity /Aspect	Anticipated impacts	Mitigation measures
1.	Air	Fugitive Emission	During mining operation, fugitive dust and other air pollutants like particulate matter (PM10 & PM 2.5) will be generated.	Planting of trees along the safety distance of the Mine Lease Area Water will be sprinkled in the site as dust suppression measure.
2.	Water	Wastewater Generation	Improper management of Domestic wastewater in the Mine lease may create unhygienic conditions in the site thereby causing health impacts to the labors	Provision of urinals/Latrines along with septic tank followed by soak pit arrangement will be provided in the Mine Lease area for the proper management of wastewater.
3.	Noise	Mining activities like drilling, blasting, loading and transportation	Noise from the machinery can cause hypertension, high stress level, hearing loss, sleep disturbance etc due to prolonged exposure. Apart from Mining activities like drilling, blasting may generate noise	Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas.
4.	Land	Improper management of Storm water Runoff	Storm water Runoff may result in Soil Erosion	Garland drainage of 1m x 1m will be provided to avoid storm water run- off.
5.	Social Responsibility	Mining workers	Unhygienic site sanitation facilities may cause health damage to workers.	The objective is to ensure health and safety of the workers with effective provisions for the basic facilities of sanitation, drinking water, safety of equipments or machinery etc. The following will be done in the site

				✓ By complying with the safety procedures, norms and guidelines (as applicable) as outlined in the National Building Code of India, Bureau of Indian Standards. ✓ Provide adequate number of decentralized latrines and urinals ✓ Providing Septic tank along with Soak pit arrangement ✓ Providing First Aid room, conducting frequent health checkups to labor and conducting free medical camps ✓ Providing safety helmet, Gloves, Jacket & Boots ✓ Providing measures to prevent fires. Firefighting extinguishers and buckets of sand will be provided in the construction site
6.	Building materials resource conservation	Building Material consumption	Use of farfetched construction materials than the locally available construction materials may lead to over exploitation of natural resources & increase in carbon footprint.	• Use of locally available construction materials.

Table 9-2: Budgetary Allocation for EMP during Mining

Year	Description	Cost (Rs)
5 Years	Display board in site; Monitoring-Air, Water, Noise; Dust Supression -Water sprinkling by own water tankers; Vehicle Tyres Wash; Green Belt Development; Road Development & Management; Occupational Health And Safety; Solid Waste Management; Strom Water; Renewable Energy, CCTV Installation, Salary for mines manager and blaster	81,41,002

10 Summary & Conclusion

This chapter summarizes the overall justification for implementation of the project and explains how the potential impacts are mitigated.

10.1 INTRODUCTION

M/s. S.R. Enterprises site is a cluster of six mining projects. The individual mine lease area is 2.00.00Ha of Rough Stone Quarry located at S.F.Nos. 86 (Part-3) of Venkatesapuram Village, Shoolagiri Taluk in Krishnagiri District.

10.2 PROJECT OVERVIEW

Table 10-1: Project Overview

S. No.	Description	Details
1	Project Name	Rough Stone Quarry-2.00.00 ha
2	Proponent	M/s. S.R. Enterprises
3	Mining Lease Area Extent	2.00.00 Ha
4	Location	S.F.Nos. 86 (Part-3) Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District.
5	Latitude	12° 45' 19.41"N to 12° 45' 14.07"N
6	Longitude	77° 56' 40.17"E to 77° 56' 34.69"E
7	Topography	Hilly terrain
8	Site Elevation above MSL	The altitude of the area is Maximum 868m and Minimum 858m above MSL.
9	Topo sheet No.	57- H/14
10	Minerals of Mine	Rough Stone Quarry
11	Proposed production of Mine	4,06,265 m^3 of Rough Stone and 38,740m^3 of Topsoil
12	Ultimate depth of Mining	42 m (10m AGL + 32m BGL)
13	Method of Mining	Open cast, mechanized mining
14	Water demand	2.0 KLD
15	Source of water	Water will be supplied through tankers supply

16	Manpower	18 Nos.
17	Mining Lease	Precise Area Communication Letter received from District Collector, Krishnagiri vide letter Rc.No.546/2022 Mines dated 04.05.2022
18	Mining Plan Approval	Mining Plan was approved by the Deputy Director, Dept. of Geology & Mining, Krishnagiri vide letter Rc.No.546/2022 Mines dated 29.06.2022
19	Production details	Geological resources: 691920m^3 Proposed year wise recoverable reserves: 406265m^3 of Rough Stone
20	Boundary Fencing	10 m barrier all along the boundary Fencing will be provided.
21	Disposal of overburden	The entire lease area covers 2.0m of Topsoil and estimated quantity of Topsoil is 38740m^3. Topsoil formation will be removed and transported to the needy users, only after obtaining permission and paying necessary seigniorage fees to the Government.
22	Ground water	The quarry operation is proposed up to a depth of 42m (10m AGL + 32m BGL). The water table is below 70m from ground level which is observed from the nearby open wells and bore wells. Hence the ground water will not be affected in any manner due to the quarrying operation during the entire lease period.
23	Habitations within 300m radius of the Project Site	There is no Habitation within 300m radius of the project site.
24	Drinking water	Water will be supplied through tankers from Venkatesapuram village which is 0.82 Km – West of the proposed project site.

10.3 JUSTIFICATION OF THE PROPOSED PROJECT

The said project plays a significant role in the domestic as well as infrastructural market. To achieve a huge infrastructure being envisaged by Government of India, particularly in road and housing sector, there is a need for basic building materials. The rough stone form the primary building material.

Rough stone is one of the most valuable natural building materials. Aggregates are mostly used for building roads and footpaths Aggregates – stone used for its strong physical properties – crushed and sorted into various sizes for use in concrete, coated with bitumen to make asphalt or used 'dry' as bulk fill in construction. Mostly used in roads, concrete and building products. Aggregates represent about 98% of quarry output, most of which is used in road construction, maintenance and repair. Much of this goes to the production of asphalt; the remainder is used 'dry' without the addition of other materials to provide a sturdy base for roads.

Since Krishnagiri, a city known for its small-scale industries and also the soil in the area near project site is not very fertile making it unsuitable for carrying out agricultural activities. The topography near the lease area is barren dry lands showing only less chance for crop growth and development of vegetation. In addition to that, geological resources of rough stone is abundant in the lease area which is evident from the mine activities carried out in the nearby sites.

Table 10-2: Anticipate Impacts & Appropriate Mitigation Measures

S. No.	Potential Impact	Mitigation Measure
1	The main impact in the air environment is dust emission during various mining activities such drilling, blasting, excavation, loading and transportation. The dust emission may affect the quality of ambient air in the and around the mine area. The increased emission may cause respiratory & Cardiovascular problems in human health	Proper mitigation measures like water sprinkling on haul roads will be adopted to control dust emissions. To control the emissions regular preventive maintenance of equipments will be carried out on contractual basis. Plantation will be carried out along approach roads & mine premises.

2	Waste water will be generated due to mining activity and from other domestic activities. These may contaminate the ground water leading to ground water. The mining activity may affect the ground water table	No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of over burden from mine site. The wastewater generated from the domestic activity will be disposed off safely through the proposed septic tank. Mining will not intersect ground water table. Hence the water table will not be impacted due to the proposed project
3	Noise will be generated in the mine area during various mining activities such as blasting, drilling, excavation. During transportation of the mined out mineral, there may be noise generation due to the movement of vehicles. This may impact the health condition of the workers by creating headache	Periodical monitoring of noise will be done. No other equipments except the transportation vehicles and Excavator (as & when required) for loading will be allowed at site. Noise generated by these equipments shall be intermittent and does not cause much adverse impact. Plantation will be carried out along approach roads. The plantation minimizes propagation of noise and also arrest dust.
4	Solid waste will be generated from the mining activity as there will be refuse after 95% recovery and also generation of domestic waste	The 100% recovery is achieved by extracting the entire mineable reserve. Hence there will be no refuse generation due to the mining activity. Apart from that, a very meagre quantity of domestic waste will be generated in the project,

		which will be handed over to the local body on daily basis.
5	During mining activities, there are chances of workers getting health issues or may be prone to accidents	Dust masks will be provided as additional personal protection equipment to the workers working in the dust prone area. Periodical trainings will be conducted to create awareness about the occupational health hazards due to activities like blasting, drilling, excavation Workers health related problem if any, will be properly addressed.

11 Disclosure of Consultant

11.1 INTRODUCTION

This chapter presents the details of the environmental consultants engaged, their background and the brief description of the key personnel involved in the project. Specific studies on the mining project have been carried out by engaging engineers/experts of Ecotech Labs Pvt. Ltd, Chennai. Ecotech Labs Pvt. Ltd (ETL), Chennai is NABET accredited consultancy organization. ETL is equipped with in-house, spacious laboratory, accredited by NABL (National Accreditation Board for Testing & Calibration Laboratories), Department of Science & Technology, Government of India and MoEF & CC.

11.2 ECO TECH LABS PVT. LTD – ENVIRONMENT CONSULTANT

Eco Tech Labs Pvt. Ltd is a multi-disciplinary testing and research laboratory in India. Eco Tech labs provides high quality services in environmental consultancy, engineering solution, chemical and microbiological laboratory analysis of food, water and environment (Air, Water, Soil) with highest accuracy.

The Quality policy

•We at Eco Tech Labs Pvt. Ltd. engaged in providing Environmental consulting services and we are committed to strengthen our capabilities in all areas of our operations in line with customer requirements &expectations, applicable legal requirements & stakeholders expectations.

•We are committed to establish and maintain Quality Management System (QMS) for continual improvement in processes and Services

•We are committed to provide customized solutions in realistic, time bound and cost effective to achieve highest degree of customer satisfaction and Environmental improvement.

•We shall establish, maintain & periodically review our documented management systems, objectives and performance in consultation with our employees and prevailing best practices.

• Effective communication of organization's policy and objectives to employees and seeking feedbacks from all our employees and concerned stakeholders for continual improvement.

Declaration by Experts contributing to the EIA of Rough Stone Quarry- 2.00.00 Ha by M/s.S.R. Enterprises at S.F.No. 86 (Part-3), Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu State

I, hereby, certify that I was a part of the EIA team in the following capacity that developed the above EIA.

EIA Coordinator: Dr. A. Dhamodharan

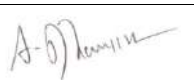
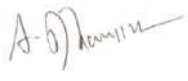
Dr. A. DHAMODHARAN
(NABET APPROVED EIA COORDINATOR)
NABET/EIA/2124/SA 0147
Environmental Consultant
Eco Tech Labs Pvt. Ltd
Plot No.48A, 2nd Main Road, Ram Nagar South Extn.
Pallikaranai, Chennai - 600 100.

Signature:

Period of involvement: 01.12.2021 to Till now

Contact information: M/s. Ecotech Labs Pvt Ltd.,
No. 48, 2nd Main road, Ram Nagar South Extension,
Pallikaranai

S. No.	Functional areas	Name of the experts	Involvement (period and task)	Signature and date
1	AP	Mrs. K. Vijayalakshmi	1. Selection of Baseline Monitoring stations based on the wind direction 2. Interpretation of Baseline data by comparing it with standards prescribed by CPCB against the type of area 3. Identification of sources of air pollution and suggesting mitigation measures to minimize impact ***Period: December 2021 – Till now***	

2	WP	Dr. A. Dhamodharan	1. Selection of baseline Monitoring Locations for Ground water analysis and also identifying nearest surface water to be studied. 2. Interpretation of baseline data collected 3. Identification of impacts based on the baseline study conducted and also to the ground water and nearby surface water due to the proposed project 4. Preparation of suitable and appropriate mitigation plan. ***Period: December 2021 – Till now***	
3	SHW	Dr. A. Dhamodharan	1. Identification of nature of solid waste generated 2. Categorization of the generated waste and estimating the quantity of waste to be generated based on the per capita basis. Identification of impacts of SHW on Environment 3. Suggesting suitable mitigation measures by recommending appropriate disposal method for each category of waste generated 4. Top soil and refuse management ***Period: December 2021 – Till now***	
4	SE	Mr. S. Pandian	1. Primary data collection through the census questionnaire 2. Obtaining Secondary data from authenticated sources and incorporating the same in EIA report. 3. Impact assessment & proposing suitable mitigation plan 4. CSR budget allocation by discussing with the local body and allotting the same for need based activity. ***Period: December 2021 – Till now*** ****Involves Public Hearing***	
5	EB	Dr. A. Dhamodharan	1. Primary data collection through field survey and sheet observation for ecology and biodiversity 2. Secondary Collection through various authenticated sources	

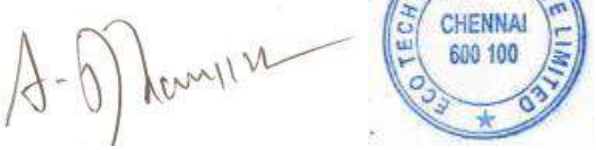
			3. Prediction of anticipated impacts and suggesting appropriate mitigation measures. ***Period: December 2021 – Till now***	
6	HG	Dr. T. P. Natesan	1. Study of existing surface drainage arrangements in the core and buffer zone, impact due to mining on these drainage courses and suggestion of mitigative measures 2. Determination of groundwater use pattern, development of rainwater harvesting program. Storm water management through garland drainage system. ***Period: December 2021 – Till now***	
7	GEO	Dr. T. P. Natesan	1. Field survey for assessing regional and local geology, aquifer distribution, Determination of groundwater use pattern, development of rainwater harvesting program. ***Period: December 2021 – Till now***	
8	SC	Dr. A. Dhamodharan	1. Interpretation of baseline report 2. Identification of possible impacts on soil, prediction of soil conservation and suggesting suitable mitigation measures. ***Period: December 2021 – Till now***	
9	AQ	Mrs. K. Vijayalakshmi	1. Collection of Meteorological data for the baseline study period 2. Plotting wind rose plot and thereby selecting the monitoring locations based on the wind pattern 3. Estimation of sources of air emissions and air quality modeling is done 4. Interpretation of the results obtained 5. Identification of the impacts and suggesting suitable mitigation measures. ***Period: December 2021 – Till now***	

10	NV	Mrs. K. Vijayalakshmi	1. Selection of monitoring locations 2. Interpretation of baseline data 3. Prediction of impacts due to noise pollution and suggestion of appropriate mitigation measures ***Period: May 2022 – Till now***	
11	LU	Dr. T. P. Natesan	1. Collection of Remote sensing satellite data to study the land use pattern. 2. Primary field survey and limited field verification for land categorization in the study area 3. Preparation of Land use map using Satellite data for 10km radius around the project site. ***Period: December 2021 – Till now***	
12	RH	Mrs. K. Vijayalakshmi	1. Identification of the risk 2. Interpreting consequence contours 3. Suggesting risk mitigation measures ***Period: December 2021 – Till now***	

Declaration by the Head of the accredited consultant organization/ authorized person

I, Dr. A. Dhamodharan, hereby, confirm that the above-mentioned experts prepared the EIA report of mining project at Survey Numbers. 86 (Part-3) Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District. I also confirm that the consultant organization shall be fully accountable for any misleading information mentioned in this statement.

Signature:



Name: Dr. A. Dhamodharan

Designation: Managing Director

Name of the EIA consultant organization: M/s. Eco Tech Labs Private Limited

NABET Certificate No. & Issue Date: NABET/EIA/2124/SA 0147

ANNEXURE-I

STANDARD TOR CONDITIONS WITH ADDITIONAL TOR POINTS

सत्यमेव जयते

THIRU.DEEPAK S. BILGI, I.F.S.
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY-TAMILNADU
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai - 600 015.
Phone No. 044-24359973
Fax No. 044-24359975

TERMS OF REFERENCE (ToR)

Lr No.SEIAA-TN/F.No.9499/ToR- 1309 /2022 Dated:07.12.2022.

To

M/s S.R.Enterprises
D.No: 25, Shanthi Nagar,
West 2nd Cross, Hosur Taluk,
Krishnagiri - 635 109

Sir / Madam,

Sub: SEIAA, Tamil Nadu – Terms of Reference with public Hearing (ToR) for the Proposed Rough Stone quarry over an extent of 2.00.00 Ha in S. F No. 86 (Part-3) Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District, Tamil Nadu by M/s. S.R. Enterprises - under project category – "B1" and Schedule S.No.1 (a) – ToR issued along with Public Hearing - preparation of EIA report – Regarding.

Ref: 1. Online proposal No.SIA/TN/MIN/402134/2022, dated 10.10.2022.
2. Your application submitted for Terms of Reference dated: 12.10.2022.
3. Minutes of the 331st SEAC meeting held on 24.11.2022.
4. Minutes of the 576th Authority meeting held on 07.12.2022.

Kindly refer to your proposal submitted to the State Level Impact Assessment Authority for Terms of Reference.

The proponent, M/s. S.R. Enterprises has submitted application for Terms of Reference (ToR) in Form-I, Pre- Feasibility report for the Proposed Rough Stone quarry over an extent of 2.00.00 Ha in S. F No. 86 (Part-3) Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District, Tamil Nadu.

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Discussion by SEAC and the Remarks:-

Proposed Rough Stone quarry over an extent of 2.00.00 Ha in S. F No. 86 (Part-3) Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District, Tamil Nadu by M/s. S.R. Enterprises- for Terms of Reference.

(SIA/TN/MIN/402134/2022dated 10.10.2022)

The proposal was placed in this 331st Meeting of SEAC held on 24.11.2022.The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The project proponent M/s. S.R. Enterprises has applied for Terms of Reference for the Proposed Rough Stone quarry over an extent of 2.00.00 Ha in S. F No. 86 (Part-3) Venkatesapuram Village of Shoolagiri Taluk, Krishnagiri District, Tamil Nadu
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan, the lease period is 5 years. The mining plan is for the period of five years & the production should not exceed 4,25,695 m^3 of Rough Stone and 38,740$m^3$of Top soil (Gravel) with an ultimate depth of mining 47m (2 m Topsoil (Gravel) + 45m Rough stone) [Surface ground level is 10m and surface ground level below depth is 37m]. The annual peak production 112935 m^3 of Rough Stone (1styear).

Based on the presentation made by the proponent, **SEAC recommended to grant of Terms of Reference (TOR) with Public Hearing subject** to the following TORs in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The Proponent shall submit the **'Production & Development Plan'** prepared as a part of the approved Mining Plan, duly signed by the concerned QP & approved by the concerned AD (Geology & Mining) during the EIA appraisal.
2. **The Proponent shall develop greenbelt and construct the garland drainage around the boundary of the proposed quarry and the photographs/videography indicating the same shall be shown during the EIA appraisal.**
3. **The proponent shall furnish a revised EMP budget for entire life of proposed mining. i.e. for 10 years of mining lease period as per the format prescribed.**
4. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.

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5. The structures within the radius of (i) 100 m, (ii) 300 m, and (iii) 500 m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.
6. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
7. The Proponent shall submit a conceptual 'Slope Stability Assessment' for the proposed quarry during the appraisal while obtaining the EC, as the depth of the proposed working is extended beyond 30 m below ground level.
8. The Proponent shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
9. The Proponent shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
10. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
11. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
    a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
    b. Quantity of minerals mined out.
    c. Highest production achieved in any one year
    d. Detail of approved depth of mining.
    e. Actual depth of the mining achieved earlier.
    f. Name of the person already mined in that leases area.
    g. If EC and CTO already obtained, the copy of the same shall be submitted.
    h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.

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12. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
13. The Proponent shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
14. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
15. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
16. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
17. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
18. The Pproponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
19. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
20. Rain water harvesting management with recharging details along with water balance (both

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monsoon & non-monsoon) be submitted.

21. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
22. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
23. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
24. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
25. Impact on local transport infrastructure due to the Project should be indicated.
26. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
27. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
28. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
29. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
30. The Proponent shall produce/display the EIA report, Executive summery and other related information with respect to public hearing in Tamil Language also.
31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.

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32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
33. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions

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given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

42. The Proponent shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.

43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

Appendix -I
List of Native Trees Suggested for Planting

No	Scientific Name	Tamil Name	Tamil Name
1	*Aegle marmelos*	Vilvam	விலவம்
2	*Adenaanthera pavonina*	Manjadi	மஞ்சாடி, ஆனைகுன்றிமணி
3	*Albizia lebbeck*	Vaagai	வாகை
4	*Albizia amara*	Usil	உசில்
5	*Bauhinia purpurea*	Mantharai	மந்தாரை
6	*Bauhinia racemosa*	Aathi	ஆத்தி
7	*Bauhinia tomentos*	Iruvathi	இருவாத்தி
8	*Buchanania axillaris*	Kattuma	காட்டுமா
9	*Borassus flabellifer*	Panai	பனை
10	*Butea monosperma*	Murukkamaram	முருக்கமரம்
11	*Bobax ceiba*	Ilavu, Sevvilavu	இலவு
12	*Calophyllum inophyllum*	Punnai	புன்னை
13	*Cassia fistula*	Sarakondrai	சரக்கொன்றை
14	*Cassia roxburghii*	Sengondrai	செங்கொன்றை
15	*Chloroxylon sweitenia*	Purasamaram	புரசு மரம்
16	*Cochlospermum religiosum*	Kongu, Manjalllavu	கோங்கு, மஞ்சள் இலவு
17	*Cordia dichotoma*	Naruvuli	நருவுளி
18	*Creteva adansoni*	Mavalingum	மாவிலங்கம்
19	*Dillenia indica*	Uva, Uzha	உசா
20	*Dillenia pentagyna*	SiruUva, Sitruzha	சிறு உசா
21	*Diospyro sebenum*	Karungali	கருங்காலி
22	*Diospyro schloroxylon*	Vaganai	வாகனை
23	*Ficus amplissima*	KalItchi	கல இச்சி
24	*Hibiscus tiliaceou*	Aatrupoovarasu	ஆற்றுப்பூவரசு
25	*Hardwickia binata*	Aacha	ஆச்சா
26	*Holoptelia integrifolia*	Aayili	ஆயா மரம், ஆயிலி
27	*Lannea coromandelica*	Odhiam	ஓதியம்
28	*Lagerstroemia speciosa*	Poo Marudhu	பூ மருது
29	*Lepisanthus tetraphylla*	Neikottaimaram	நெய் கொட்டை மரம்
30	*Limonia acidissima*	Vila maram	விலா மரம்
31	*Litsea glutinos*	Pisinpattai	அரம்பா, பீசின்பட்டை
32	*Madhuca longifolia*	Illuppai	இலுப்பை
33	*Manilkara hexandra*	UlakkaiPaalai	உலக்கை பாலை
34	*Mimusops elengi*	Magizhamaram	மகிழமரம்
35	*Mitragyna parvifolia*	Kadambu	கடம்பு
36	*Morinda pubescens*	Nuna	நுணா
37	*Morinda citrifolia*	Vellai Nuna	வெள்ளை நுணா
38	*Phoenix sylvestre*	Eachai	ஈச்சமரம்
39	*Pongamia pinnat*	Pungam	புங்கம்

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40	*Premna mollissima*	Munnai	முன்னை
41	*Premna serratifolia*	Narumunnai	நறு முன்னை
42	*Premna tomentosa*	Malaipoovarasu	மலை பூவரசு
43	*Prosopis cinerea*	Vanni maram	வன்னி மரம்
44	*Pterocarpus marsupium*	Vengai	வேங்கை
45	*Pterospermum canescens*	Vennangu, Tada	வெண்ணாங்கு
46	*Pterospermum xylocarpum*	Polavu	புலவு
47	*Putranjiva roxburghi*	Karipala	கறிபாலா
48	*Salvadora persica*	Ugaa Maram	உகா மரம்
49	*Sapindus emarginatus*	Manipungan, Soapukai	மணிப்புங்கன் சோப்புக்காய்
50	*Saraca asoca*	Asoca	அசோகா
51	*Streblus asper*	Piray maram	பிராய் மரம்
52	*Strychnos nuxvomic*	Yetti	எட்டி
53	*Strychnos potatorum*	Therthang Kottai	தேத்தான் கொட்டை
54	*Syzygium cumini*	Naval	நாவல்
55	*Terminalia belleric*	Thandri	தான்றி
56	*Terminalia arjuna*	Ven marudhu	வெண் மருது
57	*Toona ciliate*	Sandhana vembu	சந்தன வேம்பு
58	*Thespesia populnea*	Puvarasu	பூவரசு
59	*Walsuratrifoliata*	valsura	வால்சுரா
60	*Wrightia tinctoria*	Veppalai	வெப்பாலை
61	*Pithecellobium dulce*	Kodukkapuli	கொடுக்காப்புளி

Discussion by SEIAA and the Remarks:-

The subject was placed in 576th authority meeting held on 07.12.2022. The Authority noted that the subject was appraised in 331st SEAC meeting held on 24.11.2022. After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant **Terms of Reference (ToR) along with Public Hearing** under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal conditions in addition to the conditions in '**Annexure B**' of this minute.

1. Restricting the ultimate depth of mining up to 42m BGL (2m Topsoil + 40m Rough stone) and quantity of 4,06,265 cu.m of Rough Stone are permitted for mining over a period of five years considering the environmental impacts due to the mining, safety precautionary measures of the working personnel and following the principle of the sustainable mining.

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Annexure 'B'

1. Cluster Management Committee, which must include all the proponents in the cluster as members including the existing as well as proposed quarry.
2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,
3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.
4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.
5. The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.
6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the environmental policy devised shall be given in detail.
7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.
8. The committee shall furnish the Emergency Management plan within the cluster.
9. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public.
10. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area covering the entire mine lease period as per precise area communication order issued from reputed research institutions on the following
    a) Soil health & bio-diversity.
    b) Climate change leading to Droughts, Floods etc.
    c) Pollution leading to release of Greenhouse gases (GHG), rise in Temperature, & Livelihood of the local people.
    d) Possibilities of water contamination and impact on aquatic ecosystem health.
    e) Agriculture, Forestry & Traditional practices.
    f) Hydrothermal/Geothermal effect due to destruction in the Environment.
    g) Bio-geochemical processes and its foot prints including environmental stress.
    h) Sediment geochemistry in the surface streams.

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11. The committee shall furnish an action plan to achieve sustainable development goals with reference to water, sanitation & safety.
12. The committee shall furnish the fire safety and evacuation plan in the case of fire accidents.
13. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.
14. Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.
15. Impact on surrounding agricultural fields around the proposed mining Area.
16. Erosion Control measures.
17. Impact on soil flora & vegetation around the project site.
18. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.
19. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.
20. As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.
21. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities.
22. The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.
23. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.
24. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.
25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.
26. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.

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27. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.
28. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.
29. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.
30. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.
31. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.
32. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.
33. The project proponent shall study and furnish the details on potential fragmentation impact of natural environment, by the activities.
34. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.
35. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on aquatic environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.
36. The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.
37. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.
38. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its

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related activities covering the entire mine lease period as per precise area communication order issued.

39. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.
40. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.
41. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued.

A. STANDARD TERMS OF REFERENCE

1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ topo sheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
5) Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The

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hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.

9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.

14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other

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protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.

20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to

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shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.

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29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.

31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.

35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

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38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

44) Besides the above, the below mentioned general points are also to be followed:-

a) Executive Summary of the EIA/EMP Report

b) All documents to be properly referenced with index and continuous page numbering.

c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.

d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.

e) Where the documents provided are in a language other than English, an English translation should be provided.

f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA. II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH

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again with the revised documentation.

i) As per the circular no. J-11011/618/2010-IA. II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

In addition to the above, the following shall be furnished:-

The Executive summary of the EIA/EMP report in about 8-10 pages should be prepared incorporating the information on following points:

1. Project name and location (Village, District, State, Industrial Estate (if applicable).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
3. Measures for mitigating the impact on the environment and mode of discharge or disposal.
4. Capital cost of the project, estimated time of completion.
5. The proponent shall furnish the contour map of the water table detailing the number of wells located around the site and impacts on the wells due to mining activity.
6. A detailed study of the lithology of the mining lease area shall be furnished.
7. Details of village map, "A" register and FMB sketch shall be furnished.
8. Detailed mining closure plan for the proposed project approved by the Geology of Mining department shall be shall be submitted along with EIA report.
9. Obtain a letter /certificate from the Assistant Director of Geology and Mining standing that there is no other Minerals/resources like sand in the quarrying area within the approved depth of mining and below depth of mining and the same shall be furnished in the EIA report.
10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase

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in the above study shall be substantiated with mitigation measures.

14. A study on the geological resources available shall be carried out and reported.
15. A specific study on agriculture & livelihood shall be carried out and reported.
16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.
24. Occupational Health Measures
25. Post project monitoring plan
26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
30. Reserve funds should be earmarked for proper closure plan.
31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

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Besides the above, the below mentioned general points should also be followed:-

a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.

b. All documents may be properly referenced with index, page numbers and continuous page numbering.

c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.

d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF & CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.

e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -l1013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website http://www.moef.nic.in/ may be referred.

- After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned points, the proponent willtake further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
- The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance.
- The TORs with public hearing prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I) (part) dated 29th August, 2017.

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Copy to:

1. The Additional Chief Secretary to Government, Environment & Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan,CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board,76, Mount Salai, Guindy, Chennai-600 032.
4. The APCCF (C), Regional Office, MoEF & CC (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai -34.
5. Monitoring Cell, IA Division, Ministry of Environment, Forests & CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
6. The District Collector, Krishnagiri District.
7. Stock File.

COMPLIANCE OF TOR CONDITIONS

Point wise compliance of ToR points issued by SEIAA, TN vide letter No. SEIAA-TN/F. No. 9499/SEAC/ToR-1309/2022 Dated: 07.12.2022 for Mining of Minor Minerals in the Mine of Proposed Rough stone Quarry Over an Extent of 2.00.0 Ha at S.F.No.86 (Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu State.

ToR Ref.	Description	Response	Page Ref. in EIA Report
1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 came into force w.r.t. the highest production achieved prior to 1994.	This is a existing mining project of Proposed Rough stone quarry. Precise Area Communication Letter received from Deputy Director, Department of Geology and Mining, Krishnagiri vide letter Rc.No.546/2022 Mines dated 04.05.2022. Mining Plan was approved by the Deputy Director, Dept. of Geology & Mining, Krishnagiri vide letter Rc.No.546/2022 Mines dated 29.06.2022. As area is being exploited for the first time hence Year-wise production details since 1994 and before 1994 are not relevant or applicable. Proposed Production of Rough Stone	Chapter-2 Table No.2.9 Page No.48

<table>
<tr><td></td><td></td><td>for five years is proposed in the EIA/EMP in chapter no-2.
<table><tr><th>Year</th><th>Rough stone (m^3)</th></tr><tr><td>I</td><td>112935</td></tr><tr><td>II</td><td>74930</td></tr><tr><td>III</td><td>63180</td></tr><tr><td>IV</td><td>95110</td></tr><tr><td>V</td><td>60110</td></tr><tr><td>Total</td><td>406265</td></tr></table></td><td></td></tr>
<tr><td>2.</td><td>A copy of document in support of the fact that the Proponent is the rightful lessee of the mine should be given.</td><td>The mine lease area of 2.00.0 hectare in Venkatesapuram Village for Rough stone quarry approved by Deputy Director, Geology & Mining, Krishnagiri vide letter Rc.No.546/2022 Mines dated 04.05.2022</td><td>Annexure - III</td></tr>
<tr><td>3</td><td>All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.</td><td>All the documents i.e., Mining Plan, EIA and public hearing are compatible with each other in terms of ML area production levels, waste generation and its management and mining technology are compatible with one another.
The mining plan of the project site has been submitted to The Assistant Director, Dept. of Geology & Mining, Krishnagiri.</td><td>Annexure-VI
Chapter- II</td></tr>
<tr><td>4</td><td>All corner coordinates of the mine lease area, superimposed on a High-Resolution</td><td>Details of coordinates of all corners of proposed mining lease area have been incorporated in mining plan</td><td>Chapter-2,
Fig no. 2.2</td></tr>
</table>

	Imagery/toposheet should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	and Chapter 2 of EIA/ EMP Report.	Page. no. 38
5	Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, important water bodies, streams and rivers and soil characteristics	Topo map as attached in Chapter-2	Chapter-2, Fig no. 2.4 Page. no. 40
6.	Details about the land proposed for mining activities should be given with information as to whether conforms to the land use policy of the state; land diversion for mining should have approval from State land use board or the concerned authority	Details about the land proposed for mining activities given in Chapter 2.	Chapter-2 Page 42
7	It should be clearly stated whether the proponent company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions?	Noted.	

	The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large may also be detailed in the EIA report.		
8	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.	It is an open cast mining project. Blasting details are incorporated in chapter 2.	Chapter-2, Page no.52
9	The study area will comprise of 15 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine / lease period.	Study area comprises of 15 km radius from the mine lease boundary. Key Plan showing core zone (ML area).	Chapter-2 Fig no. 2.5 Page no.41
10	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park,	Land Use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, National Park, migratory routes of	Chapter-2, Table no. 2.4 Page no.42

	migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	fauna, water bodies, human settlement and other ecological features has been prepared and incorporated in Chapter-3 of EIA/ EMP Report. There is no wildlife sanctuary and national park, migratory routes of fauna in the study area.	
11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.	The entire lease area covers 2.0m of Topsoil and estimated quantity of Topsoil is 38740m^3. Topsoil formation will be removed and transported to the needy users, only after obtaining permission and paying necessary seigniorage fees to the Government.	Chapter-2, Page no.50
12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to	Complied. The proposed mining lease area is not falling under forest land.	

	ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.		
13	Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.	The proposed mining lease area is not falling under forest land.	
14	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	Not Applicable. There is no involvement of forest land in the project area.	
15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.	Details of flora have been discussed in Chapter-3 of the EIA/EMP Report.	Chapter-3 Pg No. 93

16	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.	There is a relatively poor sighting of animals in the core and buffer areas of the mining lease. No significant impact is anticipated	
17	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves/ (existing as well as proposed), if any, within 10km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished	There is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger / Elephant Reserves / Critically Polluted areas within 10 km radius of the mining lease area.	
18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall	Details biological study (flora & fauna) within 10 km radius of the project site have been incorporated in Chapter-3 of EIA/ EMP Report.	

	be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	No flora & fauna listed in scheduled I have been found in study area so there is no need of conservation plan. However, all care will be taken for protection of flora & fauna, if any in the lease hold area.	Chapter – 3 Pg No. 101
19	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.	The proposed mining lease area is not falling under critically polluted area.	
20	Similarly, for coastal projects, A CRZ map duly authenticated by	There is no Coastal Zone within 15km radius of the project site.	

	one of the authorized agencies Similarly, for coastal projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)		
21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly	There is no Rehabilitation and resettlement is involved. Land classified as Patta land	

	brought out whether the village located in the mine lease area will be shifted or not. The issues relating to shifting of Village including their R&R and socio-economic aspects should be discussed in the report.		
22	One season (non-monsoon) and (Summer Season), (Post monsoon) primary baseline data on ambient air quality CPCB Notification of 2009 water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre- dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of	Baseline data collected during Pre-Monsoon Season and Monsoon (Dec 2022 to Feb 2023) has been incorporated in EIA/EMP report. The key plan of monitoring station has been discussed in Chapter-4. Locations of the monitoring stations have been selected keeping in view the pre- dominant downwind direction and location of the sensitive receptors and also that they represent whole of the study area.	Chapter 3

	PM10, particularly for free silica, should be given.		
23	Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing predominant wind direction may also be indicated on the map.	Air quality modelling & Impact of Air quality will be furnished in Final EIA report. Transportation of mineral during operation of mines will be done by road & MDR 422 through dumpers and the impact of movement of vehicles are incorporated in EIA/EMP report. Air quality modelling & Impact of Air quality will be furnished in Final EIA report.	Chapter-4 Page No.109
24	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.	Total water requirement: 2.0 KLD Dust Suppression: 0.5 KLD Domestic Purpose: 1 KLD Plantation :0.5 KLD Domestic Water will be sourced from nearby Venkatesapuram which is about 0.82Km from the site.	Chapter-2 Page no.53
25	Necessary clearance from the Competent Authority for drawl of requisite quantity of	Not Applicable Water will be taken from nearby villages	

	water for the Project should be provided.		
26	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	At the last stage of mining operation, almost complete area will be worked to restore the land to its optimum reclamation for future use as water reservoir.	
27	Impact of the project on the water quality, both surface and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.	Impact of the project on the water quality & its mitigation measures has been incorporated in Chapter-4 of EIA/EMP report.	Chapter-4 Page No.108
28	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	Maximum working depth: 42m (2m Topsoil + 40m Rough stone) 10m AGL + 32m BGL The ground Water Level is noticed at the depth of 70m below Ground Level by monitoring nearby bore hole, Mining depth taken as 42m (Surface Ground Level Above Height 10m & Surface Ground Level Below Depth 32m). Now, the proposed quarry depth is above the water table. Hence, quarrying may not affect the ground water.	Chapter-2 Page no. 36
29	Details of any stream, seasonal or otherwise, passing through the lease	There is no any stream crossing in the proposed quarry.	Executive Summary

	area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.		
30	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.	The altitude of the area is Maximum 868m and Minimum 858m above MSL. The ground Water Level is noticed at the depth of 70m BGL.	Chapter-2 Table no. 2.2 Page no. 35
31	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant pollution	Green Belt Development plan is proved given in Chapter 2.	Chapter-2

32	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project proponent shall conduct impact of Transportation study as per Indian Road Congress Guidelines	Impact on local transport infrastructure due to the project has been assessed. There shall not be much impact on local transport. Traffic density from the proposed mining activity has been incorporated in EIA/EMP report.	Chapter-3 Page No.103
33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.	Adequate infrastructure & other facilities shall be provided to the mine workers. Details are given in chapter-2 of EIA/EMP	Chapter-2
34	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.	Conceptual post mining land use and Reclamation and restoration sectional plates are given in Mining Plan followed by Scheme of mining.	Mining plates Annexure VII
35	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures	Suitable measure will be adopted to minimize occupational health impacts of the project. The project	Chapter-10 Pg No. 139

	spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project in the mining area may be detailed	shall have positive impact on local environment. Details are given in chapter-10 of EIA/EMP.	
36	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Suitable measure will be adopted to minimize occupational health impacts of the project.	Chapter-10 Pg No. 139
37	Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	Suitable measures have been discussed in Chapter 3	Chapter-4 Pg No. 101
38	Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.	Environment Management Plan has been described in detail in Chapter-9 of the EIA/EMP Report.	Chapter-9 Pg No. 134
39	Public hearing points raised and	Public Hearing proceedings will be	

<table>
<tr><td></td><td>commitment of the project proponent on the same along with time bound action plan to implement the same should be provided and incorporated in the final EIA/EMP Report of the Project.</td><td>furnished in Final EIA report</td><td></td></tr>
<tr><td>40</td><td>Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.</td><td>Not applicable

No. litigation is pending against the project in any court.</td><td></td></tr>
<tr><td>41</td><td>The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.</td><td><table><tr><th>S. No</th><th>Description</th><th>Cost</th></tr><tr><td>1</td><td>Fixed Asset Cost</td><td>3,25,90,000/-</td></tr><tr><td>2</td><td>Operational Cost</td><td>30,00,000/-</td></tr><tr><td>3</td><td>EMP</td><td>81,41,002/-</td></tr><tr><td></td><td>Total</td><td>4,37,31,002/-</td></tr></table></td><td>Chapter-8
Pg No. 132</td></tr>
<tr><td>42</td><td>Disaster Management Plan</td><td>Disaster Management and Risk Assessment has been incorporated in Chapter-7</td><td>Chapter-7
Pg No. 125</td></tr>
<tr><td>43</td><td>Benefits of the project if the project is implemented should be spelt out. The benefits of the project shall clearly indicate environmental, social economic, employment potential etc.</td><td>Benefits of the project has incorporated</td><td>Chapter-8
Pg No. 132</td></tr>
<tr><td>44</td><td>Besides the above, the below</td><td></td><td></td></tr>
</table>

	mentioned general points are also to be followed:		
(a)	Executive Summary of the EIA/EMP report	Executive Summary of EIA Report is given from page No.10-25	
(b)	All documents to be properly referenced with index and continuous page numbering.	Complied	
(c)	Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.	Complied	
(d)	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the project.	Complied	
(e)	Where the documents provided are in a language other than English, an English translation should be provided.	Complied	
(f)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	The complete questionnaire has been prepared	
(g)	While preparing the EIA report,	The EIA report has been	

	the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA. II(I) dated4th August 2009, which are available on the website of this Ministry, should also be followed.	prepared and complying with the circular issued by MoEF vide O.M. No. J-11013/41/2006-IA. II(I) dated 4th August 2009.	
(h)	Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation	There are no changes in prepared EIA as per submitted Form-1 & PFR	
(i)	As per the circular no. J-11011/618/2010-IA. II(I) dated 30.5.2012, report on the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project by the Regional Office of Ministry of	Will be complied after grant environment clearance from SEIAA, Tamilnadu	

	Environment & Forests, if applicable.		
(j)	The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections (iii) sections of mine pit and external dumps, if any clearly showing the features of the adjoining area.	All Sectional Plates of Quarry is enclosed in Mining Plan.	

Additional ToR Compliance

S.No.	Condition	Compliance
1.	The Proponent shall submit the **'Production & Development Plan'** prepared as a part of the approved Mining Plan, duly signed by the concerned QP & approved by the concerned AD (Geology & Mining) during the EIA appraisal.	The Proponent will submit the 'Production & Development Plan' prepared as a part of the approved Mining Plan, duly signed by the concerned QP & approved by the concerned AD (Geology & Mining) during the EIA appraisal.
2.	The Proponent shall develop greenbelt and construct the garland drainage around the boundary of the proposed quarry and th photographs/videography indicating the same shall be shown during the EIA appraisal.	The Proponent will develop greenbelt and construct the garland drainage around the boundary of the proposed quarry and th photographs/videography indicating the same shall be shown during the EIA appraisal.
3.	The proponent shall furnish a revised EMP budget for entire life of proposed mining i.e., for 10 years of mining lease period as per the format prescribed.	Revised EMP budget for 10 Years will be submitted in Final EIA.
4.	The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report	Ecology and Biodiversity is studied for 10km radius around the project site and incorporated in chapter 3.
5.	The structure within the radius of (i) 100m, (ii) 300m & (iii) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc.,	Noted. Enumerated study report will be submit on Final EIA report.

6.	In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.	It is an existing quarry. The Proposed project total extent area is 2.00.00 Ha, It is a Government Poramboke land. Existing quarry operation made by different person.
7.	The Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30m below ground level.	The depth of the proposed quarry is 42.0m (2m Topsoil + 40m Rough stone) 10m AGL + 32m BGL. The slope stability report will be submitted in Final EIA.
8.	The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.	The PP will furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent
9.	The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30m from the blast site.	Noted. Agree to comply.
10.	The EIA Coordinator shall obtain and furnish	It is an existing quarry and earlier

	the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and Photographic evidence.	operation done by the different person. The proposed quarry operation is to be newly operate by the proponent.
11.	If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines, a. What was the period of the operation and stoppage of the earlier mines with the last work permit issued by the AD/DD mines? b. Quantity of minerals mines out. c. Highest production achieved in any one year. d. Details of approved depth of mining. e. Actual depth of the mining achieved earlier. f. Name of the person already mined in that leases area. g. If EC and CTO already obtained, the copy of the same shall be submitted. h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.	It is an Existing quarry. Earlier quarry operation done by different persons. Existing Pit dimension letter attached as Annexure. 28300m^3 20.0m Thiru.Gopal As per available records the pit is age old pit quarried illicitly and action has already been initiated to take action against Thiru. Gopal for the illicit quarrying carried out earlier in Govt land S.F.No 86 (part-3) of Venkatesapuram village.
12.	All corner coordinates of the mine lease area,	Complied.

	superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological feature of the study area (core and buffer zone)	All corners with coordinates of the mine lease area have attached with EIA report in chapter 2
13.	The Project Proponent shall carry out Drone video survey covering survey covering the cluster, green belt, fencing etc.,	Drone video survey will be submitted in final EIA report.
14.	The Project Proponent shall furnish photographs of adequate fencing, green belt along periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.	The photographs of fencing and green belt along periphery will be submitted in final EIA report.
15.	The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justification, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same	The details of Geological reserves, Mineable reserves and Yearwise production reserves are tabulated in Chapter 2. The mining methodology and impacts are followed as on prescribed norms by Government.
16.	The PP shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.	Complied. Manpower requirements table attached in EIA report chapter 2

17.	The PP shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface Water bodies such as rivers, tanks, canals, ponds etc., within 1km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD/TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.	Hydro geological study report will be submitted along final EIA report.
18.	The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.	The proponent has furnished the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study details attached in EIA report chapter 3
19.	The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.	Noted. Agree to comply.

20.	Rainwater harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	Noted. Agree to comply.
21.	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given	Current land use of the study area has attached in EIA report chapter 3. Operational and post operational land use will be submitted.
22.	Details of the land for storage of Overburden/Waste dumb (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.	The entire lease area is covered 2.0m of Topsoil and estimated quantity of Topsoil is 38740m^3. Topsoil formation will be removed and transported to the needy users, only after obtaining permission and paying necessary seigniorage fees to the Government.
23.	Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered	The proposed mining lease area is not falling under critically polluted area.
24.	Description of water conservation measures	The ultimate pit at the end of the mining

	proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	operation will be used for rainwater storage, the stored water will be used for green belt development and further the stored water will be used for domestic purposes (other than drinking) after proper treatment.
25.	Impact on local transport infrastructure due to the Project should be indicated.	Traffic impact assessment has given in EIA report chapter 3.
26.	A tree survey study shall be carried out (nos., name of the species, diameter, etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.	No tree species were found inside the project site. only few shrubs and thorny bushes were present. Tree survey study details given in EIA report chapter 3.
27.	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	Noted. The mining plan and mine closure plan has been approved by the Assistant Director, Department of Mining and Geology, Krishnagiri District
28.	Public hearing points raised and commitments of the PP on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF & CC accordingly.	Noted and will be complied in Final EIA report.
29.	The Public hearing advertisement shall be published in on major National daily and one most circulated vernacular daily	The Public hearing advertisement will be published in one major National daily and one most circulated vernacular daily.
30.	The PP shall produce/display the EIA report, Executive summary and other related	Noted.

	information with respect to public hearing Tamil Language also.	
31.	As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.	Noted. Agree to comply
32.	The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.	Around 1000 (200 per year) tress will be planted in and around the site. The list of trees to be planted are given below: Neem, Pungam, Poovarasu, Naval, Mantharai, Arasa Maram, Magizham, Vilvam, vaagai, Marudha maram, Thandri, Poovarasu, Quaker buttons, Thethankottai maram, Manjadi, Usil, Aathi, Panai, Uzha, Illuppai, Eachai, Vanni Maram
33.	Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/ botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt arca with GPS coordinates all along the boundary of the project site with at least 3 meter wide and in between blocks in an organized manner.	The green belt plan enclosed with mining plates in Annexure VII

34.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	Disaster management plan has prepared and enclosed in Chapter 7.
35.	A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report fir the complete life of the proposed quarry (or) till the end of the lease period.	Risk assessment and management plan has prepared and enclosed in chapter 7.
36.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	Suitable measure will be adopted to minimize occupational health impacts of the project. The project shall have positive impact on local environment. Details are given in chapter-10 of EIA/EMP.
37.	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Public health implication and remedial measures is given in EIA/EMP report.
38.	The Socio-economic studies should be carried out within a 5km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be	The socio-economic study has been discussed in chapter 3.

	given with time frames for implementation.	
39.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given	No litigation is pending against the project in any court.
40.	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.,	Benefits of the project has incorporated in EIA report chapter 8
41.	If any quarrying operations were caried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB	It is an existing quarry. Government Poramboke Land. Earlier operation done by different persons.
42.	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	Noted. Agree to comply.
43.	concealing any factual information or submission of false/fabricated data and failure to comply with any of the Condition mentioned above may result in withdrawal of this Terms of conditions besides attracting penal provisions in the Environment (Protection) Act, 1986	Noted.

Additional ToR by SEIAA		
1.	Restricting the ultimate depth of mining up to 42m BGL (2m Topsoil + 40m Rough stone) and quantity of 4,06,265 cu.m of Rough Stone are permitted for mining over a period of five years considering the environmental impacts due to the mining. safety precautionary measures of the working personnel and following the principle of the sustainable mining.	Complied The revised mining plates are attached with EIA/EMP report.

ANNEXURE-II

PRECISE AREA COMMUNICATION LETTER

Annexure -I

ந.க.எண். 546/2022/கனிமம் நாள்: 04.05.2022

புவியியல் & சுரங்கத் துறை,
மாவட்ட ஆய்சியாகம்,
கிருஷ்ணகிரி

29 JUN 2022

குறிப்பாணை

பொருள் கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - கிருஷ்ணகிரி மாவட்டம் அரசு புறம்போக்கு புலங்களில் அமைந்துள்ள கற்குவாரிகள் - டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது தொடர்பாக அரசிதழ் வெளியீடு - சூளகிரி வட்டம் - வெங்கடேசபுரம் கிராமம் - புல எண்.86(பகுதி-3) 2.00.0 ஹெக்டேர் பரப்பில் 05.04.2022 அன்று டெண்டருடன் இணைந்த ஏலம் நடத்தப்பட்டது - ஏலத்தில் அதிகபட்ச குத்தகை தொகை குறிப்பிட்ட தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் என்கிற நிறுவனம் ஏலம் உறுதி செய்யப்பட்டது - விதிகளின்படி குத்தகை தொகை முழுவதும் செலுத்தப்பட்டது - குத்தகை உரிமம் வழங்கிட வேண்டி ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச் சூழல் ஆணைய முன் அனுமதி பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:

1. வட்டாட்சியர், சூளகிரி கடிதம் ந.க.எண்.51/2022/அ2 நாள்:21.01.2022.
2. வருவாய் கோட்டாட்சியர் ஓசூர் அறிக்கை ந.க.எண்.103/2022/பி2 நாள்:04.02.2022.
3. வன உயிரின காப்பாளர், ஓசூர் கடிதம் ந.க.எண்.261/2022/எவ் நாள்:10.02.2022.
4. கிருஷ்ணகிரி மாவட்ட புவியியல் மற்றும் சுரங்கத் துறை நில அளவர், தனி வருவாய் ஆய்வாளர் மற்றும் உதவி புவியியலாளர் (கனிமம்) புலதணிக்கை அறிக்கை நாள்:11.02.2022.
5. கிருஷ்ணகிரி மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.15 நாள்:14.03.2022 மற்றும் எண்.20 நாள்:28.03.2022.
6. தி இந்து செய்தி நாளிதழில் விளம்பரம் நாள்:17.03.2022.
7. தி இந்து, தினகரன், தினமலர் மற்றும் காலைக்கதிர் ஆகிய செய்தி நாளிதழ்களில் 29.03.2022 அன்று வெளியிடப்பட்ட மாவட்ட ஆட்சியரின் அறிவிக்கை.
8. திரு.ஸ்ரீகர் மற்றும் சுமுகா புளு மெட்டல்ஸ் என்பவர் டெண்டர் விண்ணப்பம் நாள்:04.04.2022.
9. தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் மற்றும் ஐந்து நபர்களின் ஏல விண்ணப்பங்கள் நாள்:05.04.2022.
10. தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் என்பவரது கடிதம் நாள்:19.04.2022.
11. தொடர்புடைய ஆவணங்கள்.

பார்வையில் காணும் கடிதங்களின்பால் கனிவான கவனம் வேண்டப்படுகிறது.

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2. கிருஷ்ணகிரி மாவட்டம், சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம் அரசு புல எண்.86(பகுதி-3) விஸ்.2.00.0 ஹெக்டேர் பரப்பில் அமைந்துள்ள சாதாரண கற்குவாரியை டெண்டர் / பொது ஏலத்திற்கு கொண்டு வர உரிய நில இருப்பு அறிக்கை வருவாய் கோட்டாட்சியரிடம் கோரப்பட்டதில், சூளகிரி வட்டாட்சியர், ஓசூர் வருவாய் கோட்டாட்சியர் மற்றும் கிருஷ்ணகிரி மாவட்ட புவியியல் மற்றும் சுரங்கத் துறை நில அளவர், தனி வருவாய் ஆய்வாளர் மற்றும் உதவி புவியியலாளர் (கனிமம்) ஆகியோர் தணிக்கை மேற்கொண்டு கிருஷ்ணகிரி மாவட்டம், சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம் அரசு புறம்போக்கு தீ.ஏ.த.கரடு புல எண.86(பகுதி-3) விஸ்.2.00.0 ஹெக்டேர் பரப்பு பூமியினை குத்தகை உரிமம் வழங்கிட விதிகளின்படி மேற்கண்ட புலம் தகுதி வாய்ந்தது என்பதால் டெண்டருடன் இணைந்த ஏலத்தின் மூலம் உரிமம் வழங்கிட பரிந்துரை செய்துள்ளனர். வன உயிரின காப்பாளர், ஓசூர் மேற்கண்ட புலங்கள் விதிகளின்படி அருகில் உள்ள காப்பு காடுகளுக்கு வரையறுக்கப்பட்ட பாதுகாப்பு தொலைவிற்கு அப்பால் அமைந்துள்ளதாக அறிக்கை அளித்துள்ளார்.

3. அதன் அடிப்படையில், கிருஷ்ணகிரி மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக கிருஷ்ணகிரி மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.15 நாள்:14.03.2022 மற்றும் எண்.20 நாள்:28.03.2022-ன்படி பிரசுரம் செய்யப்பட்டது. அதன்படி 04.04.2022-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 05.04.2022 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

4. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.(18), சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.கரடு) புல எண்.86(பகுதி-3)-ல் 2.00.0 ஹெக்டேர் பரப்பில் உள்ள கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் ஏலத்தில் கோரிய தொகை ரூ.3,23,00,000/- மாவட்ட ஆட்சித் தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத் தொகையை விட அதிகமாக இருந்ததால் அவருக்கு ஏலம் ஊர்ஜிதம் செய்யப்பட்டது. மேற்கண்ட ஏலதாரர் மொத்த குத்தகை தொகையையும் விதிகளின்படி 19.04.2022-க்குள் செலுத்தியுள்ளார்.

5. எனவே, ஏலதாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் கோரிய தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி நபருக்கு சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.கரடு) புல எண்.86(பகுதி-3)-ல் 2.00.0 ஹெக்டேர் பரப்பு புலத்தில் ஐந்து (05) ஆண்டுகளுக்கு

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குவாரி உரிமம் வழங்க ஏதுவாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.41-ன்படி கீழ்க்கண்ட நிபந்தனைகளுடன் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை 90 தினங்களுக்குள் சமர்பிக்கவும், அதன் தொடர்ச்சியாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-ன்படி மாவட்ட சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய இசைவு பெற்று சமர்பிக்கும் பட்சத்தில் சாதாரண கற்குவாரி உரிமம் வழங்கப்படும் என்ற விவரம் இதன் மூலம் தெரிவிக்கப்படுகிறது.

நிபந்தனைகள்:

a. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.

b. அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர், அரசு புறம்போக்கு புலங்களுக்கு 10 மீட்டர் மற்றும் இதர நிலையான அமைப்புகளுக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரிப் பணி மேற்கொள்ள வேண்டும்.

c. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்பிக்க வேண்டும்.

d. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

ஒம்/- வி.ஜெய சந்திர பானு ரெட்டி
மாவட்ட ஆட்சித் தலைவர்,
கிருஷ்ணகிரி.

// உண்மை நகல்// உத்தரவுபடி//

மாவட்ட ஆட்சியருக்காக,
கிருஷ்ணகிரி

பெறுநர்:
தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ்,
எண்.25, சாந்தி நகர் - மேற்கு,
2வது கிராஸ், ஒசூர்,
ஒசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம்.

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CNM/270/2016/A

நகல்: 1. இயக்குநர், புவியியல் மற்றும் சுரங்கத் துறை, சென்னை
2. தமிழ்நாடு மாநில சுற்றுச்சூழல் மதிப்பீட்டு ஆணையம், சென்னை.

ANNEXURE-III

MINING PLAN APPROVED LETTER

From

Dr.S.Vediappan,M.Sc.,Ph.D.,
Deputy Director,
Dept of Geology and Mining,
Krishnagiri.

To

M/s. S.R.Enterprises,
D.No. 25, Shanthi nagar,
West, 2nd Cross,
Hosur Taluk,
Krishnagiri – 635 109.

Rc.No.546/2022/Mines Dated: 29.06.2022.

Sir,

Sub: Mines and Minerals – Rough stone - Krishnagiri District – Shoolagiri Taluk – Venkatesapuram Village- Govt Poramboke land in S.F.No. 86 (Part-3) Over an extent of 2.00.0 Hects – Tender Cum Auction conducted – M/s. S.R.Enterprises declared as highest bidder – Precise area communicated - Draft Mining Plan submitted for approval - Approved - reg.

Ref:
1. Krishnagiri District, Extraordinary Gazette notification No. 15 & 20, dated 14.03.2022 & 28.03.2022.
2. This Office Letter No.546/2022/Mines dated: 04.05.2022.
3. Draft Mining plan submitted by M/s. S.R.Enterprises, dated: 13.06.2022.

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Kind attention is invited to the references cited above.

2. Tender Cum Auction has been conducted on 05.04.2022 for the grant of quarry lease to quarry rough stone in government lands situated in Krishnagiri district including S.F.No. 86 (Part-3) Over an extent of 2.00.0 Hects of Venkatesapuram Village, Shoolagiri Taluk, M/s. S.R.Enterprises has quoted highest lease amount and hence he has been declared as successful bidder.

3. Accordingly, M/s. S.R.Enterprises has been directed to submit the mining plan for approval and to obtain Environmental Clearance for quarrying Rough stone over an extent of 2.00.0 Hects of Government Poramboke land in S.F.No. 86 (Part-3) in Venkatesapuram Village, Shoolagiri Taluk, Krishangiri District for a

period of 5 (Five) years under the provisions of Rule 8 of Tamil Nadu Minor Mineral Concession Rules, 1959.

4. In this regard, the bidder M/s. S.R.Enterprises had submitted 03 copies of draft Mining Plan vide letter dated: 13.06.2022 and the same has been examined in detail and it is found correct.

5. As per the mining plan the year wise production for the proposed five years are as follows.

	Year	Recoverable Reserves (m^3) @ 100%	Top Soil (Gravel)in (m^3)
Five Years	1st Year	188958	38740
	2nd year	100457	0
	3rd year	84357	0
	4th year	69657	0
	5th year	100814	0
	Total	**544243**	**38740**

6. Hence, as per the powers delegated under Rule 42 of TNMMCR, 1959 and also as per the guidelines/instructions issued by the Commissioner of Geology and Mining, vide letter Rc.No.3868/LC/2012 dated:19.11.2012, the said mining plan submitted by the M/s. S.R.Enterprises is here by approved subject to the following conditions.

i. That the mining plan is approved without prejudice to any other law applicable to the quarry lease from time to time whether such laws are made by the Central Government, State Government or any other authority.

ii. This approval of the mining plan does not in any way imply the approval of the Government in terms of any other provisions of Mines and Minerals Development and Regulation) Act 1957, or any other connected laws including Forest (Conservation) Act 1957, or any other connected Laws industry Forest (Conservation) Act 1980,

Forest Conservation Rules 1981 Environment protection Act 1980, Indian Explosive Act 1884 (Central Act IV of 1884) and the rules made there under, Minor Mineral Conservation and Development Rules, and The Tamil Nadu Minor Mineral Concession rules, 1959.

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

iv. All the conditions mentioned in the precise area letter should be followed during quarry operation as per rules.

v. The applicant should get prior Environmental clearance from the appropriate authority and should submit it to the District Collector, Krishnagiri.

vi. Provisions of the Mines Act 1952 and the rules and regulation made there under including submission of notice of opening, appointment of manager and other statutory officials has required under Mines Act 1952 shall be complied with.

vii. Provisions made under the Mines and Minerals (Development and Regulation) Acts 1957, amended Act 2015 made there under shall be complied with.

viii. This approval of Mining Plan is restricted to the mining lease area only as shown in the plan.

ix. The earlier instances of irregular / illegal quarrying, if any shall not be regularized through the approval of this document.

x. The applicant shall remit penalty /cost of the mineral /other dues if any.

xi. Every Mining Plan duly approved under rule 41(9) of TNMMCR, 1959 shall be valid for a period of five years. Further, the applicant shall submit modification in the mining plan if any, review the mining plan and submit scheme of mining plan for the next five years of the lease if any as per TNMMCR 1959.

xii. Non adherence to any condition set out above, the approval shall be deemed to have been withdrawn with immediate effect.

Deputy Director,
Dept of Geology and Mining,
Krishnagiri.

29/6/22

Copy submitted to : 1. The Commissioner,
Dept of Geology and Mining,
Guindy, Chennai -32.

ANNEXURE-IV

500M Radius letter

From
Dr. S.Vediappan, M.Sc.,Ph.d.,
Deputy Director,
Dept of Geology and Mining,
Krishnagiri.

To
M/s. S.R.Enterprises,
D.No. 25, Shanthi nagar,
West, 2nd Cross,
Hosur Taluk,
Krishnagiri – 635 109.

Roc.No.546/2022/Mines Dated: 29.06.2022

Sir,

Sub: Mines and Minerals – Rough stone - Krishnagiri District – Shoolagiri Taluk – Venkatesapuram Village- Govt Poramboke land in S.F.No. 86 (Part-3) Over an extent of 2.00.0 Hects – Tender Cum Auction conducted – M/s. S.R.Enterprises declared as highest bidder - Mining Plan approved – Other quarry situated in 500 mtrs radial distance – Details furnished - reg.

Ref:
1. Krishnagiri District, Extraordinary Gazette notification No. 15 & 20, dated 14.03.2022 & 28.03.2022.
2. This Office Letter No.546/2022/Mines dated: 04.05.2022.
3. Draft Mining plan submitted by M/s. S.R.Enterprises, dated: 13.06.2022
4. This Office Letter No.546/2022/Mines dated: 29.06.2022

****

Kind attention is invited to the references cited above.

2. Tender Cum Auction has been conducted on 05.04.2022 for the grant of quarry lease to quarry rough stone in government lands situated in Krishnagiri district including S.F.No. 86 (Part-3) over an extent of 2.00.0 Hects of Venkatesapuram Village, Shoolagiri Taluk.

3. M/s. S.R.Enterprises has quoted highest lease amount and hence he has been declared as highest bidder for the grant of quarry lease for quarrying Rough stone over an extent of 2.00.0 Hects of government lands in S.F.No. 86 (Part-3) in Venkatesapuram Village, Shoolagiri Taluk, Krishangiri District for a period of 5 year under the provisions of Rule 8 of Tamil Nadu Minor Mineral Concession Rules, 1959. In this regard, precise area communication has been issued to

the applicant vide letter dated: 04.05.2022 with a direction to submit approved mining plan and Environment Clearance.

4. Accordingly, M/s. S.R.Enterprises had submitted 03 copies of draft Mining Plan vide letter dated: 13.06.2022 and the same has been approved vide this office letter dated: .06.2022. In addition to that the details of other quarries situated within 500 mts radial distance from the subject quarry is furnished as follows.

I. Details of Existing quarries.

Sl No	Name of the lessee	Village & Taluk	Mineral	S.F No.	Extent in Het	GO No.& Date	Lease period.
	---------- Nil ----------						

II. Details of abandoned/Old quarries.

Sl. No.	Name of the lessee	Village	S.F No.	Extent in Het	GO No.& Date	Lease period.
1.	M/s. R.A.Blue Metals, No. 50, Radhalakshmi Nilaya, Devasandra Main Road, Bangalore -560036	Venkatesapuram Village, Shoolagiri Taluk.	86 (Part-4)	4.00.0	Rc.No. 68/2016/Mines Dated: 10.08.2016	22.08.2016 to 21.08.2021.
2.	Thiru.P.Selvaraju, S/o. Periyasamy, No. 57 – B-1, Kalliyannan Nagar, Kumarapalayam, Thiruchengodu, Namakkal District.	Venkatesapuram Village, Shoolagiri Taluk.	86 (Part-6)	2.50.0	Rc.No. 69/2016/Mines Dated: 13.10.2016	17.10.2016 to 16.10.2021.
3.	Thiru. J.Shanmugam, S/o. Jaganathan, M/s. S.S.Blue metals, No.4, Pillaiyar Koil Street, Marandahalli Post, Palacode taluk, Dharmapuri District.	Venkatesapuram Village, Shoolagiri Taluk.	86 (Part-7)	2.50.0	Rc.No. 70/2016/Mines dated: 28.09.2016.	03.10.2016 to 02.10.2021

III. Details of Proposed quarries

Sl No	Name of the lessee	Village & Taluk	Mineral	S.F No.	Extent in Het	GO No.& Date	Lease period.
1.	S.R.Enterprises, No. 25, Shanthi nagar, west 2nd cross, Hosur Taluk, Krishnagiri District.	Venkatesa puram Village, Shoolagiri Taluk.	Rough Stone	86 (Part-3)	2.00.0	Rc.No. 546/2022/ Mines Dated: 04.05.2022	Instant Proposal (Precise area given)
2.	Thiru. B.Elavarasan, S/o. Baskaran, D.No. 3/83, T.Thurinjihalli village, Thenkaraikottai post, Pappireddipatti taluk, Dharmapuri District.	Venkatesa puram Village, Shoolagiri Taluk.	Rough Stone	86 (Part-5)	4.20.0	Rc.No. 1260/2018/ Mines Dated: 02.01.2018	Precise area given
3.	Thiru.A.Brian Balachander, S/o. Antony Richard Bhaskar, D.No. 2/29, 1st main road, padi, Thiruvallur, Chennai 600 050.	Venkatesa puram Village, Shoolagiri Taluk.	Rough Stone	86 (Part-1)	2.50.0	Rc.No. 544/2022/ Mines dated: 04.05.2022	Precise area given

Deputy Director,
Dept of Geology and Mining,
Krishnagiri.

29/6/22

Copy to :-

The Chairman,
Tamil Nadu State Environment
Impact Assessment Authority,
3rd Floor, Panakal Maligai,
No. 1 Jeenes Road, Saidapet, Chennai -15.

ANNEXURE - V

EXISTING PIT DIMENSION LETTER & REVISED MINING PLATES

From

Dr. S.Vediappan, M.Sc.,Phd.,
Deputy Director,
Dept of Geology and Mining,
Krishnagiri.

To

M/s. S.R.Enterprises,
D.No. 25, Shanthi nagar,
West, 2nd Cross,
Hosur Taluk,
Krishnagiri – 635 109.

Roc.No.546/2022/Mines dated: 24.06.2022.

Sir,

Sub: Mines and Minerals – Rough stone - Krishnagiri District – Shoolagiri Taluk – Venkatesapuram Village- Govt Poramboke land in S.F.No. 86 (Part-3) Over an extent of 2.00.0 Hects – Rough Stone quarry lease granted to M/s. S.R.Enterprises – Quarry pit dimension details – Furnished - reg.

Ref:
1. The District Collector Krishnagiri Roc.No.546/2022/ Mines dated: 04.05.2022.
2. M/s. S.R.Enterprises, D.No. 25, Shanthi nagar, West, 2nd Cross, Hosur, Krishnagiri District . letter dated :13.06.2022 .

Kind attention is invited to the reference cited above.

2. M/s. S.R.Enterprises had been applied for quarry lease for the Rough Stone over an extent of 2.00.0 Hect in Patta land in 86 (Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District for a period of 5 years under the provisions of Rule 8 of Tamil Nadu Minor Mineral Concession Rule 1959.

3. In this regard, it is informed that, as per the available records the pit is age old pit quarried illicitly and action has already been initiated to take action against Thiru. Gopal for the illicit quarrying carried out earlier in Govt land S.F.No. 86 (part-3) of Venkatesapuram Village.

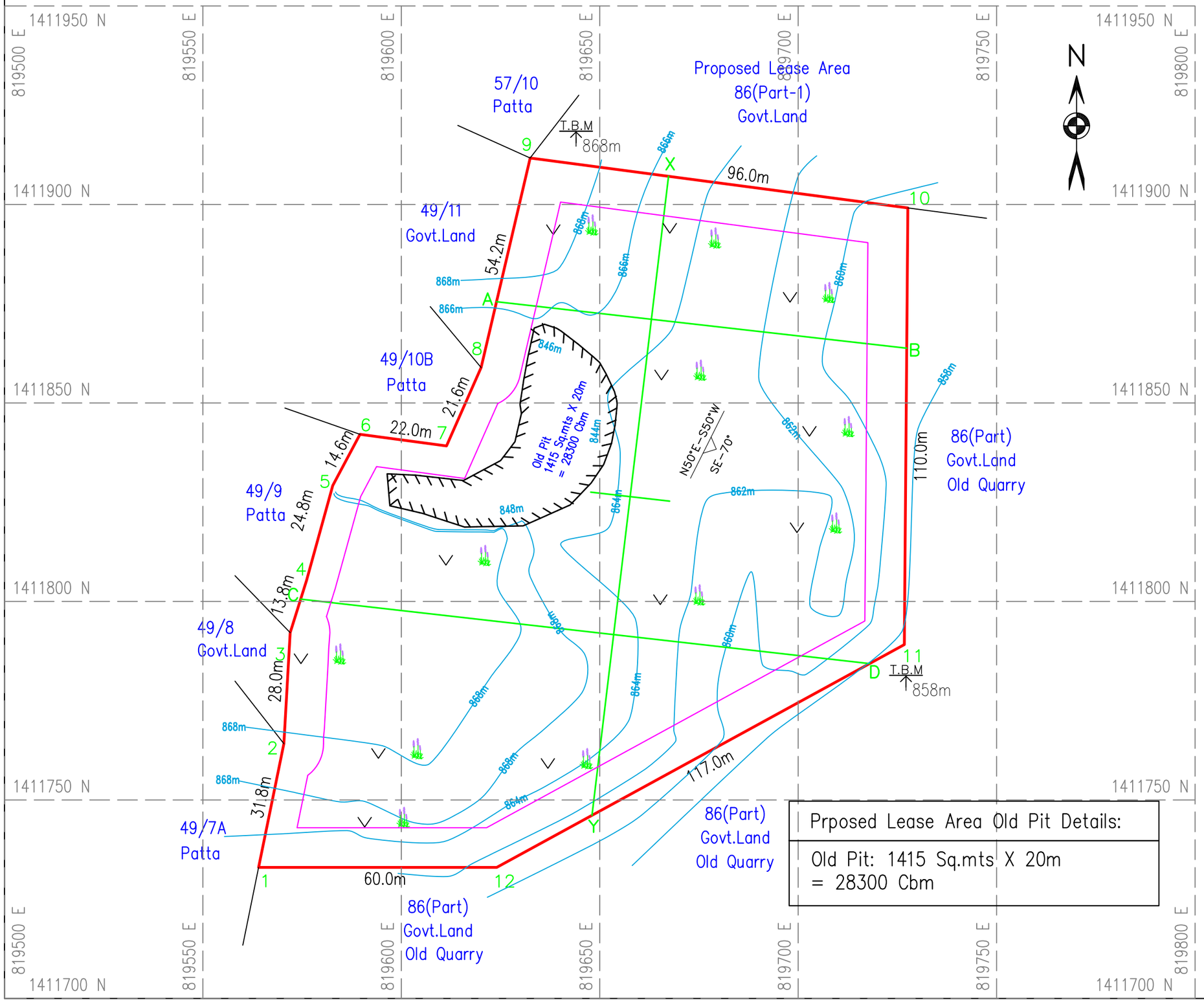
4. The pit dimension of the subject quarry to furnish the same before SEIAA in order to get Environmental Clearance as per mining plan is given as under.

Area (sq.m)	Depth (m)	Volume(cbm)
1415	20	28300

Deputy Director,
Dept of Geology and Mining,
Krishnagiri.

29/6/22

To,
The Chairman, Tamil Nadu State Environment
Impact Assessment Authority,
3rd Floor, Panakal Maligai,
No. 1 Jeenes Road,
Saidapet, Chennai -15.



Prposed Lease Area Old Pit Details:

Old Pit: 1415 Sq.mts X 20m
= 28300 Cbm

PLATE NO:III

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- OLD PIT
- CONTOUR LINE (868.0M)
- STRIKE & DIP (70°)
- QUARRY ROAD
- SHRUB

SURFACE AND GEOLOGICAL PLAN

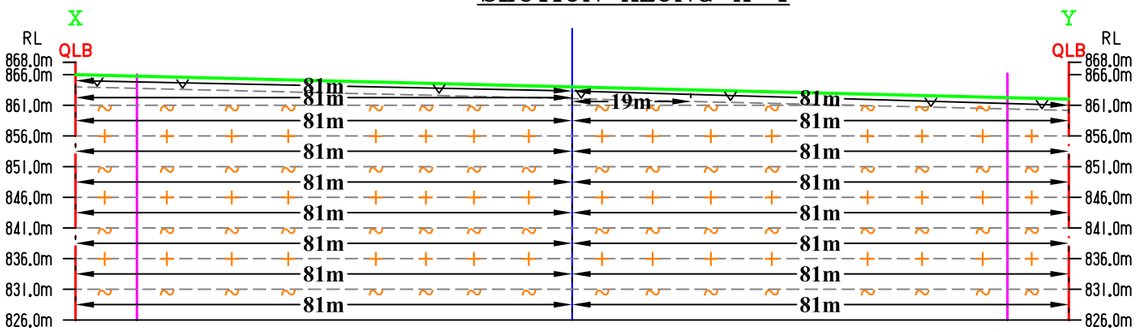
SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

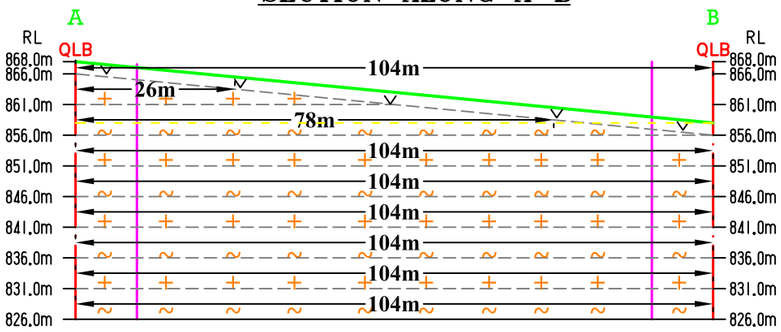
S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

SECTION ALONG X–Y



Surface Ground Level Above Height - 10m
Surface Ground Level Below Depth - 32m

SECTION ALONG A–B



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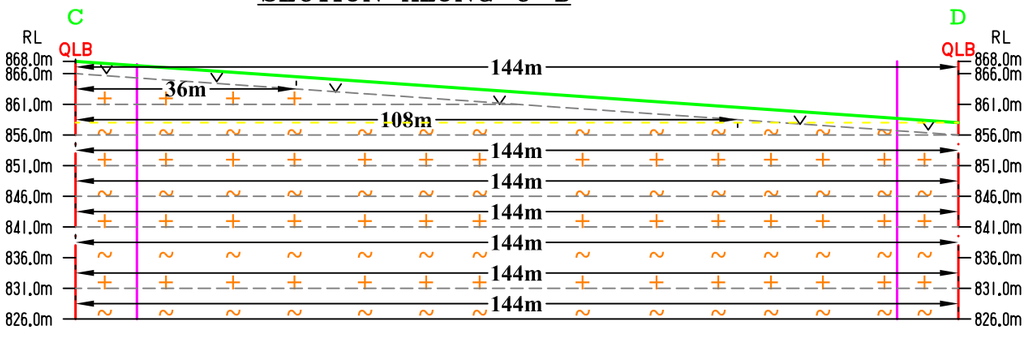

GEOLOGICAL RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Recoverable Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	81	104	2			16848
	II	81	26	5	10530	10530	
	III	81	78	5	31590	31590	
	IV	81	104	5	42120	42120	
	V	81	104	5	42120	42120	
	VI	81	104	5	42120	42120	
	VII	81	104	5	42120	42120	
	VIII	81	104	5	42120	42120	
	IX	81	104	5	42120	42120	
Total=					**294840**	**294840**	**16848**
XY-AB	I	81	144	2			23328
	II	19	36	5	3420	3420	
	III	81	108	5	43740	43740	
	IV	81	144	5	58320	58320	
	V	81	144	5	58320	58320	
	VI	81	144	5	58320	58320	
	VII	81	144	5	58320	58320	
	VIII	81	144	5	58320	58320	
	IX	81	144	5	58320	58320	
Total=					**397080**	**397080**	**23328**
GRAND Total=					**691920**	**691920**	**40176**

PLATE NO:III-A

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL (GRAVEL)
- ROUGH STONE
- OLD PIT

GEOLOGICAL SECTIONS

SCALE 1:1000

Prepared By:

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HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

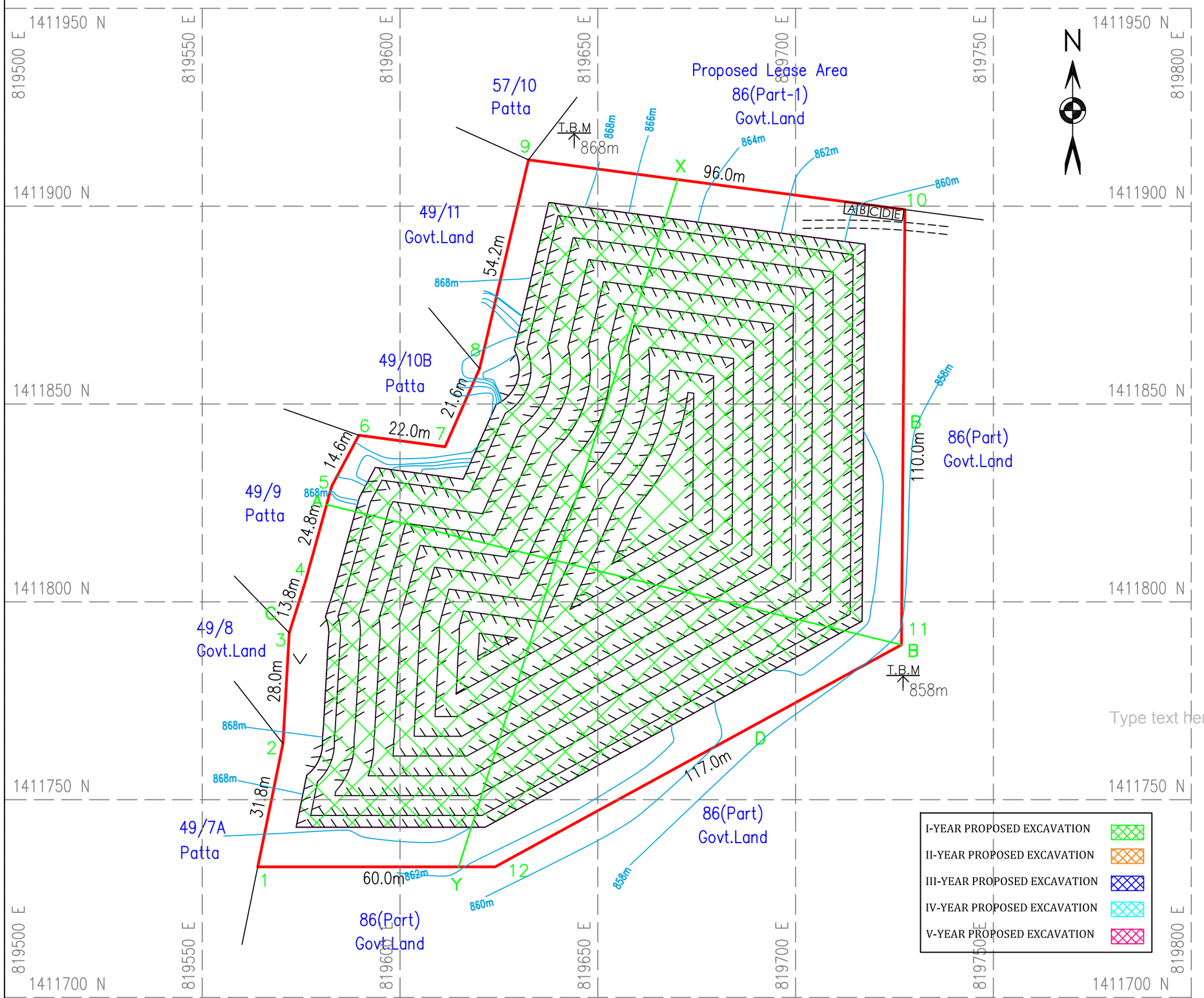


PLATE NO:IV

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- CONTOUR LINE (868.0M)
- QUARRY ROAD

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

SCALE 1:1000

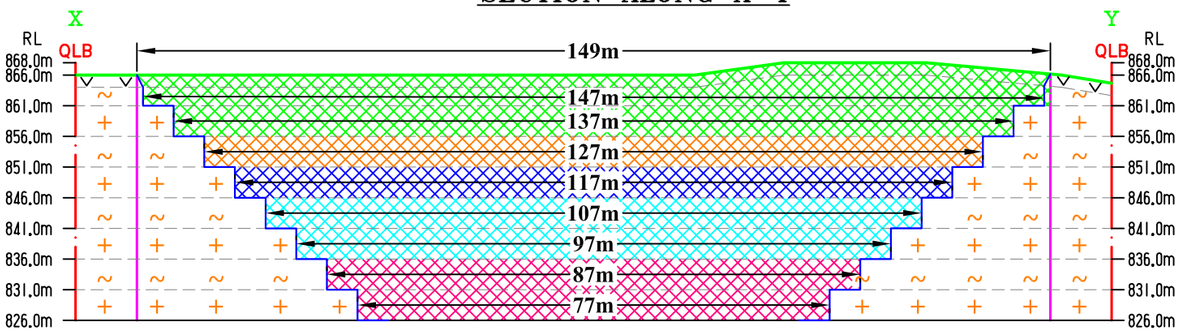
Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

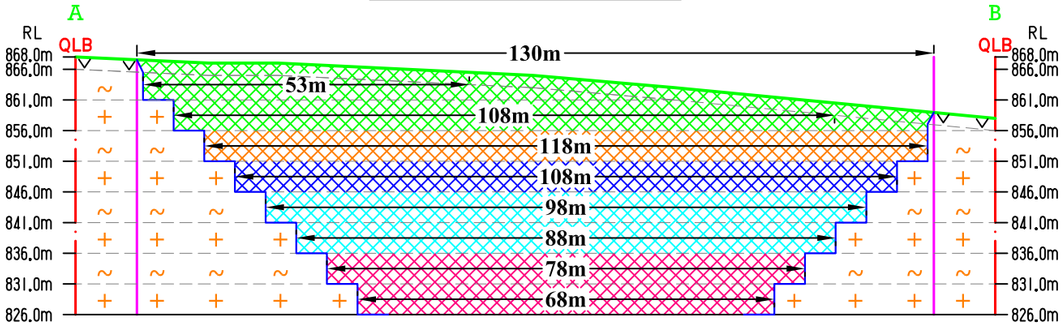
S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

Type text here

SECTION ALONG X–Y



SECTION ALONG A–B



I-YEAR PROPOSED EXCAVATION
II-YEAR PROPOSED EXCAVATION
III-YEAR PROPOSED EXCAVATION
IV-YEAR PROPOSED EXCAVATION
V-YEAR PROPOSED EXCAVATION

Surface Ground Level Above Height - 10m
Surface Ground Level Below Depth - 32m

YEARWISE DEVELOPMENT AND PRODUCTION

YEAR	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Recoverable Reserves in m3 (100%)	Top Soil (Gravel) in m3
I-YEAR	XY-AB	I	149	130	2			38740
		II	147	53	5	38955	38955	
		III	137	108	5	73980	73980	
II-YEAR		IV	127	118	5	74930	74930	
III-YEAR		V	117	108	5	63180	63180	
IV-YEAR		VI	107	98	5	52430	52430	
		VII	97	88	5	42680	42680	
V-YEAR		VIII	87	78	5	33930	33930	
		IX	77	68	5	26180	26180	
Total=						**406265**	**406265**	**38740**

PLATE NO:IV-A

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

QUARRY LEASE BOUNDARY
7.5m & 10.0m SAFETY DISTANCE
TOP SOIL (GRAVEL)
ROUGH STONE
QUARRY PIT

YEARWISE DEVELOPMENT AND PRODUCTION SECTIONS

SCALE 1:1000

Prepared By:

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S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

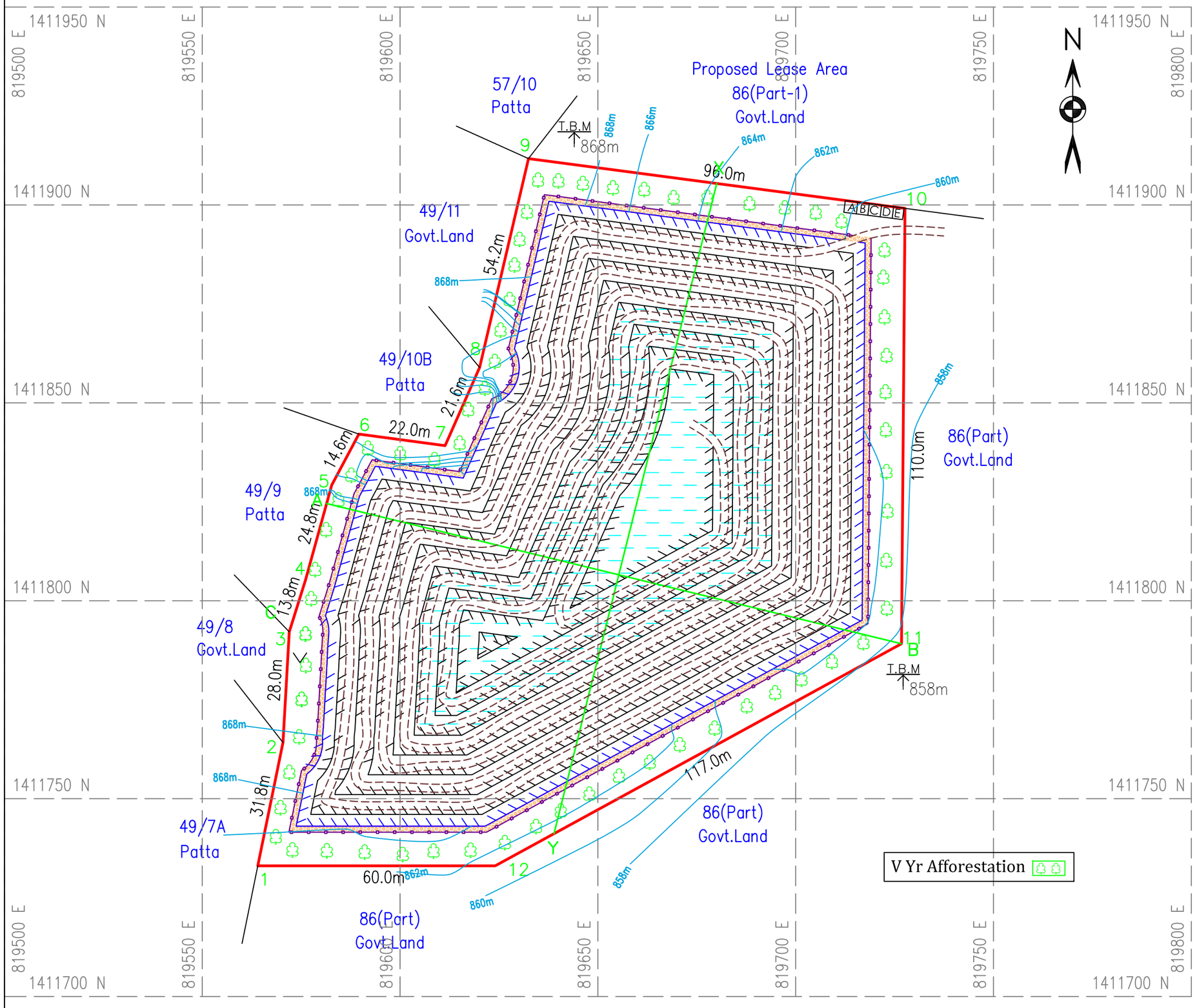


PLATE NO:VII

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- CONTOUR LINE (868.0M)
- TRUCK ROAD (QUARRY ROAD)
- FENCING
- PARAPET WALL
- ULTIMATE PIT LIMIT
- PROPOSED WATER STORAGE

CONCEPTUAL & FINAL MINE CLOSURE PLAN

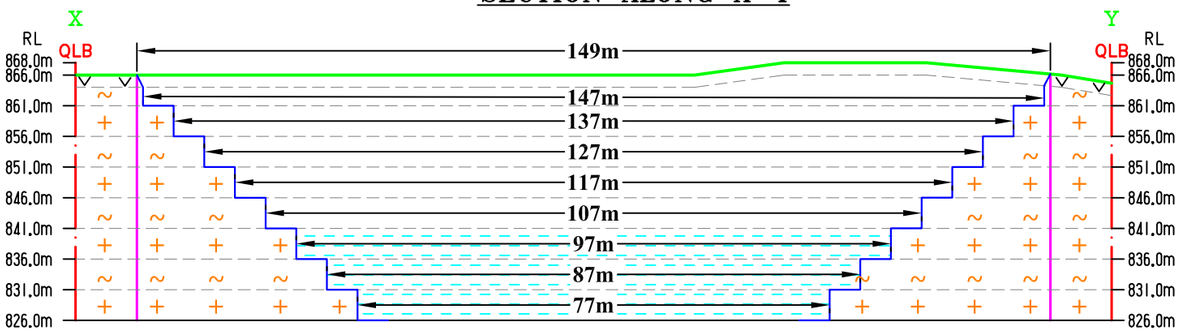
SCALE 1:1000

Prepared By:

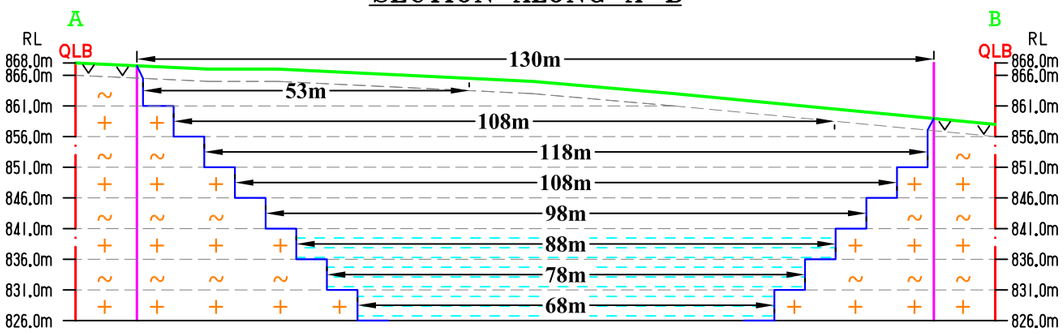
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

SECTION ALONG X–Y



SECTION ALONG A–B



Surface Ground Level Above Height - 10m
Surface Ground Level Below Depth - 32m

ULTIMATE PIT DIMENSION
= 149.0m(L) X 130.0m(W) X 42.0m(D)

MINABLE RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Recoverable Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	149	130	2			38740
	II	147	53	5	38955	38955	
	III	137	108	5	73980	73980	
	IV	127	118	5	74930	74930	
	V	117	108	5	63180	63180	
	VI	107	98	5	52430	52430	
	VII	97	88	5	42680	42680	
	VIII	87	78	5	33930	33930	
	IX	77	68	5	26180	26180	
Total=					**406265**	**406265**	**38740**

PLATE NO:VII-A

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- ULTIMATE PIT SLOPE
- PROPOSED WATER STORAGE

CONCEPTUAL & FINAL
MINE CLOSURE SECTIONS

SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

ANNEXURE-VI MINING PLAN REPORT & PLATES

MINING PLAN

FOR

GRANT OF ROUGH STONE QUARRY LEASE IN

GOVERNMENT PORAMBOKE LAND

TOTAL LEASE GRANTED PERIOD 5 YEARS

PERIOD OF MINING 5 YEARS

(Prepared Under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As Per Amendment Under Rule 41 & 42)

LOCATION OF THE APPLIED AREA

EXTENT : 2.00.00 Ha.
S. F. No. : 86(PART-3).
VILLAGE : VENKATESAPURAM.
TALUK : SHOOLAGIRI.
DISTRICT : KRISHNAGIRI.
STATE : TAMIL NADU.

APPLICANT

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI - 635 109.

PREPARED BY

S.MATHAN PRAKASH,M.Sc., M.Phil.,
RQP/CNN/270/2016/A,
No.2/274, EAST STREET,
KULASEKARANALLUR POST,
OTTAPIDARAM TALUK,
THOOTHUKUDI DISTRICT – 628 401.
Email: geomathanprakash@gmail.com
CELL : 8668020217.

PHGR

CONTENTS

RMCR

ANNEXURES

Sl. No.	Description	Annexure No.
1.	Precise Area Communication letter	I
2.	Copy of Krishnagiri District Gazette	II
3.	Copy of DFO letter	III
4.	Copy of FMB & Combined Sketch	IV-A & B
5.	Copy of Adangal & 'A' Register	V
6.	Copy of Partnership Deed	VI
7.	Copy of Partners ID Proof	VII
8.	Copy of RQP Certificate	VIII
9.	Copy of Applied Lease Area Photos	IX

PL1 GR

LIST OF PLATES

Sl. No.	Description	Plate No.	Scale
1.	Location Plan	I	Not to Scale
2.	Route Map	IA	Not to Scale
3.	Topo Sheet Map	IB	1:50,000
4.	Satellite Image (500m Radius)	IC	1:5000
5.	Mine Lease Plan	II	1:1000
6.	Surface & Geological Plan	III	1:1000
7.	Geological Sections	III-A	1:1000
8.	Year Wise Development And Production Plan	IV	1:1000
9.	Year Wise Development And Production Sections	IV- A	1:1000
10.	Mine Layout, Land Use Pattern and Afforestation Plan	V	1:1000
11.	Environment Plan	VI	1:5000
12.	Conceptual/Final Mine Closure Plan	VII	1:1000
13.	Conceptual/Final Mine Closure Sections	VII- A	1:1000
14.	Conceptual Plan Common Boundary	VIII	1:1000
15.	Conceptual Sections Common Boundary	VIII- A	1:1000
16.	Progressive Mine Closure Plan	IX	1:1000

RM GR

M/s. S.R. ENTERPRISES,
D.No.25, Shanthi Nagar,
West, 2nd Cross,
Hosur Taluk,
Krishnagiri District - 635 109.

துணை இயக்குநர் அலுவலகம்
29 JUN 2022
கிருஷ்ணகிரி
புவியியல் மற்றும் சுரங்கத்துறை

CONSENT LETTER FROM THE APPLICANT

I hereby give my consent for preparing the Mining Plan in respect of **Rough Stone** quarry over an extent of **2.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.86(Part-3)** of **Venkatesapuram** Village, **Shoolagiri** Taluk, **Krishnagiri** District, Tamil Nadu State has been prepared by Shri. **S. Mathan Prakash,** Recognized Qualified Person.

I request the Deputy Director, Department of Geology and Mining, KRISHNAGIRI District to make further correspondence regarding the Mining Plan with the said Recognized Qualified Person on this following address.

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CNN/270/2016/A
No.2/274, East Street,
Kulasekaranallur Post,
Ottapidaram Taluk,
Thoothukudi District - 628 401.
E-Mail: geomathanprakash@gmail.com
Cell: 86680-20217

I hereby undertake that all modifications so made in the Mining Plan by the Recognized Qualified Person may be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respects.

For **M/s. S.R. Enterprises,**

PLGR

Signature of the Applicant

Place: Krishnagiri

Date:

PLGR

M/s. S.R. ENTERPRISES,
D.No.25, Shanthi Nagar,
West, 2nd Cross,
Hosur Taluk,
Krishnagiri District - 635 109.

DECLARATION

I hereby declare that the Mining Plan in respect of **Rough Stone** quarry over an extent **2.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.86(Part-3)** of **Venkatesapuram** Village, **Shoolagiri** Taluk, **Krishnagiri** District, and Tamil Nadu State has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.

For **M/s. S.R. Enterprises,**

PLGR

Signature of the Applicant

Place: Krishnagiri

Date:

PLGR

S.MATHAN PRAKASH,M.Sc.,M.Phil.,
RQP/CNN/270/2016/A

No.2/274, East Street,
Kulasekaranallur Post,
Ottapidaram Taluk,
Thoothukudi-628 401.
Cell: 86680 20217

CERTIFICATE

This is to certify that, the provisions of Minor Minerals Conservation and Development Rules, 2010 (MMCDR) have been observed in the Mining Plan for the grant of **Rough Stone** quarry lease over an extent of **2.00.00Hectares** of **Government Poramboke Land** in **S.F.No.86(Part-3)** of **Venkatesapuram** Village, **Shoolagiri** Taluk, **Krishnagiri** District, Tamil Nadu State obtained by **M/s. S.R. Enterprises** for applied quarry lease.

Wherever specific permission / exemptions / relaxations or approvals are required, the applicant will approach the concerned authorities of State and Central Governments for granting such permissions etc.

Certified

Signature of Recognized Qualified Person.

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CNN/270/2016/A

Place: Thoothukudi

Date:

PMGR

S.MATHAN PRAKASH, M.Sc.,M.Phil.,
RQP/CNN/270/2016/A

No.2/274, East Street,
Kulasekaramanthai Post,
Ottapidaram Taluk,
Thoothukudi - 628 401.
Cell: 99680 20217

CERTIFICATE

This is to certify that during preparation of Mining Plan for **Rough Stone** quarry over an extent of **2.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.86(Part-3)** of **Venkatesapuram** Village, **Shoolagiri** Taluk, **Krishnagiri** District, Tamil Nadu State for **M/s. S.R. Enterprises** covers all the provisions of Mines Act, Rules, and Regulations etc made there under and whenever specific permission are required, the applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

Certified

Signature of Recognized Qualified Person.

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CNN/270/2016/A

Place: Thoothukudi

Date:

RHGR

MINING PLAN FOR MINOR MINERALS

ROUGH STONE QUARRY

TOTAL LEASE GRANTED PERIOD 5 YEARS

PROPOSED PERIOD OF MINING 5 YEARS

Over an extent of 2.00.00 Hectares of Government Poramboke Land in S.F. No.86(Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State.

(Prepared Under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As Per Amendment Under Rule 41 & 42)

1.0 INTRODUCTION AND EXECUTIVE SUMMARY:

1. **M/s. S.R. ENTERPRISES,** office at D.No.25, Shanthi Nagar, West, 2nd Cross, Hosur Taluk, Krishnagiri District- 635 109 has applied for the grant of quarry lease to quarry **Rough Stone** over an extent of **2.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.86(Part-3)** of **Venkatesapuram** Village, **Shoolagiri** Taluk, **Krishnagiri** District of Tamil Nadu State for a period of Five Years under Tender cum Auction.
2. The Applicant has been the Successful **HIGHEST BIDDER** for an **Amount Rs.3,23,00,000/-** in a tender cum Auction conducted by the Government of Tamilnadu notified vide Gazette No.15 dated 14.03.2022 and Precise area had been given for the proposed grant of Rough Stone quarry lease to **M/s. S.R. Enterprises** over an extent of 2.00.00 hectares in Government Poramboke land in S.F.No.86(Part-3) of Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District of Tamil Nadu State for a period of **Five Years** Vide Letter **Rc.No.546/2022/Mines dated 04.05.2022** and directed to submit the approved Mining Plan and Environmental Clearance certificate from the State Environment Impact Assessment Authority (SEIAA) for the grant of quarry lease for the applied area.
3. Accordingly, Mining Plan is prepared under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As per Amendment under Rule 41 & 42 by incorporating the conditions imposed in the precise area communication letter and by incorporating all the details proposed in the letter to obtain Environmental clearance from State Environment Impact Assessment Authority.
4. In the above circumstances the Mining Plan has been prepared for the Applicant **M/s. S.R.Enterprises** for approval and subsequent submission of Form-I and pre Feasibility report to obtain environmental clearance from the SEIAA of Tamil Nadu.

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CHN/270/2016/A

5. This Mining Plan is prepared for the applied Rough Stone Quarry for the period of Five years by considering the TNMMCR 1959 and as per the EIA Notification 2006 and subsequent amendments and judgements.

6. The Geological Reserves is estimated as **893592M³**★and Mineable Reserves and recoverable reserves is estimated as **544243M³** of **Rough Stone** after leaving necessary safety distance from the lease boundary as indicated in the precise area communication letter and relevant mining laws in force.

7. The proposed production scheduled for the five years about **544243M³** of **Rough Stone**. Proposed average annual production of Rough stone **108849M³**.

8. Estimated Life of the Quarry

Total Mineable ROM	= 544243 m³
Mineable Reserves @ 100%	= 544243 m³
Average production per year	=108849m³
Estimated Life of the Quarry	= 544243/ 108849 = 5.0 years

Life = 5.0 years

The Life of mine may change depend upon the prospecting results, rate of production and the extent of mechanization done by the applicant in near future.

9. Environmental measures to be adopted shall be,

i) Dust Control at source while drilling and Proposed Control Blasting,

ii) Dust suppression at loading point and transport haul roads,

iii) Noise Control in Proposed Control Blasting, control of fly rock missiles and vibration by doing peak particle velocity within standard as prescribed by the DGMS and MoEF.

iv) Unnecessary land degradation should be avoided or damaged land should be reclaimed or rehabilitated.

v) Avoid uneven rat hole mining and follow scientific and systematic mining by safe bench system of open cast mining.

vi) Mining near major fracture zones if any should be avoided to control ground water fluctuation in the adjacent agricultural lands.

vii) Emission test of vehicles should be in stack to maintain minimum emission level of flue gases.

viii) Noise level should not exceed 80db and the vehicles should use only permitted Air Horn while on road near residential areas.

ix) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly adhered to.

x) And any other conditions as stipulated by the concerned authorities should be followed to protect the environment.

2.0 EXECUTIVE SUMMARY:

a.	Name of the Village	:	Venkatesapuram
b.	Name of the Panchayat / Union	:	Venkatesapuram / Shoolagiri
c.	The proposed total Mineable Reserves	:	**544243M³**
d.	The proposed quantity of reserves (level of production) for **Five Years** to be mined is (Recoverable reserves)	:	**544243M³**
e.	Total extent of the area	:	**2.00.00 Ha.**
f.	Proposed Period of mining	:	**Five years**
g.	Proposed Depth of mining	:	Mining Reserves Calculated upto **51m** - Top Soil **2.0m** + Rough stone **49m**. (Surface Ground Level Above height is **10m** and Surface Ground Level Below Depth is **41m**).
h.	Existing Pit Dimension		**1415 Sq.mts X 20m = 28300 Cbm**
i.	Average production per year	:	**108849M³**
j.	Method of mining / level of mechanization	:	Opencast, Semi-mechanized Mining with a bench height of **7m** and bench width of **5m** is proposed.
k.	Types of Machineries used in the quarry	:	i) Compressor with jack hammer. ii) Excavator of 0.90Cbm bucket Capacity.
l.	Cost of the Project a. Fixed Cost b. Operational Cost c. EMP Cost	 : : :	 Rs.3,25,90,000/- Rs.30,00,000/- Rs.3,45,000/-
m.	The area applied for lease is bounded by four corners and the coordinates are	:	Toposheet No. **57 – H/14**

	Latitude	:	**12° 45' 19.41"N to 12° 45' 14.07"N**
	Longitude	:	**77° 56' 40.17"E to 77° 56' 34.69"E**
	North East	:	12° 45' 19.41" N 77° 56' 40.17"E
	South East	:	12° 45' 15.83" N 77° 56' 40.10"E
	North West	:	12° 45' 18.14" N 77° 56' 36.60"E
	South West	:	12° 45' 15.08" N 77° 56' 34.91"E

3.0 GENERAL INFORMATION:

3.1	a.	Name of the Applicant	:	**M/s. S.R. Enterprises,**
	b.	Address of the Applicant with phone No and e-mail id if any	:	**M/s. S.R. Enterprises,** D.No.25, Shanthi Nagar, West, 2nd Cross, Hosur Taluk, Krishnagiri District - 635 109.
	c.	Status of the Applicant	:	Partnership firm
3.2	a.	Mineral Which the applicant intends to mine	:	Rough Stone
	b.	Precise area communication letter No.	:	**Rc. No.546/2022/Mines dated 04.05.2022**
	c.	Period of permission	:	5 Years
	d.	Name and Address of the Recognized Qualified Person preparing the Mining Plan	:	**S.Mathan Prakash,** RQP/CNN/270/2016/A No.2/274, East Street, Kulasekaranallur Post, Ottapidaram Taluk, Thoothukudi District - 628 401. Email: geomathanraj@gmail.com
	e.	RQP Regn. No.	:	RQP/CNN/270/2016/A Valid up to 09.02.2026.

4.0 LOCATION:

a. Details of the Area:

State	District	Panchat / Union	Taluk	Village	S.F.No.	Extent in Ha.
Tamilnadu	Krishnagiri	Venkatesapuram / Shoolagiri	Shoolagiri	Venkatesapuram	86 (Part-3)	2.00.00
TOTAL =						**2.00.00**

b.	Classification of the Area (Ryotwari / poramboke / others)	:	It is a Government Poramboke land, which is not fit for vegetation/cultivation.
c.	Ownership / Occupancy of the Applied Lease area (Surface rights)	:	It is a Government Poramboke land. The applicant had been given precise area for the proposed grant of Rough Stone Quarry Lease.
d.	Toposheet No. with Latitude and Longitude	: : :	**Toposheet No. 57 – H/14** **12° 45' 19.41"N to 12° 45' 14.07"N** **77° 56' 40.17"E to 77° 56' 34.69"E**
e.	Existence of Public Road / Railway line if any nearby the area and approximate distance	:	Krishnagiri - Shoolagiri = 28.0 Kms Shoolagiri – Settipalli = 8.6 Kms Quarry site is located in Northwestern side at a distance of 4.8 km. from Settipalli village.

PART - A

5.0 GEOLOGY AND MINERAL RESERVES:

5.1	a.	Topography: 1. The area applied for quarry lease is almost hilly terrain area sloping towards Southeast covered with Rough Stone which does not sustain any type of vegetation. The altitude of the area is Maximum 868m and Minimum 858m above MSL. 2. No major river is found nearby the lease area. 3. Water table is noticed at a depth of **95m** from the below surface in the adjacent open wells and bore wells of the area. 4. Temperature of the area is reported to be 18^0C to a maximum of 38^0C during summer. 5. Rainfall of this area is about 800mm to 900 mm during the monsoons in a year.		
	b.	Infrastructures nearby the applied Lease area.		
		1. Post Office	:	Shoolagiri – 18.5 Kms
		2. Police Station	:	Shoolagiri – 18.9 Kms
		3. G.H	:	Shoolagiri – 17.3 Kms
		4. Fire service	:	Hosur – 21.6 Kms
		5. Railway Station	:	Hosur – 17.0 Kms
		6. School	:	Venkatesapuram – 1.0 Kms
		7. Airport	:	Bangalore – 45.0 Kms
		8. Seaport	:	Chennai – 306.0 Kms

	c.	Regional Geology	:	**KRISHNAGIRI** District is underlined by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the District are Archaean rocks like Gneisses, Granites, Charnockite basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite. The generalized stratigraphic succession of the geological formations met within this District is as follows.

	Age	Rock Formation
1.	Recent to Sub recent	Soil, Alluvium
2.	Archaean	Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites

	d.	Geology of the Lease Area		1. The area is mainly composed of Archaean crystalline metamorphic complex. 2. The rock type noticed in the area for lease is **Granite Gneiss** which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Granite Gneiss is part of peninsular Gneisses, a high grade metamorphic rock. 3. The general trend of formation is N50°E – S50°W and dip towards SE-70^0. The general geological succession of the area is given as under.

	Age	Rock Formation
1.	Recent to Sub recent	Soil, Alluvium
2.	Archaean	Charnockites
3.	Archaean	Peninsular Gneiss, and Calc Gneiss

5.2		Details of Exploration already carried out if any	:	Since the **Rough Stone** is seen from the Surface itself, no exploration is needed. However, the area was personally examined by the Geologist who prepared the Mining Plan.

5.3	a.	Already excavated pit dimensions		1415 Sq.mts X 20m(Depth) =28300 Cbm

b. **GEOLOGICAL RESERVES:**

Top Soil (Gravel):

The Thickness of Top soil(Gravel) in this area is 2.0m and the total volume of topsoil (gravel) will be **40176m^3**.

Rough Stone :

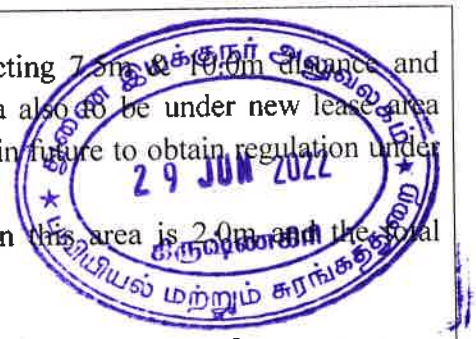
The Geological Reserve is estimated as **893592m^3** respectively, at the rate of 100% Recovery upto the permissible depth. The Geological reserve of Rough stone and Top soil(Gravel) is calculated upto **51m(2m** top soil(gravel) + **49m** Rough Stone). Surface Ground Level Above height is 10m and Surface Ground Level Below depth is 41m.

GEOLOGICAL RESERVES

Section	Bench	L (m)	W (m)	D (m)	Volume (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) Cu.m.
XY-AB	I	81	104	2			16848
	II	81	39	7	22113	22113	
	III	81	104	7	58968	58968	
	IV	81	104	7	58968	58968	
	V	81	104	7	58968	58968	
	VI	81	104	7	58968	58968	
	VII	81	104	7	58968	58968	
	VIII	81	104	7	58968	58968	
Total=					**375921**	**375921**	**16848**
XY-CD	I	81	144	2			23328
	II	81	49	7	27783	27783	
	III	81	144	7	81648	81648	
	IV	81	144	7	81648	81648	
	V	81	144	7	81648	81648	
	VI	81	144	7	81648	81648	
	VII	81	144	7	81648	81648	
	VIII	81	144	7	81648	81648	
Total=					**517671**	**517671**	**23328**
GRAND Total=					**893592**	**893592**	**40176**

c. **MINEABLE RESERVES:**

The Mineable reserves are calculated by deducting 7.5m & 10.0m distance and Bench Loss. In this regard, since the adjacent area also to be under new lease area action will be taken to get permission from DGMS in future to obtain regulation under (111)3 of MMR.1961.



Top Soil (Gravel): The Thickness of Top soil in this area is 2.0m and the total volume of topsoil(gravel) will be **38740m^3**.

Rough Stone :

The mineable reserves and the recoverable reserves are **544243m^3** respectively, at the rate of 100% Recovery upto the permissible depth. The Mineable reserve of Rough stone and Top soil(Gravel) is calculated upto **51m(2m** top soil(gravel) + **49m** Rough Stone). Surface Ground Level Above height is 10m and Surface Ground Level Below depth is 41m.

MINEABLE RESERVES

Section	Bench	L (m)	W (m)	D (m)	Volume (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) Cu.m.
XY-AB	I	149	130	2			38740
	II	147	69	7	71001	71001	
	III	137	123	7	117957	117957	
	IV	127	113	7	100457	100457	
	V	117	103	7	84357	84357	
	VI	107	93	7	69657	69657	
	VII	97	83	7	56357	56357	
	VIII	87	73	7	44457	44457	
Total=					**544243**	**544243**	**38740**

6.0 MINING:

6.1	Method of Mining	:	1. Opencast method of semi mechanized mining is adopted to extract Rough Stone. 2. Machineries like Tractor mounted compressor attached with Jack hammers is being used to drilling and Proposed Control Blasting. Excavators are operated for quarrying of Rough Stone and Tippers / Lorries are used for transportation of Rough Stone to the destination.
6.2	Mode of Working	:	It is a semi mechanized quarrying operation using shot hole drilling with the help of compressor and jack hammers, smooth blasting. Rough Stone are removed using Hydraulic excavator and loaded directly to the tippers and transported to the nearby end users.

6.3	Proposed bench height & Width	:	Bench height = 7mts. Bench width = 5mts.
6.4	Details of Overburden / Mineral Production proposed for **Five year**	:	**Top Soil(Gravel)/ Overburden production details follows:** The entire lease area is covered 2.0m of Top Soil(Gravel) and the estimated quantity of Top soil(Gravel) is 38740m^3. Top Soil(Gravel) formation will be removed and transported to the needy end user, only after obtaining permission and paying necessary seigniorage fees to the Government.

Year wise reserves calculations :

Rough stone production details as follows:

The proposed rate of production of **Rough Stone** is about **544243m^3** for five years. The average proposed rate of production of **Rough Stone** is about **108849m^3** per year at the rate of 100% recovery upto the permissible depth. Reserves Calculated upto **51m(2m** top soil(gravel) + **49m** Rough Stone). Surface Ground Level Above height is 10m and Surface Ground Level Below depth is 41m.

Proposed Production of five Years.

YEARWISE DEVELOPMENT AND PRODUCTION

YEAR	Section	Bench	L (m)	W (m)	D (m)	Volume (m3)	Recoverable Reserves m3 (100%)	Top Soil (Gravel) m3
I-YEAR	XY-AB	I	149	130	2			38740
		II	147	69	7	71001	71001	
		III	137	123	7	117957	117957	
II-YEAR		IV	127	113	7	100457	100457	
III-YEAR		V	117	103	7	84357	84357	
IV-YEAR		VI	107	93	7	69657	69657	
V-YEAR		VII	97	83	7	56357	56357	
		VIII	87	73	7	44457	44457	
Total=						**544243**	**544243**	**38740**

6.5	a.	Mining	:	Drilling of shot holes will be carried out using compressor and jack hammer. Depth of holes shall be 1 to 2m bench height and spacing shall be 0.75m and burden shall be 0.60m from the preface. Details of drilling equipments are given below.

Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P.
Jack Hammer	4	25.5 mm	Hand held	Atlas copco 2Nos	Diesel	60

	b.	Loading	:	Loading of waste and rough stone shall be carried out by 10 tonne capacity tippers from the working place periodically. Details of loading equipment are given as under.

Type	Nos	Bucket Capacity (MT)	Make	Motive power	H.P.
Hydraulic excavator	1	1.2 M^3	L&T or Ex200	Diesel	120

	c.	Transportation	:	Transport of raw materials and waste shall be done by Tipper of 10 M.T. capacity

Type	Nos	Size / Capacity	Make	Motive power	H.P.
Tipper	2	10 M.T	Ashok Leyland	Diesel	110

d. **Energy:**

Electricity for mines and lights only at nights (working is restricted on day time only between 9Am to 5Pm). Diesel (HSD) will be used for quarrying machines around **441848 litres** of HSD will be used for the entire project life. Diesel will be brought from nearby diesel pumps. No power is required for the project. Lightings on the night will be taken from nearby electric poles after obtaining permission from concerned authorities.

For Top soil(Gravel):

Per hour excavator will consume = 10 litres / hour

Per hour excavator will excavate = 60m^3 of Top soil(Gravel)

For 38740m^3 = 38740/60 = 645.6 hours

Diesel consumption 645.6 working hours = 645.6 x 10 litres

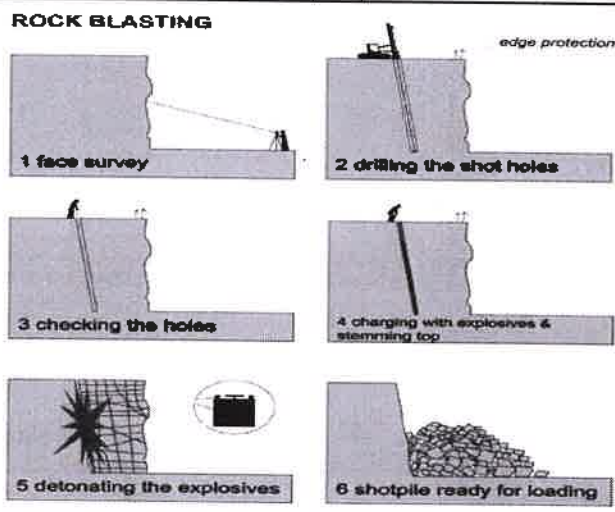
Total diesel consumption = **6456 litres of HSD will be utilized for Top Soil(Gravel)**

		For Rough stone: Per hour excavator will consume = 16 litres / hour Per hour excavator will excavate = 20m³ of rough stone For 544243m³ = 544243/20 = 27212 hours Diesel consume 27212 working hours = 27212 hours x 16 litres Total diesel consumption = **435392 litres of HSD will be utilized for Rough Stone.** **Total diesel consumption is around (Top soil (Gravel) 6456 Litres + Rough Stone 435392 Litres) = 441848 litres of HSD for the entire period of life**		
6.6		Disposal of Overburden	:	The estimated quantity of Top soil(Gravel) is **38740m³**. Top Soil(Gravel) formation will be removed and transported to the needy end user, only after obtaining permission and paying necessary seigniorage fees to the Government.
6.7		Brief Note on Conceptual Mining Plan for the entire lease period	:	Conceptual Mining Plan is prepared with an object of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, etc., Average Ultimate Pit dimension in given as Under, ULTIMATE PIT DIMENSIONS 149.0m(L) X 130.0m(W) X 41.0m(D) Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc. Afforestation has been proposed on the boundary barrier by planting trees. All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms.

7.0 BLASTING:

7.1	Proposed Control Blasting Pattern	:	The massive formation shall be broken into pieces of portable size by drilling and Proposed Control Blasting using jack hammers and shot hole Blasting. Powder factor of explosives for breaking such hard rock shall be in the order of 6 to 7 tonnes per K.g of explosives. **Proposed Control Blasting** parameters are as follows.

Diameter of the hole	:	32-36 mm
Spacing	:	60 Cms
Depth	:	1 to 1.5m
Charge / Hole	:	D.Cord with water or 70 gms of gun powder or Gelatine.
Pattern of hole	:	Zig Zag
Inclination of hole	:	70^0 from the horizontal.
Quantity of rock broken	:	0.45 MT x 2.6 = 1.17 MT
Control Blasting efficiency @ 90%	:	1.17 x 90% = 1.05MT / hole
Charge per hole	:	140 gms of 25mm dia cartridge
Quantity of rock broken per day	:	362.8M^3.



7.2	Types of Explosives	:	Following explosives are recommended for efficient Proposed Control Blasting with safe practice.

S. No	Description	Class / Division	Type	Size
1.	Slurry	Class - 3	Nitro Compound	25 x 200
2.	Detonators	Class - 3	Ordinary and elec (OD & ED)	6.5 x 32
3.	Safety fuse	Class - 6	Blue sump fuse coils of 10mts each	

7.3	Measures proposed to minimize ground vibration due to Proposed Control Blasting	:	The following steps shall be adopted to control ground vibration due to Proposed Control Blasting. 1. The minimum recommended delay time of 8ms was introduced to minimize ground vibration to avoid constructive interference of blast vibration waves and hence its impact or amplitude. 2. In case of electronic detonators, which are inherently much more accurate delays (+/- 0.2 milliseconds delay) to minimizes the ground vibration. 3. Use of Ammonium nitrate fuel oil mixture for shot holes may be avoided because which cause for high fly of rocks in view critical diameter problem. Only high strength explosives like slurry will be used in the form of cartridge. 4. Charge per hole should exceed the powder factor designed for each hole based on the quantum of Proposed Control Blasting, strength of rocks, fracture pattern etc.
7.4	Storage of Explosives and safety measures to be taken while Proposed Control Blasting.	:	1. The Applicant stores the explosives as per the Indian Explosives Act, 1958. 2. The explosives to be used in mines being a small quantity, the District collector may be approached to keep the stocks not exceeding 5kgs at time or any other quantity permitted by the concerned authorities in a portable magazine of S & B types.

			3. An authorized explosive agency is engaged to carry out blasting. 4. The blasting time in a day is between 5 PM to 6 PM. 5. First Aid Box is kept ready at all the time. 6. Necessary precautionary announcement is being carried out before the blasting operation. operation.

8.0 MINE DRAINAGE:

8.1	Depth of Water table	:	The ground water table is reported as **95m** below ground level in nearby open wells and bore wells of this area. Mining reserves calculated taken upto **51m**(Surface Ground Level Above Height 10m & Surface Ground Level Below Depth 41m). Now, proposed quarry depth is above the water table. Hence, quarrying may not affect the ground water.
8.2	Arrangement and Places where the mine water is finally proposed to be discharged	:	The ground water may not rise immediately in this type of mining. However, the rain water percolation and collection of water from the seepage shall be less than 300 lpm and it shall be pumped out periodically by a stand by diesel powered Centrifugal pump motivated with 7.5 H.P. Motor. The quality of water is potable and it is not contaminated with any hazardous things.

9.0 OTHER PERMANENT STRUCTURES:

9.1	Habitations / Village	:	There are no villages within a radius of 500m. The nearest habitations with the population is given as under.

Direction	Village	Distance in Kms	Population
North	Alnatham	2.0kms.	220
East	Athimugam	3.5kms.	370
South	Bukkasagaram	3.2kms	510
West	Thattiganapalli	5.7kms	320

9.2	Power lines (HT/LT)	:	No power line is located in the lease area.
9.3	Water bodies (River, Pond, Lake, Odai, Channel etc)	:	There is No Water bodies (River, Pond, Lake, Odai, Channel etc) located within a radius of 500m.
9.4	Archeological / Historical Monuments	:	There are no Archeological / Historical Monuments within a radius of 500m.
9.5	Road (NH, SH, Village Road etc)	:	Krishnagiri - Shoolagiri = 28.0 Kms Shoolagiri – Settipalli = 8.6 Kms Quarry site is located in Northwestern side at a distance of 4.8 km. from Settipalli village.
9.6	Places of Worship	:	There are no Places of Worship within a radius of 500m.
9.7	Reserved Forest / Forest / Social Forest / Wild Life Sanctuary etc.,	:	Distance between Reserve Forest Athimugam II and the applied area = 1.04kms Distance from Cauvery North Wild life Sanctuary, Udedurgam = 23.8 kms.
9.8	Any Interstate Border, Protected areas under the Wild Life (Protection) Act, 1972, Critically Polluted Areas as Identified by Central Pollution Control Board and Notified Eco sensitive areas	:	There are No interstate borders within a radius of 10 kms. Cauvery North Wild life Sanctuary, Udedurgam located within the distance of about 23.8 kms from the lease area.
9.9	Any Other Structures	:	Nil

10.0 EMPLOYMENT POTENTIAL & WELFARE MEASURES:

10.1		Employment Potential (Management & Supervisory personal)	:	1. As per Mines safety under the provisions of MMR, 1961 under the Mines Act, 1952, whenever the workers are employed more than 10, it is preferred to have a qualified Mining Mate to keep all the workers directly under his control and supervision. 2. The following man power is proposed for quarrying Rough Stone during the five years period to achieve the proposed production to the provisions of the Government norms.
10.2		Welfare Measures		
	a.	Drinking Water	:	Drinking water at the rate of 2Ltrs per person shall be provided as per the Mines Rules, 1960. It is proposed to make a borehole for providing uninterrupted supply of drinking water and other utilities.
	b.	Sanitary facilities	:	Semi permanent latrines & urinals shall be maintained at convenient places for use of labours as per the provisions of Rule (33) of the Mines Rules, 1960 separately for males and females. Washing facilities are also arranged as per rule (36) of the Mines Rules, 1960.
	c.	First Aid Facility	:	Being a small mine First Aid station as per provisions under Rule (44) of the Mines Rules 1960 will be provided with facilities as per the third schedule as prescribed. Qualified First Aid personnel should be appointed or nominated to attend emergency first aid treatment.

1.	Skilled	Operator	2 No.
		Mechanic	1 No.
		Blaster/Mat	1 No.
2.	Semi – skilled	Driver	2 Nos
3.	Unskilled	Musdoor / Labours	5 Nos
		Cleaners	3Nos
		Office Boy	1No
4.	Management & Supervisory staff		3No.
	Total =		18Nos

	d.	Labour Health	:	As per Mines Rule, Periodic medical examination has been arranged for occupational health once in a year in addition to attending medical treatment of occupational injuries under the Rule 45 (A) MR, 1960.
	e.	Precautionary safety measures to the Laborers	:	Safety provisions like helmet, goggles, safety shoes, Dust mask, Ear muffs etc have been provided as per the circulars and amendments made for Mine labours under the guidance of DGMS being a semi-mechanized operation. Necessary training will be conducted once in a year to all the employees with the help of qualified and experienced officers to train about the safe and system at quarrying operation.

PART – B

11.0 ENVIRONMENTAL MANAGEMENT PLAN:

11.1	Existing Land Use Pattern	:	The existing land use pattern is given as under.

Sl. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Area under quarrying	0.14.0	1.51.0
2.	Infrastructure	Nil	0.01.0
3.	Roads	0.01.0	0.01.0
4.	Green Belt	Nil	0.47.0
5.	Unutilized Area	1.85.0	Nil
	Total =	**2.00.0Ha**	**2.00.0Ha**

11.2	Water Regime	:	Water table in this area is noticed at a depth of **95m** below the surface ground level and presently, the quarrying of Rough Stone is proposed upto 51m (Surface Ground Level Above Height 10m & Surface Ground Level Below Depth 41m). It will not affect the ground water depletion of this area.
11.3	Flora and Fauna	:	Except acacia bushes, no other valuable trees are noticed in the applied lease area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.
11.4	Climatic conditions	:	Generally sub tropical climatic condition prevails throughout the year and this District receives rain both in South west and North east monsoon.

			The average rainfall is about 800mm to 900mm and the temperature ranges from 18^{0}C during winter and to a maximum of 38^{0}C during the summer.
11.5	Human Settlement	:	The nearest habitations with the population is given :

Direction	Village	Distance in Kms	Population
North	Alnatham	2.0kms	220
East	Athimugam	3.5kms	370
South	Bukkasagaram	3.2kms	510
West	Thattiganapalli	5.7kms	320

11.6	Plan for Air, Dust Suppression	:	Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc.., will be suppressed by periodical wetting of land by water spraying. For the sampling of air, high volume air sampler (Model VFC-PM10) was used (10 meter above and 5 meter away from road) and the particulates were collected on what man GFA glass fiber filters dried in a hot air oven at 105°C for 1hr and weighed. The average flow rate was about 1.1 cubic meters.
11.7	Plan for Noise Control	:	Quarrying of Rough Stone will be carried out by drilling and Proposed Control Blasting by using low power explosives, and hence, noise will be very Minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site. In order to assess the extent of noise pollution due to vehicular traffic different zones viz., Silence zone, Residential Zone, Commercial zone, Traffic signals and Industrial zones were identified in urban and suburban areas of Krishnagiri. Adequate Number of observations were made in all the selected sites by using the sound level meter (LT Lutron SL-4001).
11.8	Environmental Impact Assessment Statement Describing Impact on mining on the next five years	:	Factors to be considered for EIA are, 1. Dust generation, 2. Land degradation 3. Stabilization and vegetation of dumps 4. Adverse effect on water regime 5. Socio economic benefits arising out of Mining. 6. Noise and Vibration.

	a. Dust	:	Dust is expected to be generated from drilling, hauling roads; place of excavation etc and it will be suppressed by periodical wetting of lands.
	b. Land degradation	:	Land degradation is by means of cutting the trees and removal of fertile soil does not arise. Proposed usage of land for the next five years shall be less than **2.00.00Hz**. Afforestation will be started during the first year of mining operation itself.
	c. Stabilization and vegetation of dumps	:	The topsoil will be spread over the non-active dumps along the slope and edges to plant tree saplings to form vegetal cover over the dumps. Such vegetal cover will prevent erosion of dumps during rainy seasons.
	d. Socio economic benefits arising out of mining	:	1. To provide Employment opportunities of the nearby villagers. 2. For the cultural development of the nearby villagers.
	e. Noise and vibration	:	Since, no deep hole blasting is proposed, small dia explosives are used for breaking the hard rock and boulders, the noise and vibration will be very minimum and are within the permissible limits.
11.9	Proposal for Waste Management	:	There is no requirement for waste management as there is 100% recovery percentage.
11.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	:	The present mining is proposed to a depth of **51m** (Surface Ground Level Above height is 10m and Surface Ground Level Below depth is 41m). The mined out area will be fenced on top of open cast working with S1 fencing. Low lying areas with water logging shall be used for fish culture. No immediate proposals for closure of pit as the rough stone persist still at deeper level.
11.11	Program for Afforestation	:	Trees like tamarind, casuarinas etc will be planted along the lease boundary and avenues as well as over non active dumps at a rate 60 trees per annum with an interval of 5m. The rate of survival expected to be 80% in this area.

11.12	Proposed Financial Estimate / Budget for (EMP) Environment Management **A. Fixed Asset Cost:** Land Cost Labour Shed Sanitary Facility Fencing cost Total=	: : : : :	 Rs. 3,23,00,000/-(Leased tender amount for Government Poramboke Land) Rs. 1,40,000/- Rs. 70,000/- Rs. 80,000/- **Rs.3,25,90,000/-**
	B. Operational Cost: **Machinery cost**	: :	 **Rs.30,00,000/-**
	C. EMP Cost: 1. Drinking water facility 2. Safety kits 3. Water sprinkling 4. Afforestation 5. Water quality test 6. Air quality test 7. Noise/vibration test Total=	 : : : : : : : :	 Rs. 1,10,000/- Rs. 70,000/- Rs. 50,000/- Rs. 25,000/- Rs. 30,000/- Rs. 30,000/- Rs. 30,000/- **Rs. 3,45,000/-**
	Total Project cost(A+B+C)	:	**Rs.3,59,35,000/-**

துணை இயக்குநர் அலுவலகம் 29 JUN 2022 சுரங்கத்துறை மற்றும் சுரங்கத்துறை

12.0 MINE CLOSURE PLAN:

12.1	Steps proposed for phased restoration, reclamation of already mined out area.	:	The present mining is proposed to a calculated of **51m**(Surface Ground Level Above Height 10m & Surface Ground Level Below Depth 41m). The mined out area will be fenced on top of open cast working with S1 fencing to arrest the entry of cattle's and public in to the quarry site.
12.2	Measures to be under taken on mine closure as per Act & Rules	:	Measures will be taken as per the Acts and Rules. The quarried pit will be fenced by using Barbed wire fencing. Green belt development at the rate of 60 trees per year will be proposed.

12.3	Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area	:	The pits were already opened by earlier Quarrying. Hence, the quarrying operation will be continued in the existing pit after making proper benches within the lease area.

27 JUN 2022

13.0 ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT:

(i) Permission will be obtained from the Director of Mines Safety for the extracting the Rough Stone from the Boundary barriers and from slopes.

(ii) Care and precautionary measures will be taken for the safety of workers as per Rules and Acts.

(iii) The applicant will endeavour every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.

(iv) Accordingly, Mining Plan is prepared under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As per Amendment under Rule 41 & 42 by incorporating the conditions imposed in the precise area communication letter and by incorporating all the details proposed in the letter to obtain environment clearance from State Level Environmental Impact Assessment Authority.

(v) This Mining Plan is prepared for the Applied Rough Stone Quarry for a period of Five Years.

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CHN/270/2016/A

This Mining Plan is approved based on guidelines / instruction issued and in corporation of the particulars specified in the letter Roc. No. 546/2022 Dated 06.2022 of the Duputy Director of Geology and Mining, Krishnagiri and subject to further fulfiliment of the conditions laid down under Tamil Nadu Minor Mineral Concession Rules, 1959 and Minor Mineral Conservation and Development Rule 2010.

23.06.22

DEPUTY DIRECTOR
Geology and Mining,
Collectorate, Krishnagiri.

This Mining Plan is approved subject to the conditions / Stipulation indicated in the Mining Plan Approval

Letter Roc. No. 546/2022 Dated 06.20

Annexure -I

ந.க.எண். 546/2022/கனிமம் நாள்: 04.05.2022

புவியியல் & சுரங்கத் துறை,
மாவட்ட ஆய்சியாகம்,
கிருஷ்ணகிரி

29 JUN 2022

குறிப்பாணை

பொருள் கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண வகை கற்கள் - கிருஷ்ணகிரி மாவட்டம் அரசு புறம்போக்கு புலங்களில் அமைந்துள்ள கற்குவாரிகள் - டெண்டர் / ஏலம் முறையில் குத்தகை வழங்குவது தொடர்பாக அரசிதழ் வெளியீடு - சூளகிரி வட்டம் - வெங்கடேசபுரம் கிராமம் - புல எண்.86(பகுதி-3) 2.00.0 ஹெக்டேர் பரப்பில் 05.04.2022 அன்று டெண்டருடன் இணைந்த ஏலம் நடத்தப்பட்டது - ஏலத்தில் அதிகபட்ச குத்தகை தொகை குறிப்பிட்ட தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் என்கிற நிறுவனம் ஏலம் உறுதி செய்யப்பட்டது - விதிகளின்படி குத்தகை தொகை முழுவதும் செலுத்தப்பட்டது - குத்தகை உரிமம் வழங்கிட வேண்டி ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச் சூழல் ஆணைய முன் அனுமதி பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:

1. வட்டாட்சியர், சூளகிரி கடிதம் ந.க.எண்.51/2022/அ2 நாள்:21.01.2022.
2. வருவாய் கோட்டாட்சியர் ஓசூர் அறிக்கை ந.க.எண்.103/2022/பி2 நாள்:04.02.2022.
3. வன உயிரின காப்பாளர், ஓசூர் கடிதம் ந.க.எண்.261/2022/எவ் நாள்:10.02.2022.
4. கிருஷ்ணகிரி மாவட்ட புவியியல் மற்றும் சுரங்கத் துறை நில அளவர், தனி வருவாய் ஆய்வாளர் மற்றும் உதவி புவியியலாளர் (கனிமம்) புலதணிக்கை அறிக்கை நாள்:11.02.2022.
5. கிருஷ்ணகிரி மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.15 நாள்:14.03.2022 மற்றும் எண்.20 நாள்:28.03.2022.
6. தி இந்து செய்தி நாளிதழில் விளம்பரம் நாள்:17.03.2022.
7. தி இந்து, தினகரன், தினமலர் மற்றும் காலைக்கதிர் ஆகிய செய்தி நாளிதழ்களில் 29.03.2022 அன்று வெளியிடப்பட்ட மாவட்ட ஆட்சியரின் அறிவிக்கை.
8. திரு.ஸ்ரீகர் மற்றும் சுமுகா புளு மெட்டல்ஸ் என்பவர் டெண்டர் விண்ணப்பம் நாள்:04.04.2022.
9. தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் மற்றும் ஐந்து நபர்களின் ஏல விண்ணப்பங்கள் நாள்:05.04.2022.
10. தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் என்பவரது கடிதம் நாள்:19.04.2022.
11. தொடர்புடைய ஆவணங்கள்.

பார்வையில் காணும் கடிதங்களின்பால் கனிவான கவனம் வேண்டப்படுகிறது.

2. கிருஷ்ணகிரி மாவட்டம், சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம் அரசு புல எண்.86(பகுதி-3) விஸ்.2.00.0 ஹெக்டேர் பரப்பில் அமைந்துள்ள சாதாரண கற்குவாரியை டெண்டர் / பொது ஏலத்திற்கு கொண்டு வர உரிய நில இருப்பு அறிக்கை வருவாய் கோட்டாட்சியரிடம் கோரப்பட்டதில், சூளகிரி வட்டாட்சியர், ஓசூர் வருவாய் கோட்டாட்சியர் மற்றும் கிருஷ்ணகிரி மாவட்ட புவியியல் மற்றும் சுரங்கத் துறை நில அளவர், தனி வருவாய் ஆய்வாளர் மற்றும் உதவி புவியியலாளர் (கனிமம்) ஆகியோர் தணிக்கை மேற்கொண்டு கிருஷ்ணகிரி மாவட்டம், சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம் அரசு புறம்போக்கு தீ.ஏ.த.கரடு புல எண.86(பகுதி-3) விஸ்.2.00.0 ஹெக்டேர் பரப்பு பூமியினை குத்தகை உரிமம் வழங்கிட விதிகளின்படி மேற்கண்ட புலம் தகுதி வாய்ந்தது என்பதால் டெண்டருடன் இணைந்த ஏலத்தின் மூலம் உரிமம் வழங்கிட பரிந்துரை செய்துள்ளனர். வன உயிரின காப்பாளர், ஓசூர் மேற்கண்ட புலங்கள் விதிகளின்படி அருகில் உள்ள காப்பு காடுகளுக்கு வரையறுக்கப்பட்ட பாதுகாப்பு தொலைவிற்கு அப்பால் அமைந்துள்ளதாக அறிக்கை அளித்துள்ளார்.

3. அதன் அடிப்படையில், கிருஷ்ணகிரி மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் உள்ள சாதாரண கற்களை வெட்டியெடுத்துச் செல்ல உரிமம் வழங்க ஏதுவாக கிருஷ்ணகிரி மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.15 நாள்:14.03.2022 மற்றும் எண்.20 நாள்:28.03.2022-ன்படி பிரசுரம் செய்யப்பட்டது. அதன்படி 04.04.2022-ம் நாள் பிற்பகல் 05.00 மணிக்குள் மூடி முத்திரை இடப்பட்ட டெண்டர் மனுக்களை அளிக்க இறுதி நாளாக அறிவித்து, 05.04.2022 அன்று பொது ஏலம் நடத்தப்பட்டு டெண்டர் மனுக்கள் ஏலத்தில் கலந்து கொண்டவர்கள் முன்னிலையில் திறக்கப்பட்டன.

4. மேற்கண்ட அரசிதழில் விளம்பரம் செய்யப்பட்டிருந்த குவாரிப்பட்டியலில் வரிசை எண்.(18), சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.கரடு) புல எண்.86(பகுதி-3)-ல் 2.00.0 ஹெக்டேர் பரப்பில் உள்ள கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் ஏலத்தில் கோரிய தொகை ரூ.3,23,00,000/- மாவட்ட ஆட்சித் தலைவர் அவர்களால் நிர்ணயம் செய்யப்பட்டிருந்த ஏலத் தொகையை விட அதிகமாக இருந்ததால் அவருக்கு ஏலம் ஊர்ஜிதம் செய்யப்பட்டது. மேற்கண்ட ஏலதாரர் மொத்த குத்தகை தொகையையும் விதிகளின்படி 19.04.2022-க்குள் செலுத்தியுள்ளார்.

5. எனவே, ஏலதாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் கோரிய தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ் என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி நபருக்கு சூளகிரி வட்டம், வெங்கடேசபுரம் கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.கரடு) புல எண்.86(பகுதி-3)-ல் 2.00.0 ஹெக்டேர் பரப்பு புலத்தில் ஐந்து (05) ஆண்டுகளுக்கு

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குவாரி உரிமம் வழங்க ஏதுவாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.41-ன்படி கீழ்க்கண்ட நிபந்தனைகளுடன் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை 90 தினங்களுக்குள் சமர்பிக்கவும், அதன் தொடர்ச்சியாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-ன்படி மாவட்ட சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய இசைவு பெற்று சமர்பிக்கும் பட்சத்தில் சாதாரண கற்குவாரி உரிமம் வழங்கப்படும் என்ற விவரம் இதன் மூலம் தெரிவிக்கப்படுகிறது.

நிபந்தனைகள்:

a. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.

b. அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர், அரசு புறம்போக்கு புலங்களுக்கு 10 மீட்டர் மற்றும் இதர நிலையான அமைப்புகளுக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரிப் பணி மேற்கொள்ள வேண்டும்.

c. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்பிக்க வேண்டும்.

d. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க
பரிந்துரைக்கப்பட்ட புல வரைபடம்.

ஒம்/- வி.ஜெய சந்திர பானு ரெட்டி
மாவட்ட ஆட்சித் தலைவர்,
கிருஷ்ணகிரி.

// உண்மை நகல்// உத்தரவுபடி//

மாவட்ட ஆட்சியருக்காக,
கிருஷ்ணகிரி

பெறுநர்:
தி/ள்.எஸ்.ஆர்.எண்டர்பிரைசஸ்,
எண்.25, சாந்தி நகர் - மேற்கு,
2வது கிராஸ், ஒசூர்,
ஒசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம்.

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CNM/270/2016/A

நகல்: 1. இயக்குநர், புவியியல் மற்றும் சுரங்கத் துறை, சென்னை
2. தமிழ்நாடு மாநில சுற்றுச்சூழல் மதிப்பீட்டு ஆணையம், சென்னை.

ANNEXURE – II

பதிவெண்:

கிருஷ்ணகிரி மாவட்ட அரசிதழ்

சிறப்பு வெளியீடு

ஆணையின்படி வெளியிடப்பட்டது

கிருஷ்ணகிரி, மார்ச் 14, 2022

[பிலவ, மாசி 30 – திருவள்ளுவர் ஆண்டு 2053]

[எண் 15

மாவட்ட ஆட்சியர் அறிவிக்கை

[ந. க. எண். 180/2022/(கனிமம்), நாள்: 10.03.2022]

சாதாரண கற்குவாரி ஒப்பந்தப்புள்ளி (டெண்டர்) மற்றும் ஏலம் குறித்த அறிவிப்பு

டெண்டர் விண்ணப்பங்கள் பெற கடைசி நாள் : 30.03.2022
பிற்பகல் 05.00 மணி வரை

பொது ஏலம் நடைபெறும் நாள் : 31.03.2022
முற்பகல் 10.30 மணி முதல்

1. கிருஷ்ணகிரி மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் அமைந்துள்ள சாதாரண கற்குவாரிகளிலிருந்து பொது உபயோக பயன்பாட்டிற்காக சாதாரண கற்களை வெட்டியெடுத்துச் செல்வதற்கு தனிநபர் மற்றும் தனியார் நிறுவனங்களுக்கு குவாரி குத்தகை உரிமம் வழங்க மூடி முத்திரையிடப்பட்ட ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் வரவேற்கும் மற்றும் ஏல அறிவிப்பு.

2. 1959 ஆம் வருடத்திய தமிழ்நாடு சிறுகனிமச் சலுகை விதிகளின் விதி 8 உள்விதி (1)-ன்படி கிருஷ்ணகிரி மாவட்டத்தில் இவ்வறிக்கையுடன் இணைக்கப்பட்ட அட்டவணையில் குறிப்பிடப்பட்டுள்ள அரசு புறம்போக்கு நிலங்களில் அமைந்துள்ள சாதாரண கற்குவாரிகளிலிருந்து சாதாரணகற்களை குவாரி செய்து எடுத்துச் செல்ல டெண்டருடன் இணைந்த ஏல முறையில் குவாரி குத்தகை உரிமம் வழங்க மூடி முத்திரையிடப்பட்ட 03 பிரதிகள் கொண்ட டெண்டர் விண்ணப்பங்கள் கிருஷ்ணகிரி மாவட்ட ஆட்சியரால் வரவேற்கப்படுகின்றன.

3. இந்த அறிவிக்கையின்படி விண்ணப்பிக்கப்படும் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பம் 1959 ஆம் வருடத்திய தமிழ்நாடு சிறுகனிமச் சலுகை விதிகளின் பின் இணைப்பு VI-ல் குறிப்பிடப்பட்டுள்ள படிவத்தில் இருக்க வேண்டும் மாதிரி விண்ணப்பப்படிவம் இந்த மாவட்ட அரசிதழ் சிறப்பு வெளியீட்டின் இணைப்பில் பிரசுரிக்கப்பட்டுள்ளது. இணைப்பில் பிரசுரிக்கப்பட்டுள்ள படிவம் VI-ன்படி பூர்த்தி செய்து அனுப்பப்படாத விண்ணப்பங்கள் ஏற்றுக் கொள்ளப்படமாட்டாது.

4. ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்களுடன் இணைத்து அனுப்பப்பட வேண்டிய இணைப்புகளின் விவரங்கள் மற்றும் குத்தகை நிபந்தனைகள் பற்றிய விவரங்கள் குறிப்பிடப்பட்டுள்ள அரசிதழ், கிருஷ்ணகிரி மாவட்ட ஆட்சியர் அலுவலகம், கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநர் அலுவலகம், கிருஷ்ணகிரி மாவட்டத்திலுள்ள அனைத்து சார் ஆட்சியர்/ வருவாய் கோட்டாட்சியர், வட்டாட்சியர் மற்றும் ஊராட்சி ஒன்றிய ஆணையர் அலுவலகங்களின் தகவல் பலகையில் விளம்பரம் செய்யப்படும்.

138C/3 (இ) இ. வெ. 15—1.

PLACE

5. அட்டவணையில் குறிப்பிட்டுள்ள குவாரிகளின் குத்தகை காலமானது குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றபட்ட நாளிலிருந்து ஏற்கனவே குவாரி குத்தகை வழங்கப்பட்டு குத்தகை காலம் முடிவுற்ற சாதாரண கற்குவாரி இனங்களுக்கு 05 ஆண்டுகளும், புதியதாக சேர்க்கப்பட்டுள்ள (virgin) ஏற்கனவே குவாரி பணி நடைபெறாத சாதாரண கற்குவாரி இனங்களுக்கு 10 ஆண்டுகளும் ஆகும்.

6. ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பதாரர் தனது விண்ணப்பத்தில் குவாரியின் மொத்த குத்தகை காலத்திற்குமான ஒரே தவணையில் செலுத்தத்தக்க குத்தகை தொகையை உரிய இடத்தில் எண்ணிலும் எழுத்திலும் தெளிவாக குறிப்பிட வேண்டும்.

7. மாவட்ட அரசிதழ் சிறப்பு வெளியீட்டின்படி அரசிதழில் கண்டுள்ள நிபந்தனைகளின்படி பூர்த்தி செய்யப்பட்ட ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்களை அனைத்து இணைப்புகளுடன் கவரில் வைத்து மூடி முத்திரையிட்டு துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி என்ற விலாசமிட்டு நேரிலோ அல்லது ஒப்புகை பெறத்தக்க பதிவஞ்சல் மூலமாகவோ மாவட்ட ஆட்சியர் அலுவலக வளாக தரைதளத்தில் அறை எண்.30ல் உள்ள புவியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநர் அலுவலகத்தில் 2022ம் ஆண்டு மார்ச் திங்கள் 30-ம் நாள் மாலை 5.00 மணிக்குள் கிடைக்கும்படி அனுப்பப்பட வேண்டும். கவரின் மீது விண்ணப்பிக்கும் குவாரியின் விவரம் மற்றும் அட்டவணையில் குறிப்பிட்டுள்ள குவாரியின் வரிசை எண் போன்றவற்றை தவறாமல் குறிப்பிட வேண்டும்.

8. மேலே குறிப்பிட்ட காலக்கெடுவிற்குள் வரப்பெற்ற விண்ணப்பங்கள் மட்டும் ஏலம் நடைபெறும் நாளன்று ஆஜராகியிருக்கும் சம்பந்தப்பட்ட குவாரிக்கு விண்ணப்பித்துள்ள விண்ணப்பதாரர்கள் மற்றும் பொது ஏலத்தில் கலந்து கொள்பவர்கள் முன்னிலையில் அட்டவணைகளில் உள்ள குவாரிகளின் வரிசைகளின் முறையே முதலில் பொது ஏலமும் பின்னர் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் திறப்பும் மேற்கொள்ளப்படும்.

9. மேலே குறிப்பிட்ட நாளில் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் திறப்பதற்கு முன்னர் ஒவ்வொரு குவாரிக்கும் தனித்தனியே பொது ஏலம் விடப்படும். ஏல நடவடிக்கை முடிவு பெற்ற பின்பு சம்பந்தப்பட்ட குவாரிக்கு வரப்பெற்ற டெண்டர் விண்ணப்பங்கள் பிரித்து பரிசீலிக்கப்படும். டெண்டர் விண்ணப்பம் மூலம் கோரப்பட்டுள்ள உயர்ந்தபட்ச டெண்டர் தொகை அல்லது ஏலம் மூலம் கோரப்பட்ட உயர்ந்தபட்ச குத்தகை தொகை இதில் எது அதிகமோ அத்தொகையே சம்பந்தப்பட்ட குவாரிக்கான உயர்ந்தபட்ச குத்தகை தொகையாக எடுத்துக்கொள்ளப்பட்டு குவாரி குத்தகை உரிமம் வழங்குதல் சம்பந்தமாக நடவடிக்கைகள் மேற்கொள்ளப்படும்.

10. மேற்கண்டபடி வரப்பெறும் டெண்டர் / ஏல விண்ணப்பங்கள், 1959ஆம் ஆண்டு தமிழ்நாடு சிறுகனிமச் சலுகை விதிகள், சுரங்கங்கள் மற்றும் கனிமங்கள் (மேம்படுத்துதல் மற்றும் முறைப்படுத்துதல்) சட்டம் 1957 மற்றும் இந்த ஏல அறிவிப்பில் குறிப்பிட்டுள்ள முக்கிய நிபந்தனைகளின்படி பரிசீலிக்கப்பட்டு அவற்றின்மீது தக்க ஆணைகள் பிறப்பிக்கப்படும்.

11. இந்த மாவட்ட அரசிதழ் அறிவிக்கை பிரசுரிக்கப்பட்ட பின்னரோ, குத்தகை உறுதி ஆணை பிறப்பிப்பதற்கு முன்னரோ, நிபந்தனைகளை மாற்றவோ அல்லது ரத்து செய்யவோ மற்றும் பட்டியலில் கண்டுள்ள எல்லா குவாரிகளின் குத்தகை உரிமம் கோரும் ஒப்பந்தப்புள்ளி மனுக்களை எக்காரணமும் கூறாமல் ரத்து செய்யவோ அல்லது மேற்படி மனுக்களை மூடி முத்திரையிடப்பட்ட உறைகளை திறக்கும் நாள் நேரம் மற்றும் ஏலம் நடத்தும் நாள் மற்றும் நேரம் ஆகியவைகளை தள்ளிவைக்கவோ நிறுத்திவைக்கவோ மாவட்ட ஆட்சியருக்கு முழு அதிகாரம் உண்டு. ஏதாவது காரணத்தினால் ஒத்திவைக்க நேர்ந்தால் அதற்கு மனுதாரர்கள் யாருக்கும் நஷ்டஈடு கோர உரிமை இல்லை.

12. விண்ணப்பதாரர் ஒவ்வொரு குவாரிக்கும் தனித்தனியே ஒரு ஒப்பந்தப்புள்ளி விண்ணப்பத்தை உரிய இணைப்புகளோடு அனுப்ப வேண்டும். ஒரே விண்ணப்பத்தில் ஒரு குவாரிக்கு மேல் பல குவாரிகளை குறிப்பிட்டு அனுப்பும் விண்ணப்பம் நிராகரிக்கப்படும்.

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13. ஒப்பந்தப்புள்ளி விண்ணப்பம் அனுப்புவதற்கு முன்/ ஏலத்தில் கலந்து கொள்வதற்கு முன் இம்மாவட்ட அரசிதழ் அறிவிக்கையுடன் இணைக்கப்பட்டுள்ள பட்டியலில் கண்ட சம்பந்தப்பட்ட குவாரியை / குவாரிகளை விண்ணப்பதாரர் தனது சொந்த செலவிலேயே நேரில் பார்வையிட்டு பாதை வசதி கனிமத்தின் தரம் மற்றும் கனிமத்தின் இருப்பு ஆகியவற்றை ஆராய்ந்து பின்னர் குத்தகை உரிமம் கோரி விண்ணப்பிக்க வேண்டும் மற்றும் ஏலத்தில் கலந்து கொள்ளவேண்டும். ஆணை வழங்கப்பட்ட பின் குவாரி அமைந்துள்ள புல எண், பரப்பு, குவாரிகளின் நான்கு எல்லைகள், பாதை வசதி, கனிமத்தின் தரம் கனிமத்தின் இருப்புக்குறித்து எவ்வித தாவாவும் செய்ய குத்தகைதாரருக்கு உரிமை கிடையாது.

14. 1959-ஆம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகளில் கண்டுள்ள அனைத்து சாராம்சங்களையும் மாவட்ட அரசிதழில் உள்ள அனைத்து நிபந்தனைகளையும் நன்கு தெரிந்து கொண்டபின் ஒப்பந்தப்புள்ளி விண்ணப்பங்களை உரிய இணைப்புகளோடு அனுப்பவேண்டும். விண்ணப்பம் அனுப்பிய பிறகு விதிகள் மற்றும் குத்தகை நிபந்தனைகள் பற்றி சரியாக தெரியாது என மனுதாரர் வாதிட்டால் அது ஏற்றுக்கொள்ளப்பட மாட்டாது.

15. ஒப்பந்தப்புள்ளி (டெண்டர்) மற்றும் ஏல நிபந்தனைகள் :

1) ஒவ்வொரு குவாரிக்கும் இந்த அரசிதழின் பிற்சேர்க்கையில் பிரசுரிக்கப்பட்டுள்ள இணைப்பு VI-ல் காணும் மாதிரி விண்ணப்ப படிவத்தின்படி தனித்தனி விண்ணப்பங்களில் விண்ணப்பிக்க வேண்டும்.

2) நடப்பில் மாநில அளவில் ஒரு நபருக்கு அதிகபட்சம் இரண்டு குவாரிகளுக்கு மட்டுமே குத்தகை உரிமம் வழங்கப்படும்.

3) இந்த அரசிதழின் அட்டவணையில் குறிப்பிட்டுள்ள குவாரிகளின் குத்தகை காலமானது, குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்பட்ட நாளிலிருந்து ஏற்கனவே குவாரி குத்தகை வழங்கப்பட்டு குத்தகை காலம் முடிவுற்ற சாதாரண கற்குவாரி இனங்களுக்கு 05 ஆண்டுகளும் புதியதாக சேர்க்கப்பட்டுள்ள சாதாரண கற்குவாரி இனங்களுக்கு (Virgin quarry) 10 ஆண்டுகளும் ஆகும். குத்தகை ஒப்பந்தப்பத்திரத்தில் குறிப்பிடப்படும் இறுதி நாளில் குத்தகை காலம் முடிவடையும், குத்தகை காலம் எக்காரணத்தைக்கொண்டும் நீட்டிக்கப்பட மாட்டாது.

4) ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பத்துடன் கீழ்க்கண்டவற்றை இணைத்து அனுப்ப வேண்டும்.

(அ) திரும்ப வழங்க இயலாத விண்ணப்பக் கட்டணமாக ரூ.1500/-க்கான கேட்பு வரைவோலையை (டிமாண்ட் டிராப்ட்) ஏதேனும் ஒரு தேசிய மயமாக்கப்பட்ட வங்கியில் துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களின் பதவியின் பெயரில் பெற்று அல்லது அரசு கருவூலத்தில் செலுத்திய அசல் சலான் இணைக்க வேண்டும்.

(ஆ) பிணை வைப்புத்தொகை (Earnest money deposit) ரூ.25000/- (ரூபாய் இருபத்தைந்தாயிரம் மட்டும்)க்கான கேட்பு வரைவோலை ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களின் பதவியின் பெயரில் பெற்று இணைக்க வேண்டும். தனிநபர் பெயருக்கு எடுத்து கொடுக்கப்படும் வங்கி வரைவோலை ஏற்றுக்கொள்ளப்படமாட்டாது குத்தகை உரிமம் வழங்கப்படுபவர் செலுத்த வேண்டிய டெண்டர்/ ஏலத் தொகையில் இந்த தொகை பின்னர் சரி செய்து கொள்ளப்படும்.

(இ) ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பத்தில் குறித்துள்ள மொத்த குத்தகை தொகையில் 10 சதவீதத் தொகைக்கான கேட்பு வரைவோலை (டிமாண்ட் டிராப்ட்டை) துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களின் பதவியின் பெயரில் ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் பெற்று இணைக்க வேண்டும்.

(FF) மாவட்ட வாரியாக கனிம வாரியாக விண்ணப்பதாரர் / ஏலதாரர் நேரடியாகவோ அல்லது பங்குதாரராகவோ தொடர்புள்ள குவாரிகள் பற்றிய கீழ்க்கண்ட விவரங்கள் அல்லது ஆணையுறுதி ஆவணம் (அபிடவிட்) மூலம் தெரிவிக்க வேண்டும்.

1. விண்ணப்பதாரருக்கு கனிம குத்தகையுள்ள மாவட்ட ஆட்சியரால் வழங்கப்பட்ட செல்லத்தக்க சுரங்கவரி நிலுவை இல்லா சான்றிதழ் அல்லது சுரங்கவரி நிலுவை இல்லை என்பதற்கான ஆணையுறுதி வாக்குமூலம் இணைக்கப்படவேண்டும்.

2. வருமான வரி செலுத்திய சான்றிதழ் அல்லது வருமானவரி பாக்கியில்லை என்பதற்கான ஆணையுறுதி வாக்குமூலம் இணைக்கப்படவேண்டும்.

3. மற்றும்,

   i) அனுபவத்திலிருக்கும் குவாரி குத்தகை அனுமதி பற்றி விவரம்

   ii) ஏற்கனவே விண்ணப்பித்து இதுவரை அனுமதி வழங்கப்படாத குவாரி குத்தகை அனுமதி பற்றி விவரம்.

   iii) தற்போது உடனிகழ்வாக விண்ணப்பிக்கும் குவாரி குத்தகை அனுமதி விவரம்

4. மேற்கண்ட ஆணையுறுதி ஆவணங்களை ரூ.20/- மதிப்புள்ள முத்திரைத்தாளில் சான்று உறுதி அலுவலரிடம் (Notary Public) கையொப்பம் பெற்று பூர்த்தி செய்யப்பட்ட விண்ணப்பத்துடன் இணைத்து சமர்ப்பிக்கப்பட வேண்டும்.

5) ஏலத்தில் நேரடியாக கலந்து கொள்பவர்கள் பூர்த்தி செய்யப்பட்ட விண்ணப்பபடிவம், திருப்பித்தரப்படாத விண்ணப்பக்கட்டணம் ரூ.1500/- மற்றும் பிணை வைப்புத்தொகை ரூ.25000/- ஆகியவற்றிற்கான கேட்பு வரைவோலைகள் (டிமாண்ட் டிராப்ட்) துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களின் பதவியின் பெயரில் ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் பெற்று ஏலத்தில் நேரடியாக கலந்து கொள்வதற்கு முன்னர் ஏலம் நடத்தும் அலுவலரிடம் சமர்ப்பிக்க வேண்டும். மேலும் ஏலம் மூலம் கோரப்பட்ட உயர்ந்தபட்ச தொகை டெண்டர் மூலம் கோரப்பட்ட உயர்ந்த பட்ச தொகையைவிட அதிகமாக இருந்தால் ஏல முடிவு அறிவிப்பு செய்யப்பட்டவுடன் ஏலத்தொகையில் 10 சதவீதத் தொகையை உடன் ஏலம் நடத்தும் அலுவலரிடம் தேசிய மயமாக்கப்பட்ட ஏதேனும் ஒரு வங்கியில் பெறப்பட்ட கேட்பு வரைவோலையாகவோ அல்லது ரொக்க தொகையாகவோ செலுத்தி தக்க இரசீதுகள் பெற்றுக் கொள்ள வேண்டும்.

6) நேரில் விண்ணப்பங்கள் அளித்தால் அதைப்பெற்றுக் கொண்டதற்கான ஒப்புதல் கடிதம் அன்றைய தினமே வழங்கப்படும். தபால் மூலம் பெறப்படும் விண்ணப்பத்திற்கு ஒப்புதல் கடிதம் மூன்று தினங்களுக்குள் தபாலில் அனுப்பி வைக்கப்படும். டெண்டர் விண்ணப்பங்கள் மூடி முத்திரையிடப்பட்ட கவர்களில் மட்டுமே அனுப்பி வைக்கப்பட வேண்டும். கவரின் மேல்புறத்தில் விண்ணப்பதாரரின் பெயர் மற்றும் விலாசம் தெளிவாக குறிப்பிடப்பட வேண்டும். கவரின் இடது மூலையில் கனிமத்தின் பெயர், குவாரி அமைந்துள்ள கிராமம், புல எண், பரப்பு அரசிதழின் இணைப்பில் பிரசுரிக்கப்பட்டுள்ள குவாரிகளின் பட்டியலில் உள்ள வரிசை எண் ஆகியவற்றை தவறாமல் குறிப்பிடவேண்டும்.

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7) மாவட்ட ஆட்சியரால் அல்லது அவரால் அங்கீகாரம் வழங்கப்பட்ட அலுவலரிடம் உள்ள வருகை பதிவேட்டில் விண்ணப்பதாரர்கள் / ஏலதாரர்கள் கையொப்பமிட்ட பின்னரே ஏல அறைக்குள் அனுமதிக்கப்படுவார்கள்.

8) ஏலம் மற்றும் ஒப்பந்தப்புள்ளியில் (டெண்டர்) கலந்து கொள்பவர் செலுத்தும் விண்ணப்பக்கட்டணத் தொகை ரூ.1500/- திருப்பித்தரப்படமாட்டாது. ஏலத்தில் நேரிடையாக பங்குபெறுபவர்கள் கொடுக்கும் விண்ணப்பத்தில் குத்தகை தொகையை குறிப்பிட தேவையில்லை. ஏற்கனவே டெண்டர் விண்ணப்பம் கொடுத்தவர்கள் ஏலத்தில் கலந்துகொள்ள முடியாவிடில் அவருக்குப்பதிலாக அவரால் நியமிக்கப்பட்ட வேறு ஒரு நபர் மட்டுமே நோட்டரிபப்ளிக் முன்பு விண்ணப்பதாரர் மற்றும் நியமிக்கப்பட்ட நபர் கையெழுத்துக்கள் சான்றுபெறப்பட்ட உறுதிமொழி ஆவணம் (அபிடவிட்) தாக்கல் செய்வதின் பேரில் ஏலத்தில் கலந்து கொள்ள அனுமதிக்கப்படுவார்கள்.

9) ஒப்பந்தப்புள்ளி விண்ணப்பபடிவத்தில் மனு செய்யும் நபர்கள் தாங்கள் மனு செய்யும் குவாரிக்கு குத்தகை தொகையாக செலுத்த விரும்பும் தொகையை விண்ணப்பத்தில் குறிப்பிடாமல் இருந்தாலோ அல்லது விண்ணப்ப கட்டணம், பிணைவைப்புத் தொகை, அதிகபட்சமாக குறிப்பிடும் குத்தகை தொகையின் 10% தொகை ஆகியவற்றிற்கான வங்கி வரைவோலைகளை விண்ணப்பத்துடன் இணைக்காமல் இருந்தாலோ, விண்ணப்பத்தாளில் விண்ணப்பதாரர் தன் கையொப்பம் செய்யாமல் இருந்தாலோ 1959ஆம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகளில் கூறப்பட்ட சுரங்கவரி பாக்கியின்மை சான்றிதழ், வருமானவரி பாக்கியின்மை சான்றிதழ் அல்லது இவைகளுக்காக வழங்கப்படும் ஆணை உறுதி ஆவணம் மற்றும் ஏற்கனவே மனுதாரர் நேரடியாகவோ பங்குதாரராகவோ உள்ள குவாரிகள் தொடர்பான உறுதிமொழி ஆவணம் ஆகியவற்றை இணைக்கப்படாமல் இருந்தாலோ மேற்படி ஒப்பந்தப்புள்ளி விண்ணப்பம் விதிகளின்படி நிராகரிக்கப்படும். மேற்குறிப்பிட்டவாறு விண்ணப்பம் நிராகரிக்கப்பட்ட ஒப்பந்தப்புள்ளி விண்ணப்பதாரர்களுக்கு ஒப்பந்தபுள்ளிகள் திறக்கும் சமயத்தில் விண்ணப்பதாரர் ஆஜரில் இருந்தால் மட்டும் விண்ணப்பதாரரிடம் தக்க ஒப்புதல் பெற்று வங்கிவரைவோலை திருப்பி வழங்கப்படும். ஒப்பந்தப்புள்ளி திறக்கும் சமயத்தில் ஆஜரில் இல்லாத நபருக்கு பதிவஞ்சல் மூலம் வங்கி வரைவோலைகள் தனியே அனுப்பி வைக்கப்படும்.

10) ஒவ்வொரு குவாரிக்கும் பொது ஏலம் நடத்தி முடித்த பின்னர் சம்பந்தப்பட்ட குவாரிக்கான டெண்டர் விண்ணப்பங்கள் வருகை தந்திருக்கும் சம்பந்தப்பட்ட டெண்டர் விண்ணப்பதாரர்கள் மற்றும் ஏலதாரர்கள் அல்லது அவர்களது அதிகாரம் பெற்ற நபர்கள் முன்னிலையில் சம்பந்தப்பட்ட அதிகாரிகளால் திறக்கப்படும். ஒப்பந்தப்புள்ளி (டெண்டர்) திறக்கும் நேரத்தில் விண்ணப்பதாரர் அல்லது ஏலதாரர் அல்லது அங்கீகாரம் பெற்ற நபர் ஆஜரில் இல்லாததற்கு மாவட்ட நிர்வாகம் பொறுப்பு அல்ல. இதன்பொருட்டு ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பம் திறப்பதோ ஏலம் நடத்துவதோ நிறுத்தி வைக்கப்படமாட்டாது.

11) அட்டவணையில் கண்ட ஒவ்வொரு குவாரிக்கும் வரப்பெற்ற மொத்த செல்லத்தக்க விண்ணப்பங்கள், விண்ணப்பதாரர்களின் பெயர்கள் ஒவ்வொரு விண்ணப்பதாரராலும் குறிப்பிடப்பட்ட அதிகபட்ச டெண்டர் தொகை ஆகியவற்றையும் அதிகபட்ச தொகைக்கு ஏலம் கேட்ட நபர் பெயர் மற்றும் அதிகபட்ச ஏலத்தொகை ஆகியவற்றையும் ஏலம் முடிவடைந்தவுடன் அறிவிக்கப்படும். ஏலத்தொகை, ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பத்தில் குறிப்பிடப்பட்டுள்ள குத்தகை (டெண்டர்) தொகையை விடகுறைவாக இருந்து ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் மூலமாக கோரப்படும் குத்தகை தொகைகள் ஒன்றுக்கும் மேற்பட்ட விண்ணப்பதாரர்களால் ஒரே மாதிரியாக குறிப்பிடப்பட்டிருந்தால் சம்பந்தப்பட்ட விண்ணப்பதாரர்களை மட்டும் அழைத்து சம்பந்தப்பட்ட குவாரிக்கு மட்டும் மறுகேட்பு மூலம் உயர் குத்தகை தொகை பெற நடவடிக்கை எடுக்கப்படும். அதிகபட்ச குத்தகைத் தொகை கோரும் நபர் அதிகபட்ச ஏலத்தொகை கோரிய நபராக அறிவிக்கப்படுவார். ஒவ்வொரு குவாரிக்கும் பெறப்பட்ட ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்களில் குறிப்பிடப்பட்டுள்ள அதிகபட்ச குத்தகைத்தொகை அல்லது பொது ஏலத்தின் மூலம் கேட்கப்படும் அதிகப்பட்ச குத்தகைத் தொகை இவற்றில் எது அதிகமோ அந்த தொகை மேற்கண்ட குவாரிக்கு கோரப்பட்ட அதிகபட்ச குத்தகை தொகை என அறிவிக்கப்பட்டு அதிகப்பட்ச குத்தகைத் தொகை குறிப்பிட்டவராக அறிவிக்கப்படுவார். அதிகப்பட்சத் தொகைக்கு டெண்டர்/ஏலம் மூலம் கேட்ட நபர் என உறுதி செய்யப்பட்டவுடன், டெண்டர்/ ஏலம்

கேட்ட நபர் அவரால் அதிகபட்சமாக கோரப்பட்ட தொகையில் பத்து சதவிகித தொகையினை கேட்பு வரைவோலையாகவோ / பணமாகவோ உடனடியாக செலுத்திடவேண்டும். அவ்வாறு செலுத்தத் தவறும் பட்சத்தில் அவரது ஏலம் / டெண்டர் ரத்து செய்யப்பட்டு அவருக்கு அடுத்தபடியாக அதிகபட்சத்தொகை கேட்ட நபருக்கு வாய்ப்பளிக்கப்படும். அவரும் பத்து சதவீதத் தொகையினை செலுத்த தவறும் பட்சத்தில் இதே நடைமுறையை தொடர்ந்து நடத்துவது அல்லது மறு ஏலம் விட ஆணையிடுவது போன்றவை மாவட்ட ஆட்சியரின் இறுதி முடிவு மற்றும் அதிகார வரம்பிற்கு உட்பட்டதாகும். அதிகபட்ச ஏலம் / டெண்டர் கேட்ட நபரை தவிர மற்றவர்களுக்கு அவர் தாம் செலுத்திய பிணைவைப்புத்தொகை திரும்ப தரப்படும். ஏலம் / டெண்டர் உறுதி செய்யப்பட்ட நபர் மீதமுள்ள 90 சதவீத தொகையினை பதினைந்து (15) தினங்களுக்குள் செலுத்திவிட வேண்டும், தவறும் பட்சத்தில் ஏலம் / டெண்டர் ரத்து செய்யப்பட்டு அவர் செலுத்திய அனைத்து தொகைகளும் பறிமுதல் செய்து அரசு கணக்கில் சேர்க்கப்படும்.

12) (அ) சிறப்பு நிபந்தனைகள்:

(i) இந்த டெண்டர் மற்றும் ஏலமுறையில் கலந்து கொள்ளும் விண்ணப்பதாரர்கள் அனைவரும் இந்திய அரசின் வருமான வரித்துறையினரால் வழங்கப்படும் நிரந்தர கணக்கு எண் (PAN - CARD) அட்டையை பெற்றிருக்க வேண்டும் அல்லது வருமான வரி துறையினரிடமிருந்து பெற்று சமர்ப்பிக்க வேண்டும்.

(ii) இந்த நிரந்தர கணக்கு எண்ணை சமர்ப்பித்து டெண்டர் மற்றும் ஏலம் கோரும் தொகைக்கு 2% வருமான வரியை கிருஷ்ணகிரி மாவட்ட புவியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநர் அவர்களுக்கு வருமான வரித்துறையினரால் அளிக்கப்பட்டுள்ள TAN.No.CHED05905E-ன் கீழ் உரிய வருமானவரித்துறை செலுத்துச்சீட்டின் மூலம் செலுத்த வேண்டும்.

(iii) மேலும் குத்தகை உரிமம் பெற்ற பின்னர் கனிமங்களை எடுத்துச் செல்ல போக்குவரத்து அனுமதி சீட்டுபெற ஒவ்வொரு முறையும் செலுத்துகின்ற சீனியரேஜ் தொகையின் மீது 2% வருமான வரி தொகை செலுத்தவேண்டும்.

(iv) மேலும் குத்தகை உரிமம் பெற்ற பின்னர் கனிமங்களை எடுத்துச் செல்ல போக்குவரத்து அனுமதி சீட்டு பெற ஒவ்வொருமுறையும் செலுத்துகின்ற சீனியரிஜே தொகையின் மீது 10 சதவீத தொகையை கிருஷ்ணிகிரி மாவட்ட கனிம அறக்கட்டளை நிதியாக கிருஷ்ணகிரி பாரத மாநில வங்கி (State Bank of India) கணக்கு என்.37243080996-ல் செலான் மூலம் செலுத்த வேண்டும்.

(v) அரசாணை எண்.23 தொழில் (எம்.எம்.சி.1) துறை நாள்:23.02.2022-ன்படி பசுமை வரியாக உள்மாநிலங்களில் கனிமம் கொண்டு செல்வதற்கு சீனியேரேஜ் தொகைக்கு 10 சதவீதம் அல்லது வெளி மாநிலங்களுக்கு கனிமம் கொண்டு செல்வதற்கு சீனியேரேஜ் தொகைக்கு 20 சதவீதம் உரிய அரசு கணக்கில் செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.

13). குவாரி குத்தகை கோரி ஒரே ஒரு மறைமுக டெண்டர் மனு கொடுக்கப்பட்டு திறந்த முறை பொது ஏலத்தில் கலந்து கொள்ள யாரும் முன்வரவில்லையெனில், டெண்டர் தொகை அரசுக்கு ஆதாயமானது என்று உதவி / துணை இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை) கருதினால், அந்த டெண்டர் மனுதாரருக்கு குவாரி குத்தகை வழங்க உதவி / துணை இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை) ஒப்புதல் அளிக்கலாம். டெண்டர் தொகை அரசுக்கு ஆதாயமானதல்ல என்று உதவி / துணை இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை) கருதும் பட்சத்தில், மனுவைத் தள்ளுபடி செய்து ஆணையிடப்பட்டு மறு ஏலத்தின் மூலம் குவாரி குத்தகை வழங்க மேல்நடவடிக்கை எடுக்க மாவட்ட ஆட்சியர்க்கு அதிகாரம் உண்டு.

PL1 CR

துணை இயக்குநர் அலுவலகம் 29 JUN 2022

14) மாண்புமிகு இந்திய உச்சநீதிமன்றம் வழக்கு எண் ஐ.ஏ 12-13/2012 எஸ்.எல்.பி(சி) எண். 19628 - 19629/2009 ஆகியவற்றின் மீது 27.02.2012 அன்று வழங்கியுள்ள ஆணைகளின்படியும், இந்திய அரசு சுற்றுச் சூழல் மற்றும் வனத்துறை குறிப்பாணை எண். எல்.11011/47/2011 - IA. II(M) நாள். 18.05.2012ன்படியும், அரசாணை எண். (எம்எஸ்)எண். 79, தொழில் (எம்எம்சி1) துறை நாள்: 06.04.2015ன்படி 1959ஆம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகளில் திருத்தம் செய்யப்பட்டு சேர்க்கப்பட்ட விதிகள் எண். 41 மற்றும் 42-ன் படியும் அனைத்து சிறுகனிம குவாரிகளுக்கும் குவாரி குத்தகை வழங்கும் முன்பு புவியியல் மற்றும் சுரங்கத் துறை துணை இயக்குநரால் அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் இந்திய அரசின் சுற்றுச்சூழல், வனம் மற்றும் பருவநிலை மாற்றம் அமைச்சகத்தால் வழங்கப்படும், மாநில சுற்றுசூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் / இசைவு ஆகியவற்றை பெற்று சமர்ப்பித்த பின்பு மட்டுமே குவாரி குத்தகை வழங்க முடியும். குவாரி பணி தொடங்குவதற்கு முன்பாக தமிழ்நாடு மாசு கட்டுபாட்டு வாரியத்தின் இசைவினை பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி பணி தொடங்க அனுமதிக்கப்படும்.

15) அதிகபட்சத் தொகை கேட்ட நபருக்கு குவாரி குத்தகை உரிமம் உறுதி செய்யப்படுமாயின் அவருக்கு குவாரி குத்தகை உரிமம் வழங்கப்படவுள்ள குவாரியின் புல எண், பரப்பளவு, ஆகிய விவரங்கள் அடங்கிய அறிவிக்கை வழங்கப்பட்டு அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம், தமிழ்நாடு மாநில சுற்றுசூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/ இந்திய அரசு சுற்றுச்சூழல் மற்றும் வனத்துறையின் தடையின்மை சான்று ஆகியவற்றை விதிகளின்படி உரிய காலத்திற்குள் சமர்ப்பிக்குமாறு தெரிவிக்கப்படும்.

(அ) மேற்கண்ட அறிவிக்கை பெற்றுக்கொண்ட மனுதாரர் சுரங்கத்திட்டத்தை தகுதி வாய்ந்த நபர் (QP) மூலம் அரசு தெரிவித்துள்ள விதிகள் மற்றும் வழிகாட்டுதலின்படி தயாரித்து அறிவிக்கை பெறப்பட்ட நாளிலிருந்து மூன்று மாத காலத்திற்குள் கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநரிடம் அங்கீகாரம் பெற சமர்ப்பிக்க வேண்டும்.

(ஆ) மேற்கண்ட மனுதாரர் கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநரால் அங்கீகாரம் வழங்கப்பட்ட சுரங்கத்திட்டத்தை இந்திய அரசு சுற்றுச்சூழல், வனம் மற்றும் பருவநிலை மாற்றம் அமைச்சகத்தின் மாநில சுற்றுசூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் முன்பு சமர்பித்து தடையின்மை சான்று கோரி விண்ணப்பித்து தடையின்மை சான்றினை பெற்று சமர்பிக்க வேண்டும்.

(இ) காவேரி வடக்கு வனவிலங்கு சரணாலயம், தேசிய பூங்கா, யானைகளின் வலசை பாதை மற்றும் காப்பு காடுகளிலிருந்து பாதுகாப்பு இடைவெளி தூரத்திற்கு அப்பால் மட்டுமே குத்தகை உரிமம் வழங்க நடவடிக்கை எடுக்கப்பட்டுள்ளது. எனினும், அரசால் மாற்றி அமைக்கப்படும் பாதுகாப்பு இடைவெளி தூரத்திற்குள் குவாரி பகுதி வருவதாக பிற்காலத்தில் தெரியவந்தால் குத்தகை உரிமம் ரத்து செய்ய மேல்நடவடிக்கை தொடரப்படும்.

(ஈ) அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் முதல் ஐந்து ஆண்டு காலத்திற்கு மட்டுமே செல்லத்தக்கதாகும்.

(உ) மேற்கண்ட ஆவணங்களை சமர்பித்த பின்பு விதிகளின்படி மனுதாரருக்கு குவாரி குத்தகை வழங்கி ஆணையிடப்படும். அங்கீகரிக்கபட்ட சுரங்கத்திட்டம் மற்றும் தமிழ்நாடு மாநில சுற்றுசூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/ இந்திய அரசு சுற்றுச்சூழல், வனம் மற்றும் பருவநிலை மாற்றம் அமைச்சகத்தின் தடையின்மை சான்று ஆகியவற்றை குறிப்பிட்ட காலக்கெடுவிற்குள் சமர்பிக்க தவறினால் மனுதாரருக்கு மாவட்ட ஆட்சியர் முன்பு விசாரணைக்கு ஆஜராக வாய்ப்பளித்து விசாரணை நடத்தப்பட்டு ஏற்கனவே வழங்கப்பட்ட உத்தரவு ரத்து செய்ய நடவடிக்கை எடுக்கப்படும்.

16) மேற்கூறிய உத்தரவு கிடைக்கப் பெற்றவுடன் விண்ணப்பதாரர், ஆணையில் குறிப்பிடப்பட்ட காலக்கெடுவிற்குள் கீழ்க்கண்ட ஆவணங்களை குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றுவது தொடர்பாக துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களிடம் சமர்ப்பிக்க வேண்டும்.

(அ) விண்ணப்பதாரரின் கையொப்பமிட்ட வரைவு குத்தகை ஒப்பந்தப்பத்திரம் மற்றும் வரைபடம்.

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(ஆ) அசல் குத்தகை ஒப்பந்தப்பத்திரம் தயார் செய்வதற்கு தேவையான நீதித்துறை சாரா முத்திரைத்தாள்.

(இ) காப்புத் தொகைக்கான ஏலம் / டெண்டர் தொகையில் இருபது சதவீதம் (20%) அல்லது ரூ.10,000/-ம் இதில் எது அதிகமோ அதை செலுத்தியதற்கான அசல் செலுத்துச்சீட்டு (சலான்).

(ஈ) மொத்த குத்தகை பரப்பிற்கான பரப்புவரி செலுத்தியதற்கான அசல் சலான்.

17) அவ்வாறு குறிப்பிட்ட காலத்திற்குள் மேற்கண்ட ஆவணங்களை சமர்ப்பிக்க தவறினால் வழங்கப்பட்ட குத்தகை உரிமம் ரத்து செய்யப்பட்டு அவர் செலுத்திய அனைத்து தொகைகளும் விதிகளின்படி அரசுக்கு ஆதாயம் செய்து அரசு கணக்கில் சேர்க்கப்படும்.

18) மேற்கண்ட ஆவணங்களை ஒப்படைத்து குவாரி குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றிய பின்பே குவாரிப்பணியை தொடங்க வேண்டும். குவாரி குத்தகை ஆவணம் நிறைவேற்றுமுன் குவாரிப்பணி செய்வது கண்டறியப்பட்டால் அது அனுமதியின்றி கனிமம் வெட்டியெடுத்ததாக கருதப்பட்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் விதி 36-அ -ன்படி உரிய நடவடிக்கை எடுக்கப்படுவதுடன் குற்றவியல் நடவடிக்கையும் எடுக்கப்படும்.

19) குவாரி குத்தகைக்காக கோரப்பட்ட மொத்த குத்தகை காலத்திற்குமான ஒரே தடவையில் மொத்தமாக செலுத்தப்படும் குத்தகைத் தொகை நீங்கலாக குத்தகைதாரர் மேற்படி குவாரியில் இருந்து எடுத்துச்செல்ல உத்தேசிக்கும் சிறுகனிமத்திற்கு 1959ம் ஆண்டைய தமிழ்நாடு சிறுகனிம சலுகை விதிகளின் அட்டவணை 2ல் குறிப்பிடப்பட்டுள்ள விகிதாச்சாரப்படி சீனியரேஜ் கட்டணத்தை செலுத்தி மொத்த இசைவாணைச்சீட்டு மற்றும் அனுப்புகைச் சீட்டு பெற்றுதான் சிறுகனிமத்தினை எடுத்துச் செல்ல வேண்டும். மேலும் அரசால் அவ்வப்போது திருத்தி நிர்ணயிக்கப்படும் சீனியரேஜ் தொகையை செலுத்தி அனுமதிச்சீட்டுப்பெற வேண்டும். மேலும் கனிமங்களை வெளியில் எடுத்துச் செல்ல போக்குவரத்து அனுமதிசீட்டு பெற ஒவ்வொரு முறையும் செலுத்துகின்ற சீனியரிஜே தொகையின் மீது 10 சதவீத தொகையை கிருஷ்ணிகிரி மாவட்ட கனிம அறக்கட்டளை நிதியாக கிருஷ்ணகிரி பாரத மாநில வங்கி (State Bank of India) கணக்கு எண்.37243080996-ல் செலான் மூலம் செலுத்த வேண்டும். மேலும் கூடுதலாக அரசால் நிர்ணையிக்கப்பட்ட பசுமை வரியை உரிய அரசு கணக்கில் செலுத்தி அசல் சலான் சமர்ப்பிக்க வேண்டும்.

20) குத்தகைதாரர் ஒவ்வொரு மாதமும் குவாரிப்பணி செய்த தொழிலாளர்கள், குவாரி செய்த கனிமத்தின் அளவிற்குரிய கணக்குகளை பிரதி மாதம் ஐந்தாம் நாளுக்குள் துணை இயக்குநர் புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களுக்கு தணிக்கைக்கு ஆஜர் செய்ய வேண்டும்.

21) குவாரிகளுக்கு அருகில் உள்ள போக்குவரத்து சாலைகள், கிராம சாலைகள் குடியிருப்பு பகுதிகள் வீடுகள், வண்டிப்பாதைகள், மின் மற்றும் தொலைபேசி கம்பிகள், டிரான்ஸ்பார்மர்கள், ரயில்பாதைகள் பொதுப்பணித்துறை, வாய்க்கால், மதசம்பந்தமான வழிபாட்டுத்தலங்கள் மற்றும் இதர நிலையான அமைப்புகள் இவற்றிலிருந்து 1959ஆம் ஆண்டைய தமிழ்நாடு சிறுகனிம சலுகை விதிகளின்படி பாதுகாப்பு இடைவெளி விட்டு மீதமுள்ள இடத்திற்குள் தான் குவாரிப்பணி செய்யவேண்டும். பொதுமக்கள் உபயோகிக்கும் இடங்கள் குடியிருப்புக்கள் பட்டா நிலங்கள் அல்லது பொதுச் சொத்துக்கள் ஆகியவற்றிற்கு சேதம் ஏதும் ஏற்படாமல் குவாரிப்பணி செய்ய வேண்டும். குவாரி பணியால் சேதம் ஏதும் ஏற்பட்டால் அதற்கு குத்தகைதாரரே முழு பொறுப்பேற்று அதில் ஏற்படும் நட்டத்தை ஈடு செய்து தரவேண்டும்.

22) குத்தகைதாரரை மேற்குறிப்பிட்ட நிபந்தனைகள் அல்லாமல் 1959ஆம் ஆண்டைய தமிழ்நாடு சிறுகனிமச் சலுகை விதிகள், கனிமங்கள் மற்றும் சுரங்கங்கள் (மேம்படுத்துதல் மற்றும் முறைப்படுத்துதல்) சட்டம் 1957 மற்றும் இந்த அரசிதழில் குறிப்பிடப்பட்டுள்ள சிறப்பு நிபந்தனைகள் மற்றும் அரசால் அவ்வப்போது கொண்டுவரப்படும் ஆணைகளும் விதிகளும் கட்டுப்படுத்தும்.

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23) இவ்விதிகளின்கீழ் வழங்கப்படும் குவாரிகளின் குத்தகை காலம் எக்காரணத்தைக் கொண்டும் குத்தகை வழங்கப்பட்ட காலத்திற்கு மேல் நீட்டிக்கப்படவோ அல்லது குத்தகை காலம் புதுப்பிக்கப்படவோகூடாது. குத்தகை காலம் முடிந்தபின் குத்தகைதாரர்கள் குத்தகைக்கு விடப்பட்ட பகுதிகளில் எவ்விதமான உரிமையும் கொண்டாடக் கூடாது. மேலும், குத்தகை காலம் முடிந்தபின் மேற்கண்ட புலத்தை அரசுக்கு திரும்ப ஒப்படைத்து அதற்கான சான்றிதழை கிராம நிர்வாக அலுவலரிடம் பெற்று வட்டாட்சியர் வாயிலாக மாவட்ட ஆட்சியருக்கு தெரிவிக்க வேண்டும்.

24) 14 வயதுக்குட்பட்ட குழந்தை தொழிலாளர்களை குவாரிப்பணியில் ஈடுபடுத்தக்கூடாது.

25) இந்த அரசிதழில் குவாரி குத்தகை உரிமத்திற்காக அறிவிக்கப்பட்டிருக்கும் பட்டியலில் உள்ள குத்தகை விடப்படும் குவாரிகளை டெண்டர் / ஏலம் நடைபெறுவதற்கு முன்பாக நிறுத்தி வைக்கவோ, நீக்கவோ, புதியதாக சேர்க்கவோ குவாரி பரப்பளவை மாற்றவோ, மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

26) நிர்வாக சூழல் காரணமாக டெண்டர் மற்றும் ஏலத்தை ரத்து செய்ய மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

27) செய்தித்தாள் மூலமாகவோ, மாவட்ட அரசிதழ் மூலமாகவோ, அறிவிப்பு செய்யப்படாத குவாரிகளுக்கு ஏதாவது ஒப்பந்தப்புள்ளி விண்ணப்பங்கள் கிடைக்கப் பெற்றால் அவையாவும் முதிர்ச்சி அடையாத விண்ணப்பமாக கருதப்பட்டு உடனடியாக நிராகரிக்கப்படும். குறித்த காலக்கெடுவிற்குள் வந்து சேராத விண்ணப்பங்கள் காலவரையறை கடந்த விண்ணப்பமாக கருதப்பட்டு அவையாவும் நிராகரிக்கப்படும், நிராகரிக்கப்பட்ட விண்ணப்பங்களின் விண்ணப்ப கட்டணம் தவிர பிற வங்கி வரைவோலைகள் மட்டும் விண்ணப்பதாரருக்கு திரும்ப அனுப்பி வைக்கப்படும்.

28) 1959-ஆம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் அட்டவணைப் படிவம்-1ல் கண்ட ஒப்பந்தப்பத்திரத்தில் தேவையான அளவிற்கு நிபந்தனைகளை புதியதாக சேர்க்கவோ, நீக்கவோ மாற்றி அமைக்கவோ அரசுக்கு அதிகாரம் உண்டு, குத்தகை பத்திரம் ஏற்படுத்தியபின்பு புல எண் மற்றும் குவாரி செய்ய ஒதுக்கப்பட்ட பரப்புக்குறித்து எவ்வித தாவாவும் செய்ய குத்தகைதாரருக்கு உரிமை கிடையாது.

29) குத்தகை ஒப்பந்தப்பத்திரத்தை புலவரைபடத்துடன் சொத்து மாற்றுகைச் சட்டம் 1882-ன் பிரிவு 107ன் கீழ் குத்தகைதாரர் தனது சொந்த செலவில் பதிவுசெய்து பதிவு செய்த ஒப்பந்தப்பத்திரத்தினை கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநர் அலுவலகத்தில் உடன் ஒப்படைக்க வேண்டும்.

30) தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959-ன் விதி 36(I)ல் வரையறுக்கப்பட்டுள்ளவாறு அருகிலுள்ள குடியிருப்புகளுக்கு பாதுகாப்பு இடைவெளியாக 300 மீட்டரும் கிராம சாலைகளுக்கு 10 மீட்டரும் இதர சாலைகள் கட்டிடங்கள், வழிபாட்டு தலங்கள், மின்கம்பி பாதைகள், தொலைபேசி பாதைகள், புகைவண்டிப்பாதைகள், டிரான்ஸ்பார்மர்கள், ஆறு, ஏரி, குளம், குட்டை மற்றும் இதர பொது சொத்துக்கள் ஆகியவற்றிற்கு பாதுகாப்பு இடைவெளியாக 50 மீட்டரும் விட்டு மீதமுள்ள இடத்திற்குள்தான் குவாரிப்பணி செய்யப்படவேண்டும். புராதன சின்னங்களுக்கு தொல்லியல் துறையால் வரையறுக்கப்பட்டுள்ள பாதுகாப்பு இடைவெளி விட்டும் குவாரிப்பணி செய்ய வேண்டும். விதிகளின்படி தொல்லியல் சின்னங்களுக்கு 500 மீட்டர் பாதுகாப்பு இடைவெளி விட்டும், வனவிலங்கு சரணாலயம், தேசிய பூங்கா, யானைகளின் வலசை பாதை மற்றும் காப்புக்காடுகளுக்கு ஒரு கிலோ மீட்டர் பாதுகாப்பு இடைவெளிவிட்டும் குவாரி பணி செய்ய வேண்டும். பொதுமக்கள் உபயோகிக்கும் இடங்களான குடியிருப்புக்கள் பட்டா நிலங்கள் மற்றும் இதர பொதுசொத்துக்கள் ஆகியவற்றிற்கு சேதம் ஏதும் நேரிட்டால் அதற்கு குத்தகைதாரரே முழுபொறுப்பேற்று அதில் ஏற்படும் நட்டத்தை ஈடுசெய்து தரவேண்டும்.

31) நிர்வாக காரணம் மற்றும் பொது நலனை கருத்தில் கொண்டு குத்தகைக்கு விடப்பட்ட பரப்பினை பின்னர் குறைத்து நிர்ணயிக்கவும், குவாரி குத்தகையை ரத்து செய்யவும் அரசுக்கு அதிகாரம் உண்டு.

32) குத்தகைதாரர் 1959ஆம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகளின்படியும் மாவட்ட அரசிதழில் கண்டுள்ள நிபந்தனைகளின்படியும் ஒப்பந்தப்பத்திர நிபந்தனைகளின்படியும் நடந்து கொள்ள கடமைப்பட்டவராவார். குத்தகைகாலத்தில் சட்டதிட்டங்கள் மற்றும் குவாரி குத்தகை நிபந்தனைகளுக்கு ஒப்பந்த விதிகளுக்கு முரண்பட்டு குத்தகைதாரர் நடந்து கொண்டால் குத்தகை ரத்துச் செய்யப்படுவதுடன் காப்புத்தொகை மற்றும் அவர் செலுத்திய அனைத்து தொகைகளும் அரசுக்கு பறிமுதல் செய்யப்படும். அக்குவாரிக்கு மீண்டும் குவாரி குத்தகை வழங்க நடவடிக்கை மேற்கொள்ளப்படும்.

33) குவாரி குத்தகை வழங்கப்பட்ட இடத்தில் சாதாரண கற்களை குவாரி செய்வதில் ஏற்படக்கூடிய நஷ்டங்களுக்கு அரசால் எவ்வித நஷ்டஈடும் வழங்கப்பட மாட்டாது.

34) வழங்கப்பட்ட குத்தகை உரிமத்திற்கு பொதுமக்கள் மற்றும் அரசு துறை மூலம் கடுமையான ஆட்சேபம் இருப்பின் பொது நன்மையை கருதி குத்தகையை ரத்துச் செய்ய நேரிட்டால் அதனால் ஏற்படும் இழப்பிற்கு ஈடுகோர குத்தகைதாரருக்கு உரிமை இல்லை.

35) குத்தகைதாரர் குவாரியை வேறு யாருக்கும் மாற்றவோ உள்குத்தகைக்கு விடவோ கூடாது. அப்படி ஏதாவது செய்திருப்பது தெரிய வந்தால் மேற்படி குத்தகை ரத்துச்செய்யப்படுவதுடன் குத்தகைதாரர் செலுத்திய தொகையும் அரசுக்கு ஆதாயம் செய்யப்படும்.

36) குத்தகைதாரர், புவியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநர் அலுவலகத்தில் அரசு குறிப்பிட்ட படிவத்தில் அனுப்புகைச் சீட்டுக்களை அச்சிட்டு சமர்ப்பிக்க வேண்டும். குத்தகைதாரர் சிறுகனிமம் எடுத்து செல்லும் வாகனத்துடன் அனுப்புகைச் சீட்டு கொடுத்து அனுப்ப வேண்டும். இந்நடைச்சீட்டை இரு பிரதிகள் அச்சிட்டு வரிசை எண்ணிட்டு தாங்கள் உத்தேசமாக எடுக்க இருக்கும் லோடுகளுக்கு லோடு ஒன்றுக்கு ஒரு சீட்டு வீதம் கணக்கிட்டு அதற்குரிய சீனியரேஜ் தொகையினை செலுத்திய பின்னர், கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநரிடம் அனுப்புகைச்சீட்டு மற்றும் மொத்த இசைவாணைச் சீட்டு ஆகியவற்றில் உரிய முத்திரையும் கையொப்பமும் பெற்றபின்பே பயன்படுத்த வேண்டும்.

37) ஒப்புதல் பெறப்படாத அனுப்புகைச்சீட்டுடன் கனிமம் கொண்டு செல்லும் வாகனங்கள் அதிலுள்ள சிறுகனிமத்தை முறையற்ற வகையில் எடுத்துச்செல்வதாக கருதப்பட்டு உரிய சட்டத்தின்படி உரிய அலுவலர்களால் கைப்பற்றப்பட்டு அபராதம் விதிக்கப்படும்.

38) புவியியல் மற்றும் சுரங்கத்துறை அலுவலர்கள், காவல் துறையினர் அல்லது வருவாய்த்துறை அலுவலர்கள் முதலானோர் தணிக்கை செய்யும்போது உரிய கணக்குகள் மற்றும் அனுப்புகைச் சீட்டு முதலானவைகளை குவாரி குத்தகை உரிமம் பெற்ற குத்தகைதாரர் காண்பிக்க வேண்டும்.

39) அரசு அலுவலர்கள் தணிக்கை செய்யும் போது சிறுகனிமங்கள் கொண்டு செல்லும் வாகனங்களை தணிக்கைக்கு உட்படுத்த வாகன ஓட்டுனர்களை குத்தகைதாரர்கள் அறிவுறுத்த வேண்டும்.

40) அனுப்புகைச்சீட்டில் உள்ள கலங்கள் பூர்த்தி செய்யப்படாமலோ அல்லது தவறாக எழுதப்பட்டு வாகனங்களுக்கு கொடுக்கப்பட்டிருந்தாலோ சிறுகனிமம் கொண்டு செல்லும் வாகன உரிமையாளருக்கு அபராதம் மற்றும் குற்றவியல் நடவடிக்கை எடுக்கப்படும். மேலும், குவாரி குத்தகையை ரத்து செய்ய நடவடிக்கை மேற்கொள்ளப்படும்.

41) குத்தகைதாரர் ஒவ்வொரு நாளும் குவாரியில் எவ்வளவு சிறுகனிமங்கள் வெட்டி எடுக்கப்பட்டது என்பதையும் எந்த அளவு கனிமங்கள் லாரி, வண்டி மூலம் வெளியே அனுப்பப்பட்டது என்ற விவரத்தையும் காட்டும் பதிவேடு பராமரிக்க வேண்டும். குவாரி குத்தகை சம்பந்தமான இதர பதிவேடுகளை பராமரிக்க வேண்டும்.

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42) அரசு மற்றும் மாவட்ட ஆட்சியரால் குவாரி குத்தகை உரிமம் சம்பந்தமாக ஏற்படுத்தப்பட்டுள்ள மற்றும் அவ்வப்போது ஏற்படுத்தப்படும் சட்ட திட்டங்களுக்கும், நிபந்தனைகளுக்கும் குத்தகைதாரர் கட்டுப்பட்டு நடக்க வேண்டும். குத்தகை காலத்திலோ அல்லது அதற்குபின்னரோ கிராமம் தவறி குத்தகையை பயன்படுத்தியதினால் ஏற்படும் சகல நஷ்டங்களுக்கும் குத்தகைதாரர்கள் பொறுப்பேற்க வேண்டும். இதற்காக விதிக்கப்படும் அபராதம் மற்றும் குற்றவியல் நடவடிக்கைக்கு கட்டுப்பட்டு நடக்க வேண்டும்.

43) குத்தகை நிபந்தனை மீறப்பட்டால் குத்தகையை ரத்துச் செய்யவோ செய்யப்பட்ட தவறுகளுக்கு குத்தகைதாரருக்கு தண்டனை விதிக்கவோ கிரிமினல் வழக்குதொடரவோ அரசுக்கு அதிகாரம் உண்டு. குத்தகை ரத்துச் செய்யப்பட்டால் காப்புத் தொகை உள்பட அனைத்து தொகைகளும் அரசுக்கு ஆதாயம் செய்யப்படும். வழங்கப்பட்ட குத்தகை உரிமத்தை எக்காரணத்திற்காவது ரத்துச்செய்யும் பட்சத்தில் அதனால் ஏற்படும் எவ்விட நஷ்டங்களுக்கும் அரசு பொறுப்பல்ல. குத்தகை எடுத்தவர் எந்த காரணத்தை முன்னிட்டும் தனக்கு இழப்பு ஏற்பட்டால் நஷ்டஈடு கேட்கக்கூடாது.

44) குத்தகை எடுத்தவர் குத்தகையை அனுபவிக்காமல் விட்டாலும், செலுத்தப்பட்ட குத்தகை தொகை எக்காரணத்தை முன்னிட்டும் திரும்ப வழங்கப்படமாட்டாது.

45) குவாரிகளின் எல்லைகள் பற்றி பிரச்சினைகள் ஏற்பட்டால் மாவட்ட ஆட்சியரின் தீர்ப்பே இறுதியானது.

46) கற்குவாரி குத்தகை உரிமம் வழங்கப்பட்ட பின்னர் அக்கற்குவாரியின் ஏதாவது ஒரு பகுதியில் வரலாற்று முக்கியத்துவம் வாய்ந்த புராதானக்கால கல்வெட்டுக்கள், சிற்ப வடிவமைப்புகள் போன்றவைகள் காணப்பட்டால் அது குறித்து அரசுக்கு தகவல் தரவேண்டும். மேலும், அப்பகுதியில் கற்கள் உடைப்பது நிறுத்தப்பட்டு அப்புராதன சின்னங்கள் பாதுகாக்கப்பட வேண்டும்.

47) டெண்டரில் கோரப்படும் புல எண்களின் பேரில் எவையேனும் நீதிமன்றத்தின் ஆணை / தடையாணை முதலானவை நீதிமன்றத்தில் பெறப்பட்டதாக தெரியவந்தால் அவைகள் மீது குத்தகை உரிமம் வழங்குவதில் மாவட்ட ஆட்சியரின் முடிவே இறுதியானது.

48) குத்தகைதாரர் குத்தகை வழங்கப்பட்ட குவாரி முகப்பில் குவாரியின் புல எண் பரப்பு குத்தகைதாரர் பெயர் குத்தகை வழங்கப்பட்ட செயல்முறை ஆணை எண் குத்தகை தொகை, குத்தகை காலம் போன்ற விவரங்கள் குறிக்கப்பட்ட தகவல் பலகையை தனது சொந்த செலவில் வைத்து குத்தகை காலம் முழுதும் பராமரிக்க வேண்டும்.

49) குத்தகைதாரர் குவாரியின் எல்லைகளை தெளிவாக தெரியும்படி வண்ணமிட்ட எல்லைக் கற்களை (DGPS) முறையில் அளவீடு செய்து ஜூன்றி அடையாளமிட்ட பின்பே குவாரி செய்ய வேண்டும். எல்லை கற்களை குத்தகை காலம் முழுவதும் தனது சொந்த செலவில் நன்கு பராமரிக்க வேண்டும்.

50) குத்தகைக்கு வழங்கப்பட்ட கல்குவாரிகளில் சாதாரண கற்கள், கட்டுக்கல், சக்கை கற்கள், ஜல்லி கற்கள் ஆகியவைகளை மட்டுமே குவாரி செய்ய வேண்டும் அயல் நாட்டிற்கு ஏற்றுமதி செய்வதற்கும் மெருகு ஏற்றுவதற்கும் பயன்படும் வடிவமைக்கப்பட்ட கற்களை உற்பத்தி செய்யக் கூடாது.

51) குவாரியில் வெடி வைத்து கற்களை உடைக்க அங்கீகாரம் பெற்ற வெடிபொருள் விற்பனையாளரிடம் (Licenced Explosive Dealer) வெடிபொருட்களை கொள்முதல் செய்து சான்று பெற்ற வெடி வெடிப்பவரைக்(Licenced shot Firer) கொண்டு அனைத்து பாதுகாப்பு நிபந்தனைகளையும் கடைபிடித்து வெடிகளை வெடிக்க வைக்க வேண்டும்.

52) குவாரியில் சாதாரண ஏர் கம்ப்ரசர்களை கொண்டு துளையிட்டு வெடிவைக்க வேண்டும். ஆழ்துளை கிணறு உபகரணங்களை (Rig Bore) கொண்டு துளையிட்டு வெடிவைக்ககூடாது. அருகிலுள்ள விவசாய நிலங்கள், பொதுச்சொத்துக்கள் மற்றும் பொதுமக்கள் ஆகியோருக்கு எவ்வித பாதிப்பும் ஏற்படாமல் குவாரி பணி செய்ய வேண்டும்.

53) அரசு / ஆணையர் புவியியல் மற்றும் சுரங்கத்துறை மற்றும் மாவட்ட ஆட்சியரால் இது தொடர்பாக ஏற்படுத்தப்பட்டுள்ள மற்றும் அவ்வப்போது ஏற்படுத்தப்படும் சட்டதிட்டங்களுக்கும் நிபந்தனைகளுக்கும் குத்தகைதாரர் கட்டுப்பட்டு நடக்க வேண்டும்.

54) 1961ஆம் ஆண்டின் மெட்டாலிபெரஸ் மைன்ஸ் ரெகுலேஷன்ஸ், 1936 ஆம் ஆண்டின் சம்பளம் வழங்குதல் சட்டம், 1884 ஆம் ஆண்டின் இந்திய வெடிபொருட்கள் சட்டம், 1864 ஆம் அண்டு குறைந்தபட்ச ஊதியச்சட்டம் ஆகியவற்றிற்கு உட்பட்டு குத்தகைதாரர் கனிமங்கள் வெட்டி எடுத்து வெளியேற்ற வேண்டும்.

55) குவாரியில் வேலை செய்யும் தொழிலாளர்கள் மற்றும் இதர நபர்களுக்கு விபத்து ஏற்படின் அதற்கான முழுப் பொறுப்பையும் குத்தகைதாரரே ஏற்க வேண்டும். அதற்கு எவ்வகையிலும் அரசு பொறுப்பாகாது. மேலும், குவாரி தொழிலாளர்களை அரசின் காப்பீட்டு திட்டத்திலும் தொழிலாளர் நல வாரியத்தில் பதிவு செய்திடல் வேண்டும்.

56) குவாரி தொடர்பான அனைத்து பணிகளும் சுற்றுச்சூழல் இசைவாணையில் தெரிவிக்கப்பட்ட காலத்தில் மட்டுமே செயல்படுத்தப்பட வேண்டும்.

57) சாதாரண கற்குவாரி உரிமம் தொடர்பான டெண்டர் / ஏலம் உறுதி செய்யப்பட்ட விண்ணப்பதாரர் உரிய குவாரி குத்தகை பகுதிக்கு மாவட்ட வன அலுவலர், கிருஷ்ணகிரி / ஒசூர் அவர்களிடமிருந்து தடையின்மை சான்று பெற்று சமர்ப்பிக்க வேண்டும்.

58) அங்கீகரிக்கப்பட்ட சுரங்க திட்டத்தின்படி குவாரி பணி செய்யப்பட வேண்டும். குத்தகை காலத்தில் அங்கீகரிக்கப்பட்ட சுரங்க திட்டத்தில் குறிப்பிட்ட அளவை விட அதிகமான கனிமத்தை குவாரி செய்ய வேண்டியிருப்பின், திருத்தப்பட்ட சுரங்க திட்டம் சமர்பித்து அங்கீகாரம் பெற்று அதற்கான சுற்றுச் சூழல் தடையின்மை சான்று சமர்பித்த பின்பே அதனை செய்ய வேண்டும்.

59) குவாரி ஆரம்பிப்பது தொடர்பான அறிவிப்பை (Notice of opening) இந்திய அரசு பெங்களூரு மண்டல சுரங்க பாதுகாப்பு துறை இயக்குநர் அவர்களுக்கு சமர்பிக்க வேண்டும்.

60) குவாரியில் அங்கீகாரம் பெற்ற மைன்ஸ் மேனேஜர்/மைன்ஸ் மேட்/பிளாஸ்டர் ஆகியோர்களை பணியமர்த்திய பின்பே குவாரிப் பணியை தொடங்க வேண்டும்.

61) குவாரிப் பகுதியில் மைன்ஸ் மேட் கண்காணிப்பிலேயே வெடிவைத்து வெடிக்கும் பணியை செய்ய வேண்டும்.

62) குவாரிப் பகுதியில் விபத்து ஏதும் ஏற்பட்டால் அதனை உடனடியாக இந்திய அரசு பெங்களூரு மண்டல சுரங்க பாதுகாப்பு துறை இயக்குநர் அவர்களுக்கும் கிருஷ்ணகிரி மாவட்ட ஆட்சியர் அவர்களுக்கும் தெரிவிக்க வேண்டும்.

அட்டவணை - சாதாரண கற்குவாரி பட்டியல்

(1.) கிருஷ்ணகிரி வருவாய் கோட்டம்

கிருஷ்ணகிரி வட்டம்

வ. எண்	கிராமம்	புல எண்கள்	மொத்த பரப்பு	குவாரி குத்தகை வழங்கும் பரப்பு	வகைப்பாடு	குத்தகை உரிமம் காலம்
(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
1	ஜீஞ்சுப்பள்ளி	169(பகுதி)	8.56.00	2.00.00	தி.ஏ.த.பாறை	10
2	ஜீஞ்சுப்பள்ளி	197/2(பகுதி)	1.77.00	1.20.00	தி.ஏ.த தரிசு	10

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(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
3	பில்லனகுப்பம்	278	2.08.50	2.08.50	தீ.ஏ.த பாறை	10
			பர்கூர் வட்டம்			
4	சூலாமலை	54 (பகுதி-3)	16.45.0	1.40.00	தீ.ஏ.த பாறை	10
			(ii) ஓசூர் வருவாய் கோட்டம்.			
			ஓசூர் வட்டம்			
5	பஞ்சாட்சிபுரம்	603/1 (பகுதி-சி)	21.20.50	1.30.00	தீ.ஏ.த தரிசு	5
6	பஞ்சாட்சிபுரம்	603/1 (பகுதி-டி)	21.20.50	2.00.00	தீ.ஏ.த தரிசு	5
7	கோபனப்பள்ளி	220/1 (பகுதி-1)	16.76.00	3.00.00	தீ.ஏ.த தரிசு	10
8	கோபனப்பள்ளி	220/1 (பகுதி-2)	16.76.00	3.00.00	தீ.ஏ.த தரிசு	10
9	கோபனப்பள்ளி	220/1 (பகுதி-3)	16.76.00	3.00.00	தீ.ஏ.த தரிசு	10
10	கோபனப்பள்ளி	220/1 (பகுதி-4)	16.76.00	2.00.00	தீ.ஏ.த தரிசு	10
11	கோபனப்பள்ளி	381 (பகுதி-1)	4.61.50	1.30.00	தீ.ஏ.த தரிசு	10
12	கோபனப்பள்ளி	381 (பகுதி-2)	4.61.50	1.50.00	தீ.ஏ.த தரிசு	10
			குளகிரி வட்டம்			
13	காமன்தொட்டி	616/3 (பகுதி-2)	7.66.50	2.75.00	தீ.ஏ.த தரிசு	5
14	காமன்தொட்டி	653/1(பகுதி)	7.56.00	3.35.00	தீ.ஏ.த தரிசு	5
15	காமன்தொட்டி	754 & 760 (பகுதி-6)	36.46.50	4.00.00	தீ.ஏ.த மலை	10
16	வெங்கடேசபுரம்	86-(பகுதி-1)	60.80.00	2.50.00	தீ.ஏ.த கரடு	5
17	வெங்கடேசபுரம்	86-(பகுதி-2)	60.80.00	2.00.00	தீ.ஏ.த கரடு	10
18	வெங்கடேசபுரம்	86-(பகுதி-3)	60.80.00	2.00.00	தீ.ஏ.த கரடு	5
19	பி.எஸ்.திம்மசந்திரம்	88/1 (பகுதி-3)	12.79.00	4.50.00	தீ.ஏ.த பாறை	10

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(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
20	தோரிப்பள்ளி	72(பகுதி)	9.71.00	0.65.00	தீ.ஏ.த பாறை	10
		87/1(பகுதி)	8.77.00	0.95.00	தீ.ஏ.த பாறை	
			மொத்தம்	1.60.00		
21	துப்புகானப்பள்ளி	420-(பகுதி-1)	46.61.00	4.00.00	தீ.ஏ.த கரடு	10
22	துப்புகானப்பள்ளி	420-(பகுதி-3)	46.61.00	4.60.00	தீ.ஏ.த கரடு	10
23	துப்புகானப்பள்ளி	420-(பகுதி-4)	46.61.00	4.50.00	தீ.ஏ.த கரடு	10
24	சென்னப்பள்ளி	327/1 (பகுதி-1)	38.78.00	2.45.00	தீ.ஏ.த கரடு	10
25	சென்னப்பள்ளி	327/1 (பகுதி-2)	38.78.00	2.45.00	தீ.ஏ.த கரடு	10
		தேன்கனிக்கோட்டை வட்டம்				
26	தாரவேந்திரம்	320/1 (பகுதி)	2.23.00	1.70.50	தீ.ஏ.த தரிசு	10
27	நாகமங்கலம்	629 (பகுதி)	188.50.00	3.20.50	தீ.ஏ.த கல்லாங் குத்து	10

கிருஷ்ணகிரி,
10-03-2022.

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தமிழ்நாடு எழுதுபொருள் மற்றும் அச்சுத்துறை ஆணையரால் சேலம் அரசினர் இளை அச்சகத்தில் அச்சிடப்பட்டு மாவட்ட ஆட்சியரால் வெளியிடப்பட்டது.

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ANNEXURE – III

துணை இயக்குநர் அலுவலகம் புவியியல் மற்றும் சுரங்கத்துறை

29 JUN 2022

வளம் பொருவோர் கிருஷ்ணகிரி

வனம் காப்போம்

தமிழ்நாடு வனத்துறை

அனுப்புதல்

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பெறுதல்

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அய்யா,

பொருள் : கனிமங்களும் குவாரிகளும் – கிருஷ்ணகிரி மாவட்டம் – அரசு புலங்களில் உரிமம் முடிவடைந்த குவாரிகள் மற்றும் புதிய குவாரிகளை டெண்டர் மற்றும் பொது ஏலத்தில் கொண்டுவர வனப்பகுதி மற்றும் சரணாலயத்திற்கு உள்ள தொலைவு விவரம் மற்றும் இதர விவரங்கள் கோரியது – தொடர்பாக.

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4. இவ்வலுவலக ந.க.எண். 261/2022/எல், நாள்.10.02.2022

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பார்வையின் கடிதங்களில் தெரிவிக்கப்பட்ட அரசு புலங்களில் உரிமம் முடிவுற்ற குவாரிகள் மற்றும் புதிய குவாரிகளுக்கு டெண்டர் மற்றும் பொது ஏலத்தில் கொண்டுவர, வனப்பகுதி மற்றும் சரணாலயப் பகுதியிலிருந்து உள்ள தொலைவு விவரம் கோரப்பட்டுள்ளது. இது தொடர்பான விவரம் பின்வருமாறு தெரிவிக்கப்படுகிறது.

குவாரி அனுமதிக்கான வனத்துறையின் குறிப்புரையை முறையே வனப்பாதுகாவலர் மற்றும் முதன்மை தலைமை வனப்பாதுகாவலர் அவர்களின் அங்கீகாரத்தின்படியே, வனஉயிரின காப்பாளரால் வழங்கப்படுகிறது. எனவே, இவ்வரைவு வனத்துறையின் தடையின்மை ஆவணமாக கருதிடலாகாது. மேலும், பார்வையின் கடிதத்தில் கேட்டவாறு வனத்துறையின் குறிப்புரையளிப்பது குறித்து முன்மொழிவு / பரிந்துரை கடிதம் பார்வை 4ல் கண்ட இவ்வலுவலக கடிதத்தில் வனப்பாதுகாவலர், தருமபுரி மூலமாக முதன்மை தலைமை வனப்பாதுகாவலர் அவர்களுக்கு சமர்ப்பிக்கப்பட்டுள்ளது. அதன்படி, அரசு புலங்களில் குவாரி அமைக்க அனுமதி கோரப்பட்ட இடத்தின் தூரம் தகவலின்பொருட்டு பின்வருமாறு தெரிவிக்கப்படுகிறது.

அட்டவணை 1

டெண்டர் / பொது ஏலம் விடுவதற்கு பரிந்துரை செய்யப்படும் குவாரி பகுதிகள் விவரம்

Sl. No.	Village	Classification of the proposed site (As per Revenue Record)	S.F. No.	Extent Proposed for Quarry Lease	GPS coordinates of the proposed sites		Distance from nearest Reserved Forest (km)	Distance from CNWLS (km)
					Latitude	Longitude		
	Krishnagiri Taluk							
1	Jinjupalli	Un-assessed waste - Paral	169 (Part)	2.00.00	12.54916	78.15410	3.4 Pethathalapalli	20 Udedurgam
2	Jinjupalli	Un-assessed waste - Tharisu	197/2 (Part)	1.20.00	12.55956	78.15585	4 Pethathalapalli	20.4 Udedurgam
3	Billanakuppam	Un-assessed waste - Parai	278	2.08.50	12.59999	78.16812	3.2 Naralapalli Extn.	23 Udedurgam
	Bargur Taluk							
4	Shoolamalai	Un-assessed waste - Parai	54-Part-3	1.40.00	12.51168	78.25921	7.4 Pethathalapalli	31.2 Udedurgam
	Shoolagiri Taluk							
5	Kamandoddi	Un-assessed waste - Tharisu	616/3 (Part-2)	2.75.00	12.66910	77.94928	2.4 Settipalli	14.2 Udedurgam
6	Kamandoddi	Un-assessed waste - Tharisu	653/1 (Part)	3.35.00	12.66448	77.94973	2.8 Settipalli	13.7 Udedurgam
7	Kamandoddi	Un-assessed waste-Malai	754 & 760 (Part-VI)	4.00.00	12.65973	77.96080	2.7 Settipalli	13.3 Udedurgam
8	Kamandoddi	Un-assessed waste - Tharisu	1276 (Part)	2.00.00	12.66421	77.96741	2.2 Settipalli	13.9 Udedurgam
9	Venkatesapuram	Un-assessed waste-Karadu	86-Part-1	2.50.00	12.75552	77.94513	1.05 Athimugam II	24 Udedurgam
10	Venkatesapuram	Un-assessed waste-Karadu	86-Part-2	2.00.00	12.75586	77.94660	1.05 Athimugam II	24.1 Udedurgam
11	Venkatesapuram	Un-assessed waste-Karadu	86-Part-3	2.00.00	12.75397	77.94352	1.04 Athimugam II	23.8 Udedurgam
12	B.S. Thimmasandiram	Un-assessed waste-Parai	88/1 (Part-3)	4.50.00	12.84070	77.95736	1.01 Amuthugondapalli	33.5 Udedurgam
13	Doripalli	Un-assessed waste-Parai	72(Part)	0.65.00	12.71262	77.95474	2.2 Settipalli	19.3 Udedurgam
			87/1(Part)	0.95.00				
			Total	1.60.00				
14	Thuppuganapalli	Un-assessed waste-Karadu malai	420-Part-1	4.00.00	12.62856	77.95266	4.5 Sanamavu	9.9 Udedurgam
15	Thuppuganapalli	Un-assessed waste-Karadu malai	420-Part-3	4.60.00	12.62604	77.95370	4.8 Sanamavu	9.7 Udedurgam
16	Thuppuganapalli	Un-assessed waste-Karadu malai	420-Part-4	4.50.00	12.62499	77.95265	4.7 Sanamavu	9.6 Udedurgam

PLGR

Sl. No.	Village	Classification of the proposed site (As per Revenue Record)	S.F. No.	Extent Proposed for Quarry Lease	GPS coordinates of the proposed sites		Distance from nearest Reserved Forest (km)	Distance from CNWLS (km)
					Latitude	Longitude		
17	Chennapalli	Un-assessed waste - Karadu	327/1 - Part-1	2.45.00	12.62504	78.05404	2 Errandapalli	14.3 Udedurgam
18	Chennapalli	Un-assessed waste - Karadu	327/1 - Part-2	2.45.00	12.62400	78.05477	2 Errandapalli	14.3 Udedurgam
	Hosur Taluk							
19	Mugalur	Un-assessed waste	232/2 (Part-2)	4.85.00	12.62273	77.81719	5.6 Sanamavu	11.6 Udedurgam
20	Panchakshipuram	Un-assessed waste	603/1 (Part-C)	1.30.00	12.59781	77.79278	8.6 Sanamavu	11.6 Udedurgam
21	Panchakshipuram	Un-assessed waste	603/1 (Part-D)	2.00.00	12.59668	77.79277	8.6 Sanamavu	11.5 Udedurgam
22	Gobanapalli	Un-assessed waste	220/1 (Part-1)	3.00.00	12.63255	77.81140	6.4 Sanamavu	13 Udedurgam
23	Gobanapalli	Un-assessed waste	220/1 (Part-2)	3.00.00	12.63169	77.81128	6.4 Sanamavu	12.8 Udedurgam
24	Gobanapalli	Un-assessed waste	220/1 (Part-3)	3.00.00	12.63221	77.81357	6.2 Sanamavu	12.8 Udedurgam
25	Gobanapalli	Un-assessed waste	220/1 (Part-4)	2.00.00	12.63105	77.81268	6.3 Sanamavu	12.7 Udedurgam
26	Gobanapalli	Un-assessed waste	381 (Part-1)	1.30.00	12.63489	77.81198	6.4 Sanamavu	13.2 Udedurgam
27	Gobanapalli	Un-assessed waste	381 (Part-2)	1.50.00	12.63391	77.81214	6.4 Sanamavu	13.1 Udedurgam
	Denkanikottai Taluk							
28	Hosapuram	Un-assessed waste	346 (Part), 353, 354/2	1.97.50	12.64563	77.81959	6.1 Sanamavu	13.8 Udedurgam
29	Daravendiram	Un-assessed waste - Podu	320/1 (Part)	1.70.50	12.56214	77.68326	6.5 Jawalagiri	6.5 Jawalagiri
			320/2	0.29.50				
			Total	2.00.00				
30	Nagamangalam	Un-assessed waste - Kallankuthu	629 (Part)	3.20.50	12.57400	77.91418	3.9 Udedurgam	3.9 Udedurgam

மேற்கண்ட அட்டவணை ல் உள்ள குவாரி பகுதிகள், காவேரி வடக்கு வனஉயிரின சரணாலயத்திற்கான சூழல் உயர்திரன் மண்டலத்திற்குள் (Eco-Sensitive Zone) வருவதில்லை.

DLGR

அட்டவணை 2

டெண்டர் / பொது ஏலம் மூலம் குத்தகை அனுமதி வழங்குவதை தற்காலிகமாக நிறுத்திவைக்க பரிந்துரை செய்யப்படும் குவாரிகளின் விவரப் பட்டியல்

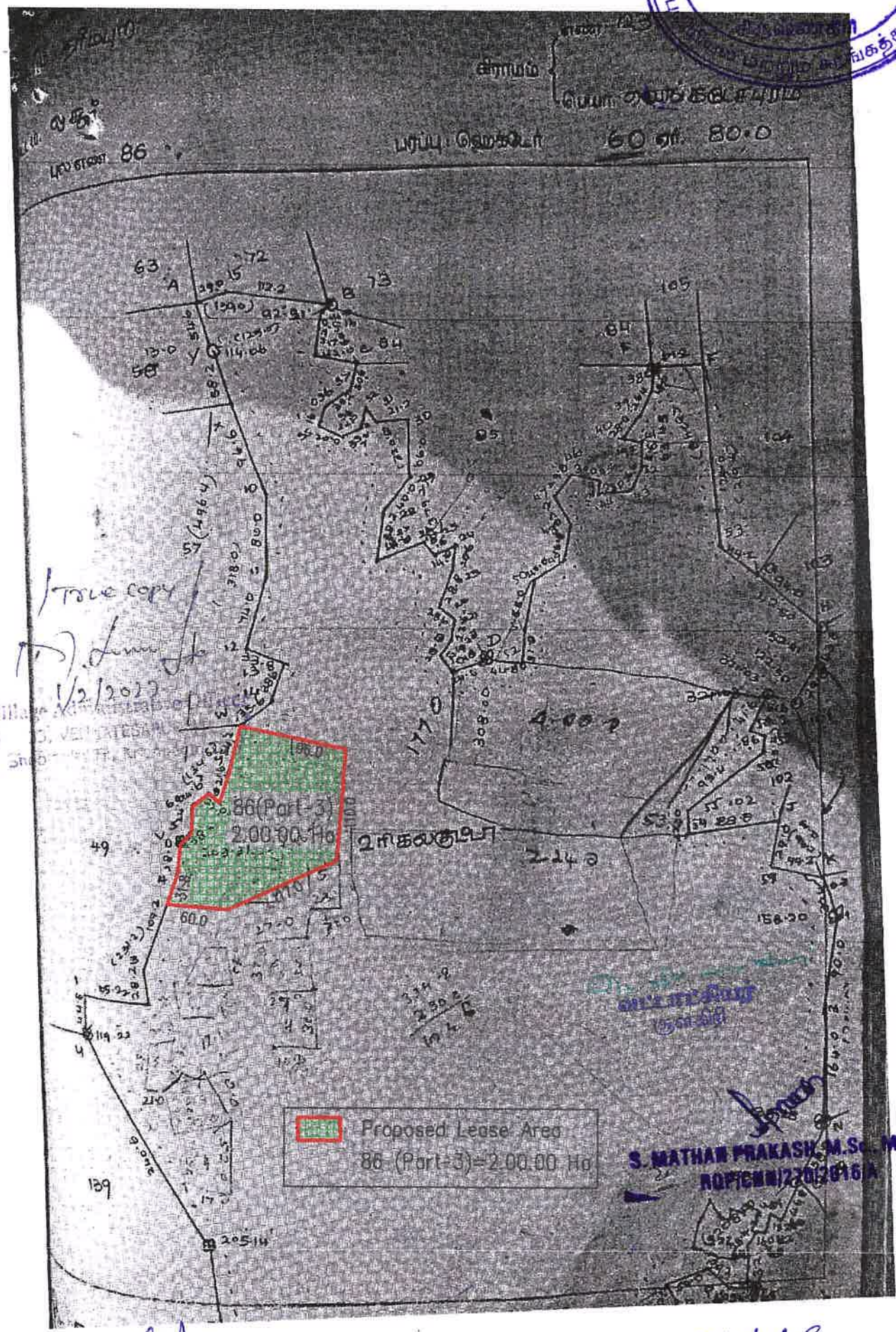
Sl. No.	Village	Classification of the proposed site (As per Revenue Record)	S.F.No.	Extent Proposed for Quarry Lease	GPS coordinates of the proposed sites		Distance from nearest Reserved Forest (km)	Distance from CNWLS (km)
					Latitude	Longitude		
	Krishnagiri Taluk							
1	Kallukurukki	Govt. Poramboke – Ko Malai .	701 (Part-II)	1.00.00	12.55536	78.22426	3.2 Kundarapalli II	27.7 Udedurgam
2	Kallukurukki	Govt. Poramboke – Ko Malai	701 (Part-III)	1.00.00	12.55541	78.22483	3.2 Kundarapalli II	27.8 Udedurgam
3	Kallukurukki	Govt. Poramboke – Ko Malai	701 (Part-IV)	0.90.00	12.55463	78.22316	3.2 Kundarapalli II	27.6 Udedurgam
4	Kallukurukki	Govt. Poramboke – Ko Malai	701 (Part-V)	3.50.00	12.55034	78.22850	3.9 Kundarapalli II	28.05 Udedurgam
5	Kallukurukki	Govt. Poramboke – Ko Malai	701 (Part-VI)	1.00.00	12.54704	78.22598	3.7 Pethathalapalli	27.8 Udedurgam
	Uthangarai Taluk							
6	Kettoor	Govt. Punjai - Poramboke	17/1	1.25.00	12.19712	78.53751	1.6 Onnakarai	65.4 Marandahalli
7	Thathanur		10//2	1.61.00	12.21405	78.53499	0.5 Onnakarai	64.6 Marandahalli
	Shoolagiri Taluk							
8	Mattampalli	Un-assessed waste-Karadu	52/1 (Part-1)	3.00.00	12.69400	78.06509	0.53 Kumbalam I	21 Udedurgam
9	Mattampalli	Un-assessed waste-Karadu	53/1 (Part-2)	1.90.00	12.69279	78.06464	0.64 Kumbalam I	20.9 Udedurgam
10	Marandapalli	Un-assessed waste-Parai	71/2	1.15.0	12.67734	78.05708	1.4 Thekkalapalli	19.1 Udedurgam

மேற்கண்ட அட்டவணை 2ல் குறிப்பிட்டுள்ள இடங்கள் குறித்து வனம் மற்றும் வனஉயிரின பாதுகாப்பு தொடர்பான கூடுதல் கவனம் மேற்கொள்ள வேண்டி உள்ளதாலும், மேலும் சில அம்சங்கள் தேவைப்படுவதால் அப்பகுதியை ஒட்டி அமைந்துள்ள இடங்களில் காப்பு நிலம் தொடர்பான முன்மொழிவுகள், பரிசீலனையில் உள்ளதாலும் இதுகுறித்த மேல் நடவடிக்கையினை துரிதப்படுத்திட இயலாத சூழ்நிலையில் உள்ளது. எனவே, அட்டவணை 2ல் உள்ள இவ்விடங்களின் டெண்டர் மற்றும் பொது ஏலத்தில் விடுவதை தற்சமயம் நிறுத்தி வைக்க பரிந்துரைக்கப்படுவதுடன், இவ்விவரம் தூரத்தை கணக்கிடும் பொருட்டே அனுப்பப்படுகிறது. குவாரி பணிகள் மேற்கொள்ள தனியாக துறைத்தலைவரிடமிருந்து, வனத்துறையின் தடைகுறித்த குறிப்புரை வழங்கப்படும் என அன்புடன் தெரிவித்துக்கொள்கிறேன்.

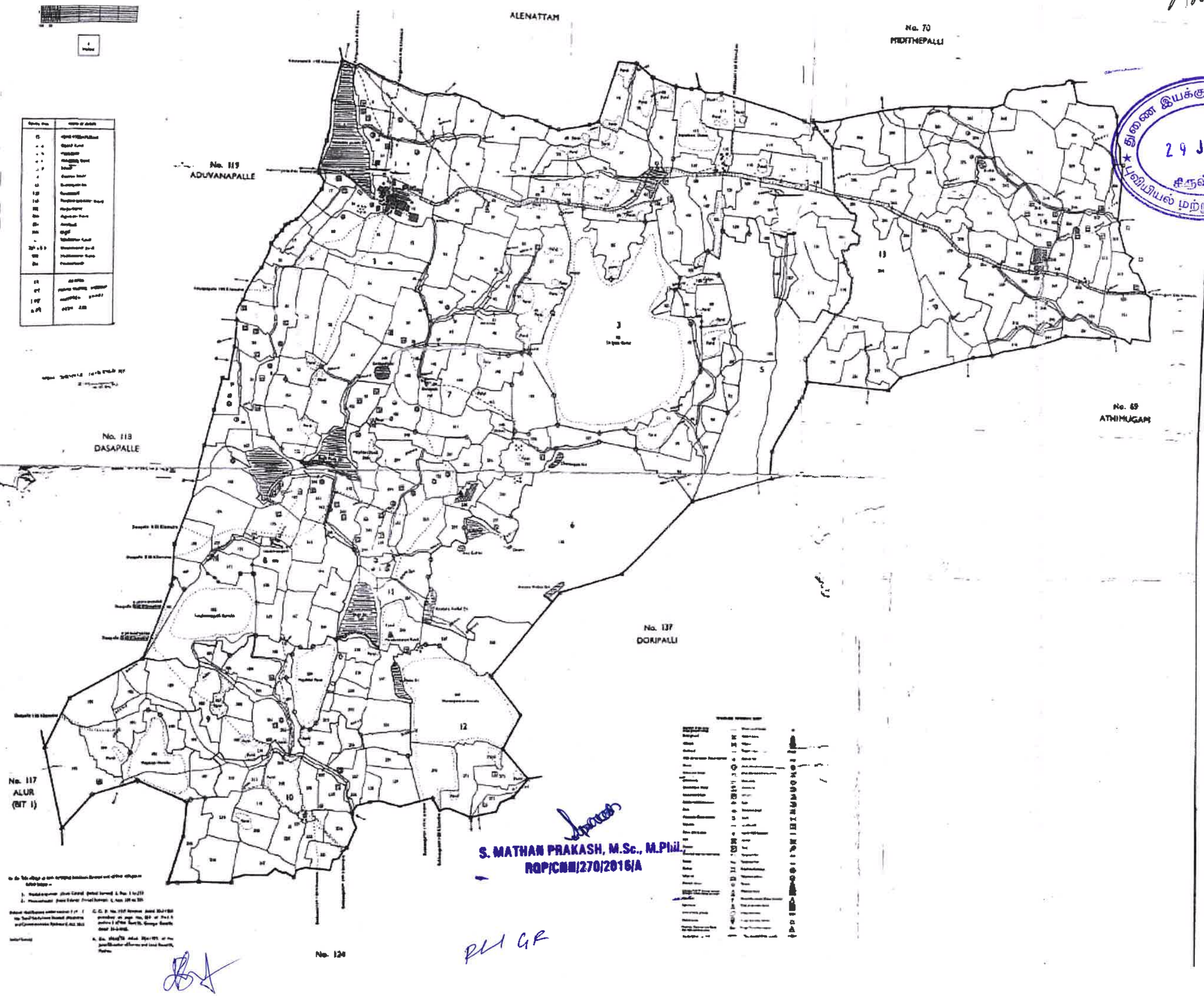
தங்கள் அன்புள்ள,
ஒம்/– க. கார்த்திகேயனி,
வனஉயிரினகாப்பாளர்,
ஒசூர் வனக்கோட்டம்.

//உ.நு.உ.ப//

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CHN/270/2015/A



ANNEXURE IV-B



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ANNEXURE – V

1430 ஆம் பசலியில் Krishnagiri மாவட்டம் Shoolagiri வட்டம் Venkateshpuram கிராமம் கணக்கு எண் 2

கிராமத்தில் வருடாவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாருடைய பெயரும் எண்ணும் அல்லது அநுபோக தாருடைய பெயர்.	சாகுபடி பயனின் பெயர்.	முதல் போகம்.				இரண்டாம் போகம்.					பயிர் செய்யப்பட்ட நிலங்களில் பயிரிடப்பட்ட விவரங்கள்: (1) பயிரை பருவம் (2) கலப்பு பயிர் (3) முதன்மை பயிர் என்று பதிவுசெய்ய வேண்டும் நீர் பாய்ச்சப்பட்ட விவரங்கள்.	கிழ்க்கண்டவகையில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பரப்பின் விவரங்கள் ஒவ்வொரு நில அளவு எண் அல்லது அதன் பகுதியில். (அ) வளம். (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலம். (இ) விவசாயம் மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம். (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும். (ஊ) விதைக்கப்பட்ட நிகர பரப்பில் சேர்க்கப்படாத மரவகைப் பயிர்களும் தோப்புகளும். (எ) நடப்புத் தரிசுகள் (ஏ) இதர தரிசு நிலங்கள்.	பயிர் பாதுகாப்பு குறிப்புகள்.
நில அளவு எண் (1)	உட்பிரிவு எண் (2)	பரப்பு. (3)	தீர்வை. (4)	ஒரு போகம் அல்லது இரு போகம். (5)	(6)	நிலத்தின் எந்த பகுதி யாரது சாகுபடியாகும் பயிரிடப்பட்டுள்ளதை. (7)	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை மாதத்தில் செய்யப்பட்டது. (8)	பயிரின் பெயர். (9)	பயிரான / அறுவடை யான பரப்பு (10)	உண்மையான பாய்ச்சல் ஆதாரம். (11)	விளைச்சல் அளவு விழுக்காடு. (12)	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை மாதத்தில் செய்யப்பட்டது. (13)	பயிரின் பெயர். (14)	பயிரான / அறுவடையான பரப்பு. (15)	உண்மையான பாய்ச்சல் ஆதாரம் (16)	விளைச்சல் அளவு விழுக்காடு. (17)	(18)	(18அ)	(19)
86		0.34															காடு		

True copy

1/12/2022

Village Administrative Officer
73, VENKATESAPURAM
Shoolagiri Tk, Krishnagiri Dt.

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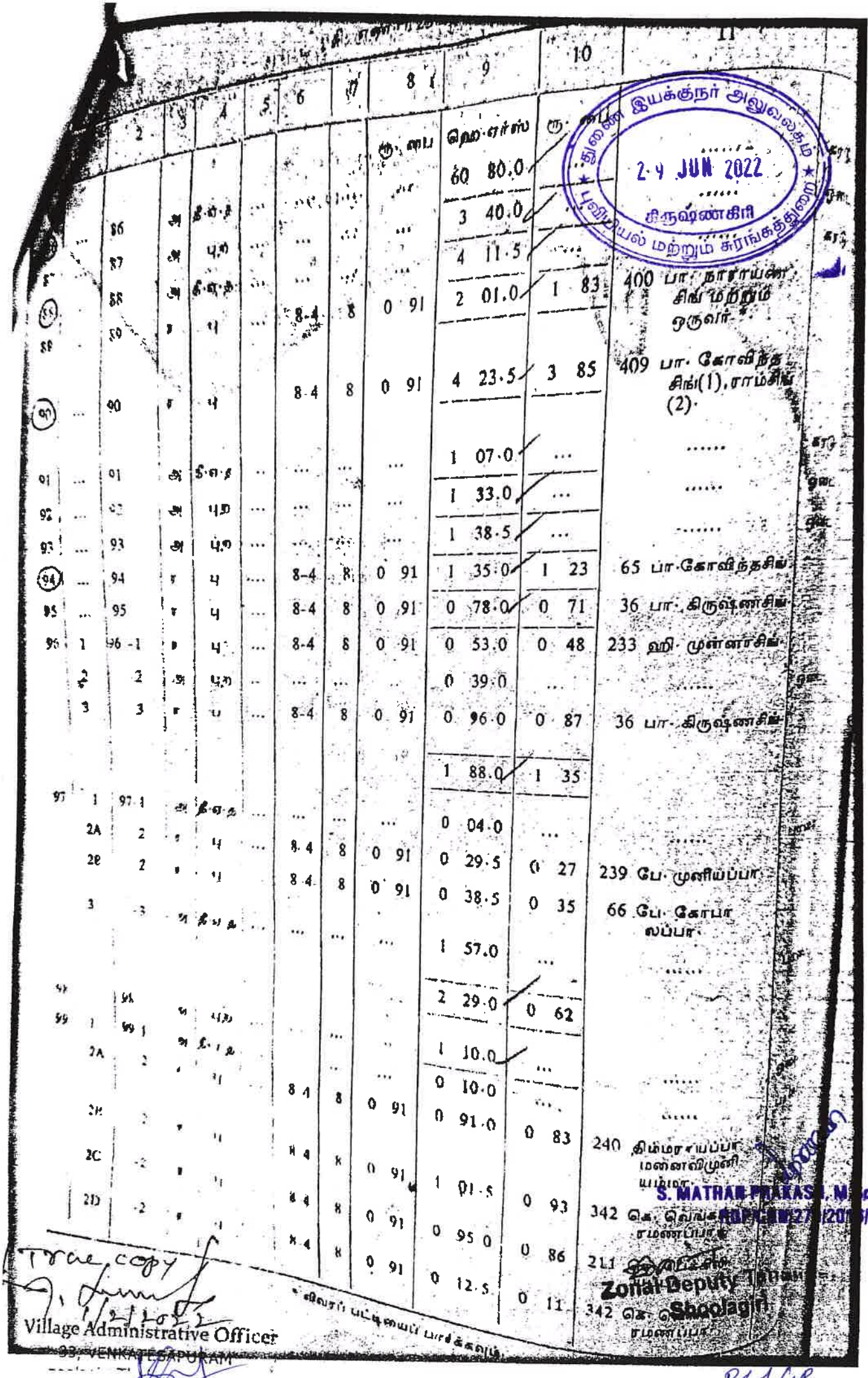

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								60 80.0		
	86	அ	தி.ம.நி	...	...	...	...	3 40.0		
	87	அ	புன	...	...	...	...	4 11.5		
	88	அ	தி.ம.நி	...	...	...	...			
	89	ர	ப	...	8-4	8	0 91	2 01.0	1 83	400 பா. நாராயண சிங் மற்றும் ஒருவர்
	90	ர	ப		8-4	8	0 91	4 23.5	3 85	409 பா. கோவிந்த சிங்(1), ராம்சிங் (2).
	91	அ	தி.ம.நி	...	...	...	...	1 07.0	...	.....
	92	அ	புன	...	...	...	...	1 33.0	...	.....
	93	அ	புன	...	...	...	...	1 38.5	...	.....
	94	ர	ப	...	8-4	8	0 91	1 35.0	1 23	65 பா.கோவிந்தசிங்
	95	ர	ப	...	8-4	8	0 91	0 78.0	0 71	36 பா. கிருஷ்ணசிங்
	96-1	ர	ப	...	8-4	8	0 91	0 53.0	0 48	233 ஹி. முன்னர்சிங்
	2	அ	புன	...	...	...	...	0 39.0	...	.....
	3	ர	ப	...	8-4	8	0 91	0 96.0	0 87	36 பா. கிருஷ்ணசிங்
								1 88.0	1 35	
	97-1	அ	தி.ம.நி	...	...	...	...	0 04.0	...	.....
	2	ர	ப	...	8-4	8	0 91	0 29.5	0 27	239 பே. முனியப்பா
	3	ர	ப		8-4	8	0 91	0 38.5	0 35	66 பே. கோபாலப்பா
		அ	தி.ம.நி	...	...	...	...	1 57.0	...	.....
	98							2 29.0	0 62	
	99-1	அ	தி.ம.நி							
	2A	ர	ப	...	...	...	...	1 10.0	...	.....
	2B	ர	ப		8-4	8	0 91	0 10.0	...	.....
	2C	ர	ப		8-4	8	0 91	0 91.0	0 83	240 திம்மராயப்பா மன்னவிமுனியம்மா.
	2D	ர	ப		8-4	8	0 91	1 01.5	0 93	342 கெ. வெங்கடரமணப்பா
		ர	ப		8-4	8	0 91	0 95 0	0 86	211 [illegible]
								0 12.5	0 11	342 கெ. [illegible] ரமணப்பா

* விவரர் பட்டியலைப் பார்க்கவும்

துணை இயக்குநர் அலுவலகம் 24 JUN 2022 திருவண்ணாமலை நிலவியல் மற்றும் சுரங்கத்துறை

True copy

11/2022

Village Administrative Officer
93, VENKATESAPURAM

S. MATHAN PRAKASH, M.Sc., M.Phil.
Zonal Deputy Tahsildar
Shoolagiri

தமிழ்நாடு तमिलनाडु TAMILNADU Rs500/-

04/04/2022 SR Enterprises Hosur

AL 970647

K.P. MURALIKRISHNAN
S.V.L.C. 12/2008/KGI
KRISHNAGIRI. TAMIL NADU.

PARTNERSHIP DEED

THIS DEED OF PARTENRSHIP made and executed on this the Fourth Day of April, Two Thousand and Twenty Two by and among:

1) Sri. Srikar Bharathy Son of Bharathy aged about 29 years residing at No.25, Santinagar West 2nd Cross, Hosur Krishnagiri District Tamil Nadu, Pin-635109 (Hereinafter to be called the **First Party** which term shall mean and include his heirs and successors); and

2) Sri. Rahul G R Son of Ramakrishna Reddy aged about 26 years residing at No.35, Gulakamale, Bengaluru-560082 (Hereinafter to be called the **Second Party** which term shall mean and include his heirs and successors)

WHEREAS the parties to this deed are desirous of forming themselves into Partnership for the purpose of carrying on the business of quarrying, mining, excavation, extraction, manufacture, process, purchase, sell, and deal in all kinds of stones, granite, lime stone, rocks and boulders and allied materials, under the name and style of **M/s. S R Enterprises**, upon the terms and conditions hereinafter contained.

RLGR

RLGR

1

NOW THIS DEED OF PARTNERSHIP WITNESSETH AS FOLLOWS:

1. NAME : The name of the Firm shall be **M/s. S R Enterprises** having its office at No.25, Santinagar West 2nd Cross, Hosur, Krishnagiri District, Tamil Nadu, Pin-635109 and such other place or places as may be mutually decided by the partners.

2. OBJECTS: The object of the partnership firm shall be to carry on business of quarrying, mining, excavation, extraction, manufacture, process, purchase, sell, and deal in all kinds of stones, granite, lime stone, rocks and boulders and allied materials.

3. DATE OF COMMENCEMENT: This Partnership is deemed to have been constituted on and from 4th April 2022.

4. CAPITAL:The capital of the partnership shall be Rs. 200,000.00 (Rupees Two Lacs Only) which shall be contributed by the partners in the following proportions :

Party	% of Share in Profits and Losses of the firm	Capital Contribution
First Party	50%	Rs. 100,000.00
Second Party	50%	Rs. 100,000.00
Total	100%	Rs. 200,000.00

Additional capital as and when required by the partnership shall be brought in by all the Partners as mutually agreed. This additional capital shall not have any impact on the share holding pattern of any of the Partners.

5. FURTHER CAPITAL : Further Capital for the Partnership Business, as and when required, shall be contributed by both the partners in equal shares or as may be agreed by the Partners mutually.

6. ACCOUNTS AND PROFITS: That the accounts of the firm shall be closed for the first time on 31st March 2023 and thereafter on 31st day of March of every year. The Partners shall cause a statement of Assets and Liabilities and Profit and Loss Accounts to be prepared as on the last working day of the year to ascertain the business results for the year and the financial condition of the firm as on the last day of the year.

7. MANAGING PARTNERS AND POWERS: All the parties shall be the working partners, responsible for the day to day affairs and administration of the firm and shall be vested with powers as may be required for the said purposes.

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8. REMUNERATION : The firm shall pay remuneration to the working partners as mentioned below :

a) The amount of remuneration payable to working partners shall be the amount of total remuneration deductible in the computation of income of the firm as provided in clause (V) of the Section 40 (b) of the Income Tax, Act 1961

b) The working partners shall be paid such remuneration for the services rendered subject to the limitation laid down in clause 8 (a) above.

c) The total remuneration calculated as per the clause 8(a) above, shall be paid equally to all the two partners.

d) The remuneration to which the partners are entitled may be credited to their respective current accounts at the end of the accounting period. All the four partners are however entitled to draw amounts against these anticipated credits at any time during the year, without being liable for the payment of any interest, provided such drawal does not exceed the final credit in the said account at the end of the accounting period. Any excess drawn should be paid back within reasonable time after the accounts are determined.

9. PROFIT AND LOSS : The Profits or Losses as computed in the manner prescribed in clause (6) shall be shared as per the ratios mentioned in clause (4) above.

10. BRANCH : Branch or branches may be opened anywhere in the world either in the name of the firm or under any other name or names as the partners may from time to time mutually agree upon and the branches so opened may be closed by mutual consent.

11. DURATION: The duration of the Partnership shall be one at WILL. In the event of any of the parties desiring to dissolve the firm, they shall give six months notice in writing on his intention to so dissolve the firm.

12. INTEREST : Capital account of the partners shall first be drawn up as at 4th day of April 2022 and on the first day of April every year thereafter. Each partner shall be entitled to interest at 12% p. a. or as may be decided mutually by both the partners.

13. LOANS: The partnership firm may borrow money from banks, financial institutions or others similar sources, on such terms and conditions as may be agreed and for this purpose partners are authorized to pledge, mortgage and hypothecate the assets of the firm and to sign all such documents as may be required from time to time.

14. BANK ACCOUNT OPENING AND OPERATION : The Bank Account or accounts may be opened in the name of the firm with any Bank of good

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repute and same shall be operated, singly without any limit, by the Party of the Fourth Part.

15. DRAWINGS: Drawings shall be made by the mutual consent of the Partners and as far as possible by crossed account payee cheques, and the drawings made by the partners shall not carry any interest.

29 JUN 2022

16. DUTIES OF THE PARTNERS :

a) Work whole heartedly to the greatest advantages and for the benefit of the Partnership and be just, faithfully and honest to the other partner. Each partner shall be diligently and intelligently in the interest of firm.

b) Give and render true, proper and satisfactory account and explanation to the other partners and also of all the dealings and transactions in respect of the partnership business and affairs thereof and.

c) Deposit forthwith all monies, cheques, hundies, negotiable instruments etc. received by him on firms accounts in the Bank of the firm.

17. RIGHT OF THE PARTNERS : The partners shall not without the written consent of the other, release compound or abandon any security to the firm without receiving the full amount thereof or lend any money or render services, otherwise than in the ordinary course of business of the firm or made themselves liable as bail or surety of any person or transfer or assign either absolutely or by declaration of trust by mortgage of their interest in the firm or does or knowingly permit anything to be done, whereby the properties of the firm are not exposed to danger.

The partners hereto may severally or in partnership with others carry on any business or businesses and this firm shall not have any right or interest in such business or businesses so carried as aforesaid.

18. PRIVATE DEBTS, COSTS AND ACTIONS : Each partner shall pay and discharge his private debts and engagements, whether present of future and keep indemnified the firm from all actions, costs, claims and demands in respect thereof, partnership property and other partner his estates and effects. That parties hereto also declare and affirm that insofar as the firm is concerned, all the transaction shall be in the name of firm alone, and any private dealing, if indulged in to by anyone of them, shall be at the costs and risk of the said individual in his private capacity, and the firm shall neither e liable nor has it any concern with an illegal and unauthorized commitment.

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19. PERSONAL LIABILITIES : No partners shall be liable for any personal liabilities of the Partners and the partnership properties and the firm shall not be liable for personal debts of any partners.

20. DEATH OF A PARTNER: The death of a partner shall not have effect of dissolving the firm. The surviving partners as the case may be, reconstitute the firm by taking in one nominee of the deceased partner /or legal heir of the outgoing partner on mutually agreeable terms.

21. RETIREMENT OF A PARTNER: That the partner may retire giving three month's notice to the firm of such intention. The retiring partner shall not be entitled to any share in goodwill/appreciation in the value of the assets of the firm. The accounts of the retiring partner shall be settled as per mutual understanding. The retiring partner has the liberty to declare a nominee to work as partner of the firm.

22. DISSOLUTION : That In the event of dissolution, the books of account shall be made upto date and including the date of dissolution and all the Partners shall realize the assets of the firm and apply the Proceeds thereof to pay off the liabilities, of the firm as on the date of dissolution, the surplus remaining after such settlement of liabilities shall be distributed among the partners in the proportion mentioned in the proportion mentioned in Clause. 10 above.

23. APPLICABILITY OF PARTNERSHIP ACT 1932: Except to the extent specifically stated in the aforesaid clauses, all the other provisions of the Indian Partnership Act, 1932 as modified from time to time shall govern the relationship between the partners in respect of this Firm.

24. ARBITRATION : In the events of any disputes arising between the parties herein, either with regard to carrying on of the business of the firm or generally arising out of this instrument of partnership either with regard to interpretation or implementation of any of the terms and conditions agreed upon, such dispute shall be settled by the Partners hereto by submitting them to arbitration to be carried out in accordance with the provisions of the Indian Arbitration Act, 1940 or any amendments thereof.

25. RESIDUARY : The partners hereby reserve the rights to add, alter, modify or delete all or any of the clauses and such alterations, additions, modifications and substitutions, which when reduced to writing and signed by all partners shall be deemed to form part of this deed of partnership and govern the relationship of the Partners in respect of this partnership firm.

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துணை இயக்குநர் அலுவலகம்
29 JUN 2022
கிருஷ்ணகிரி
புவியியல் மற்றும் சுரங்கத்துறை

IN WITNESS WHEREOF, the parties hereto have hereunto set and subscribed their respective hands the day and year first hereinabove written.

WITNESSES;

1. SRIKAR BHARATHY
First Party

2. RAHUL G R
Second Party

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CNM/270/2016/A

6

ANNEXURE – VII

आधार

இந்திய அரசாங்கம்
Unique Identification Authority of India
Government of India

பதிவு அடையாளம் / Enrolment No. : 2007/13215/44532

To
Srikar Bharathy
ஸ்ரீகர் பாரதி
S/O: Bharathy
DNO 25
SANTHINAGAR WEST 2 ND CROSS
HOSUR
Hosur
Hosur Krishnagiri
Tamil Nadu - 635109
8903900227

21/09/2013

KL267232673FT
26723267

உங்கள் ஆதார் எண் / Your Aadhaar No. :

5985 4199 8229

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

இந்திய அரசாங்கம்
Government of India

ஸ்ரீகர் பாரதி
Srikar Bharathy

DOB: 19/02/1993
Male

5985 4199 8229

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

இயக்குநர் அலுவலக
29 JUN 2022
AADHAAR

- ஆதார் அடையாளத்திற்கான சான்று குடியுரிமைக்கு அல்ல
- அடையாள சான்றை இணையதளம் மூலம் உறுதிப்படுத்திக் கொள்ளவும்.

INFORMATION

- Aadhaar is proof of identity, not of citizenship.
- To establish identity, authenticate online.

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும்.
- வருங்காலத்தில் அரசு மற்றும் அரசு சாரா சேவைகளை பயன்படுத்திக் கொள்ள ஆதார் உதவிகரமாக இருக்கும்.
- Aadhaar is valid throughout the country.
- Aadhaar will be helpful in availing Government and Non-Government services in future.

Unique Identification Authority of India

Address: S/O: Bharathy, DNO 25, SANTHINAGAR WEST 2 ND CROSS, HOSUR, Hosur, Krishnagiri, Hosur, Tamil Nadu, 635109

5985 4199 8229

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CHM/270/2016/A

ANNEXURE-VIII

भारत सरकार / GOVERNMENT OF INDIA
खान मंत्रालय / MINISTRY OF MINES
भारतीय खान ब्यूरो / INDIAN BUREAU OF MINES

अर्हताप्राप्त व्यक्ति के रुप में मान्यता प्रमाण पत्र
(खनिज रियायत नियमावली, 1960 के नियम 22सी के तहत)

CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON
(Under Rule 22C of Mineral Concession Rules, 1960)

श्री एस. माथन प्रकाश , 2/274, ईस्ट स्टीट, कुलरोकरनल्लूर पोस्ट, ओटपिडारम तालुक, तूतुकुडी डस्टीक्ट – 628 401, तमिलनाडू , जिनका फोटो और हस्ताक्षर ऊपर दिया हुआ है, तथा जिनहोंने अपनी अर्हता और अनुभव का संतोषजनक साक्ष्य दिया है, को खनन योजना तैयार करने हेतु खनिज रियायत नियमावली 1960 के नियम 22सी के तहत अर्हताप्राप्त व्यक्ति के रूप में मान्यता प्रदान की जाती है ।

Shri S. Mathan Prakash, 2/274, East Street, Kulasckaranallur Post, Ottapidaram Taluk, Thoothukudi District – 628 401, Tamilnadu, whose **Photograph and signature** is affixed herein above, having given satisfactory evidence of his qualifications & experience hereby **RECOGNISED** under Rule 22C of the Mineral Concession Rule, 1960 as a Qualified Person to prepare Mining Plans.

उनकी पंजीयन संख्या है
His registration number is **RQP /CNN/270/2016/A**

यह मान्यता 10 वर्षों की अवधि के लिए मान्यता है जो दिनांक 09.02.2026 को समाप्त होगी।
This recognition is valid for a period of 10 years ending on 09.02.2026.

उनके द्वारा प्रस्तुत खनन योजना में गलत जानकारी / दस्तावेज पाए जाने की स्थिती में यह प्रमाण पत्र वापस लिया जाएगा / निरस्त किया जाएगा।
This certificate will liable to be withdrawn / cancelled in the event of furnishing the wrong information / documents in the Mining Plan submitted by him.

स्थान/ Place : Chennai
दिनांक/ Date : 10.02.2016

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CNN/270/2016/A

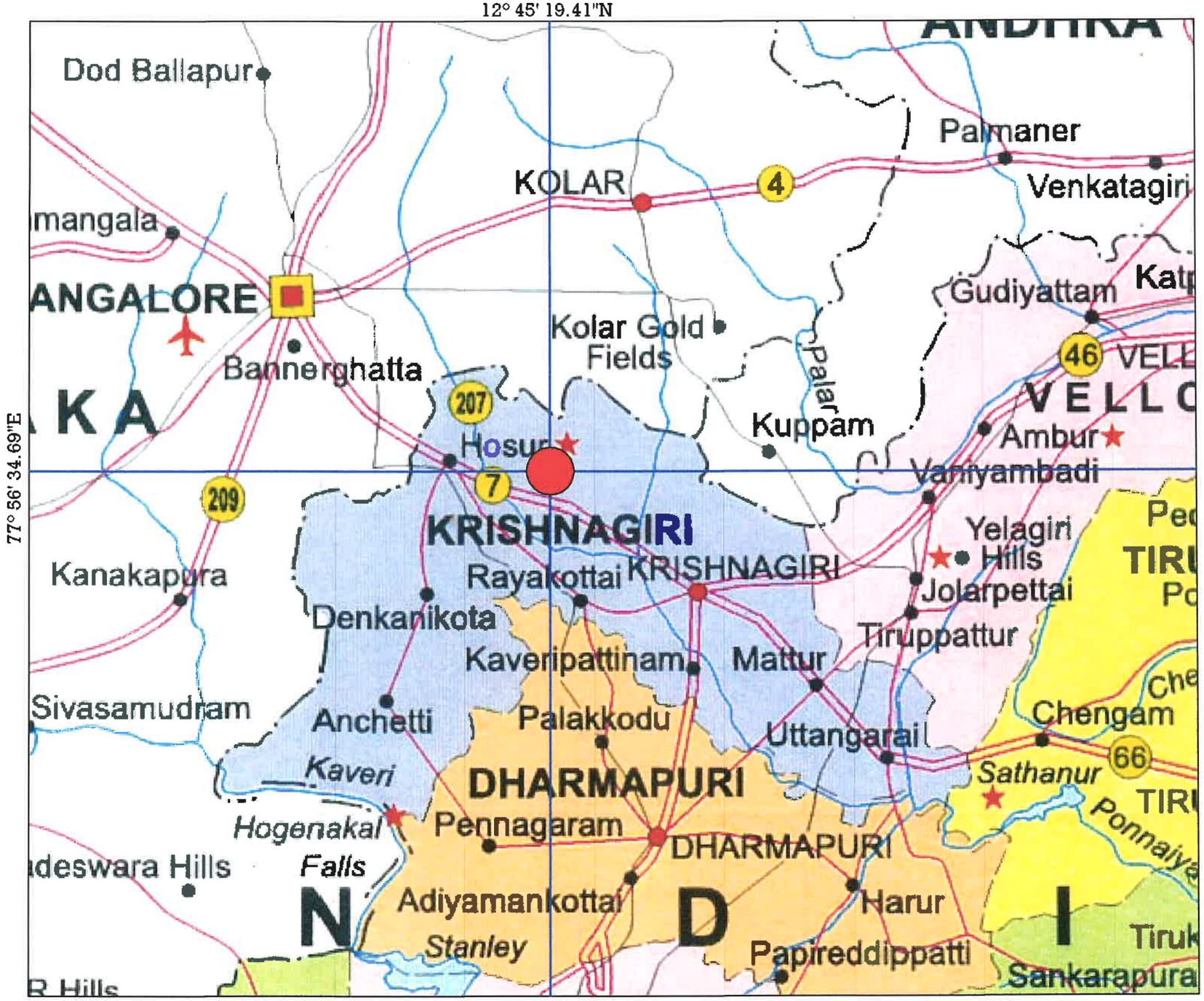
क्षेत्रीय खान नियंत्रक / Regional Controller of Mines
भारतीय खान ब्यूरो / Indian Bureau of Mines

ANNEXURE-IX

PHOTO SHOWN PROPOSED APPLIED LEASE AREA VIEW-1

PHOTO SHOWN PROPOSED APPLIED LEASE AREA VIEW-2

S. MATHAN PRAKASH, M.Sc., M.Phil.,
RQP/CMM/270/2018/A



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துணை இயக்குநர் அலுவலகம்
புவியியல் மற்றும் சுரங்கத்துறை
29 JUN 2022
கிருஷ்ணகிரி

PLATE NO:I

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

QUARRY LEASE AREA :

TOPO SHEET NO. : 57-H/14,

LATITUDE :12° 45' 19.41"N to 12° 45' 14.07"N

LONGITUDE: 77° 56' 40.17"E to 77° 56' 34.69"E

LOCATION PLAN

NOT TO SCALE

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL I GR

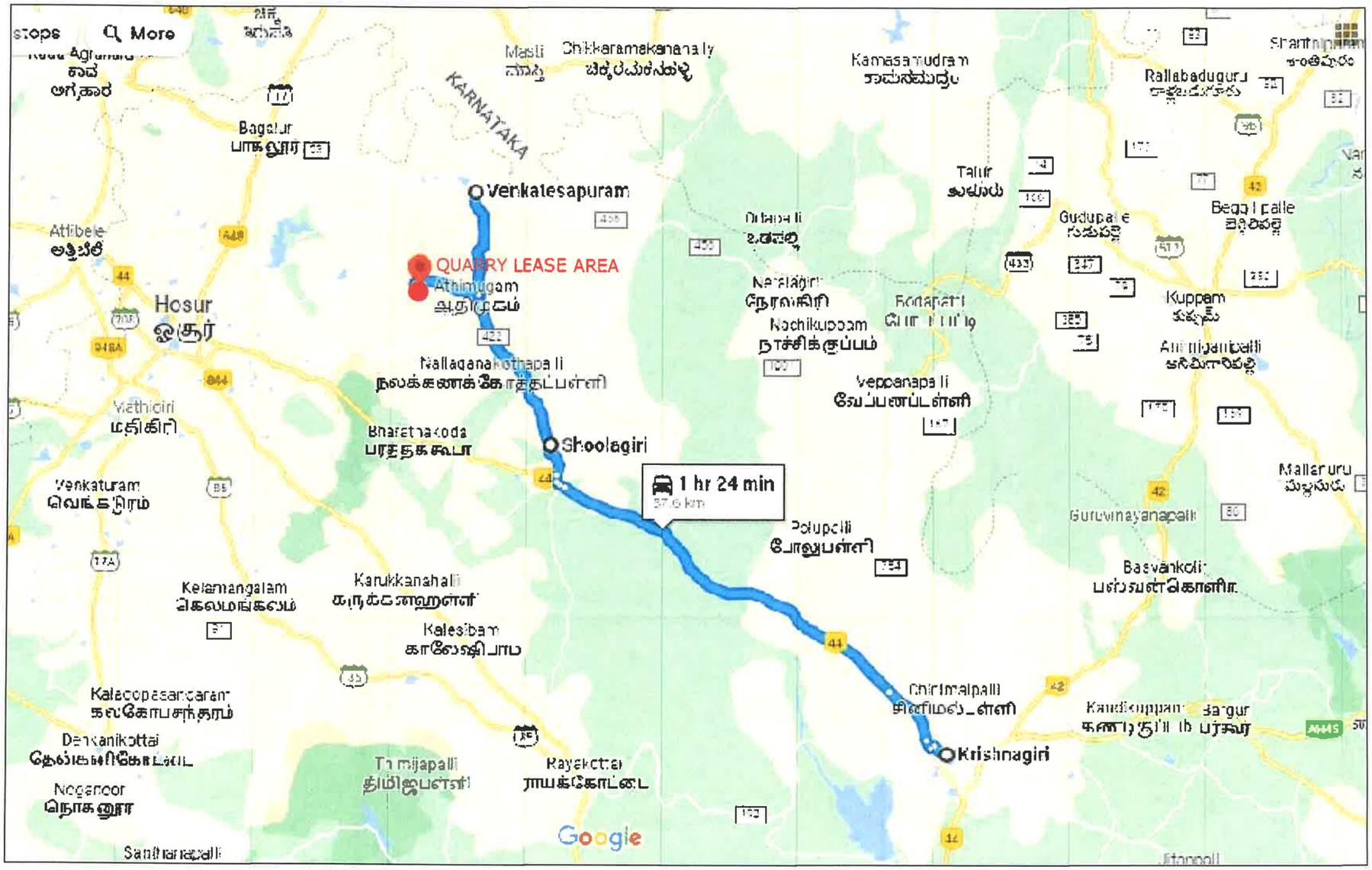


PLATE NO:IA

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

QUARRY LEASE AREA

ROAD

ROUTE MAP

NOT TO SCALE

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL1 QR

12° 45' 19.41"N

12° 45' 14.07"N

N

PLATE NO:IB

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.NO.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

QUARRY LEASE AREA :

5KM RADIUS

TOPO SHEET NO. : 57-H/14,

LATITUDE :12° 45' 19.41"N to 12° 45' 14.07"N

LONGITUDE: 77° 56' 40.17"E to 77° 56' 34.69"E

TOPO SHEET MAP OF
THE LEASE AREA

SCALE-1:50,000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL1 GR

12° 45' 19.85"N
77° 56' 37.03"E

12° 45' 19.41"N
77° 56' 40.17"E

12° 45' 14.07"N
77° 56' 34.69"E

12° 45' 14.04"N
77° 56' 36.68"E

N

PLATE NO:IC

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

QUARRY LEASE BOUNDARY

500M RADIUS

300M RADIUS

SATELLITE IMAGE
(500m RADIUS)

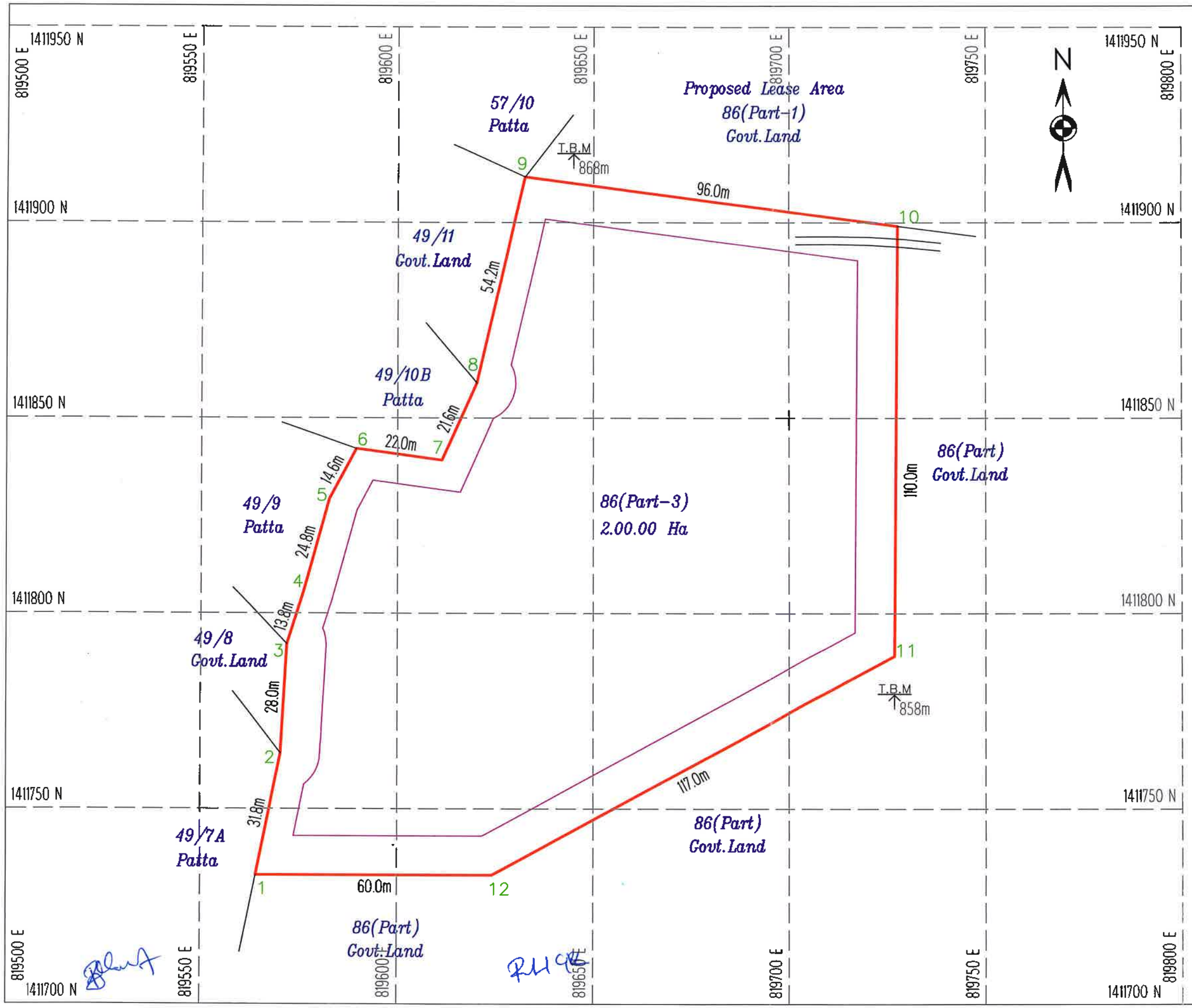
SCALE 1:5000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL1 GR



BOUNDARY CO-ORDINATES		
LABEL	LATITUDE	LONGITUDE
1	12° 45' 14.1938" N	77° 56' 34.6927" E
2	12° 45' 15.2005" N	77° 56' 34.9149" E
3	12° 45' 16.1127" N	77° 56' 34.9784" E
4	12° 45' 16.5393" N	77° 56' 35.1201" E
5	12° 45' 17.3140" N	77° 56' 35.3479" E
6	12° 45' 17.7308" N	77° 56' 35.5794" E
7	12° 45' 17.6274" N	77° 56' 36.3004" E
8	12° 45' 18.2665" N	77° 56' 36.5970" E
9	12° 45' 19.9777" N	77° 56' 37.0259" E
10	12° 45' 19.5338" N	77° 56' 40.1734" E
11	12° 45' 15.9580" N	77° 56' 40.1026" E
12	12° 45' 14.1717" N	77° 56' 36.6800" E

PLATE NO:II

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY:

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- APPROACH ROAD

MINE LEASE PLAN

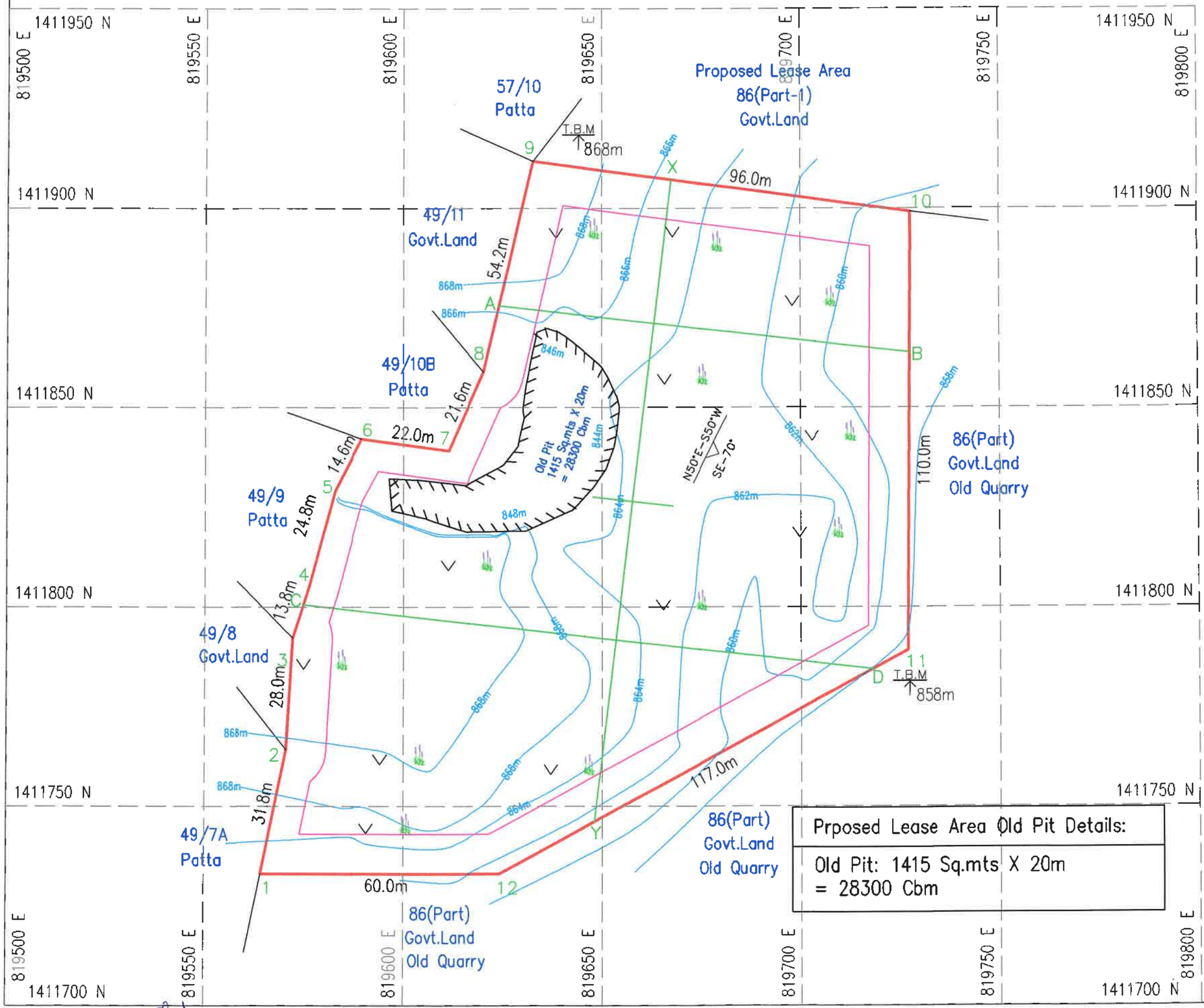
SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

29 JUN 2022



Prposed Lease Area Old Pit Details:

Old Pit: 1415 Sq.mts X 20m
= 28300 Cbm

PLATE NO:III

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- OLD PIT
- CONTOUR LINE
- STRIKE & DIP
- QUARRY ROAD
- SHRUB

SURFACE AND GEOLOGICAL PLAN

SCALE 1:1000

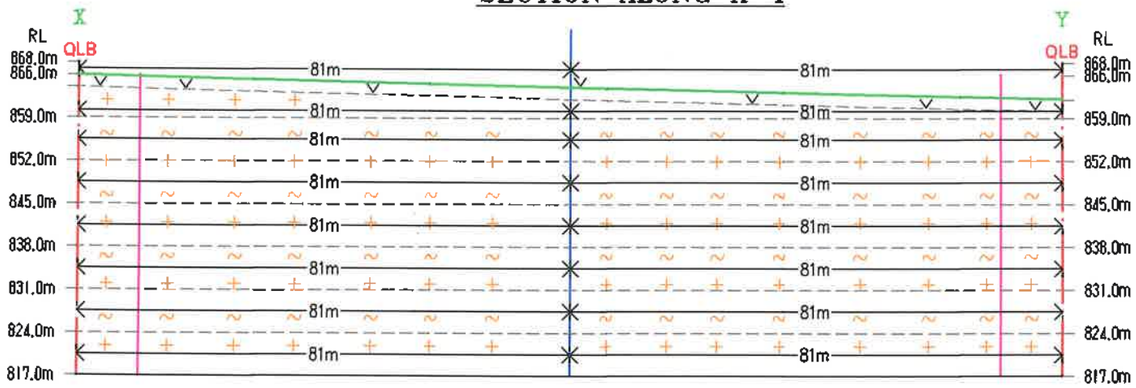
Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

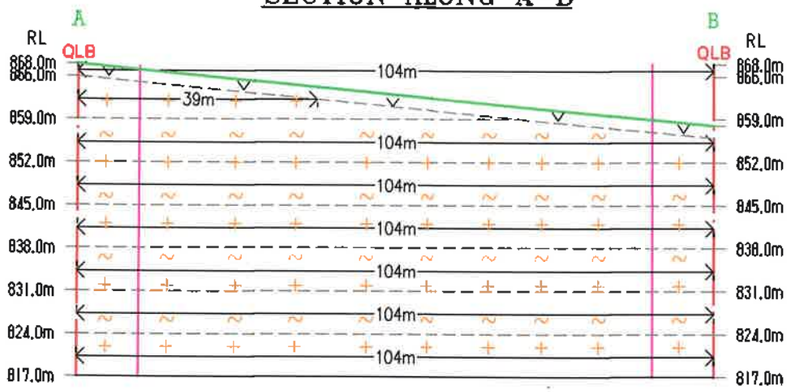
S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL1 GR

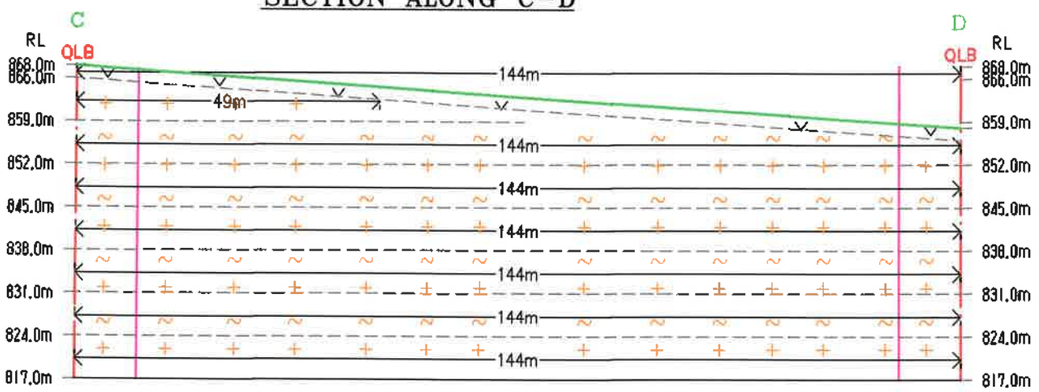
SECTION ALONG X–Y



SECTION ALONG A–B



SECTION ALONG C–D



GEOLOGICAL RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Recoverable Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	81	104	2			16848
	II	81	39	7	22113	22113	
	III	81	104	7	58968	58968	
	IV	81	104	7	58968	58968	
	V	81	104	7	58968	58968	
	VI	81	104	7	58968	58968	
	VII	81	104	7	58968	58968	
	VIII	81	104	7	58968	58968	
Total=					375921	375921	16848
XY-AB	I	81	144	2			23328
	II	81	49	7	27783	27783	
	III	81	144	7	81648	81648	
	IV	81	144	7	81648	81648	
	V	81	144	7	81648	81648	
	VI	81	144	7	81648	81648	
	VII	81	144	7	81648	81648	
	VIII	81	144	7	81648	81648	
Total=					517671	517671	23328
GRAND Total=					893592	893592	40176

Surface Ground Level Above Height - 10m
Surface Ground Level Below Depth - 41m

PLATE NO:III-A

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL (GRAVEL)
- ROUGH STONE
- OLD PIT

GEOLOGICAL SECTIONS

SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

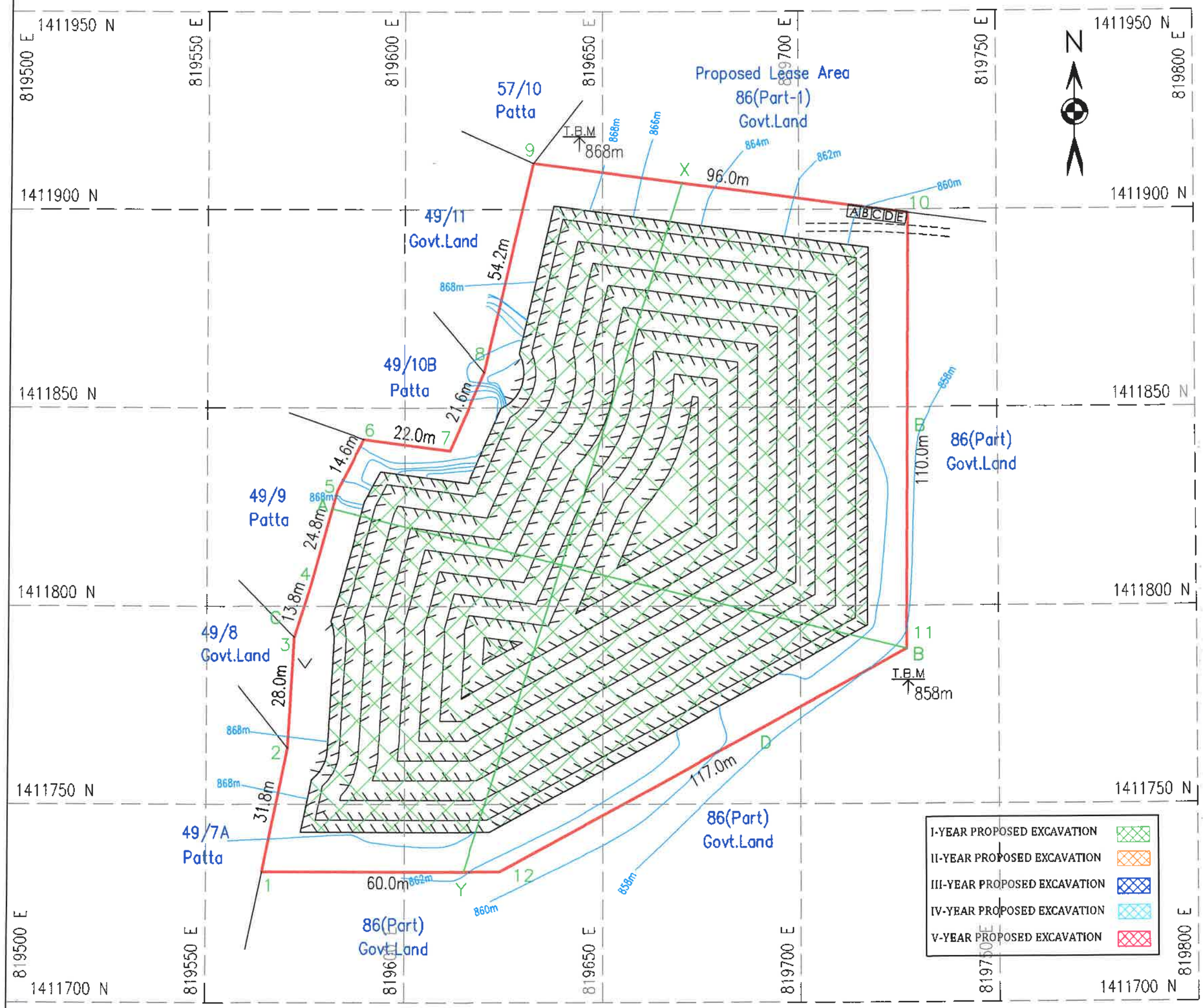


PLATE NO:IV

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- CONTOUR LINE
- QUARRY ROAD

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

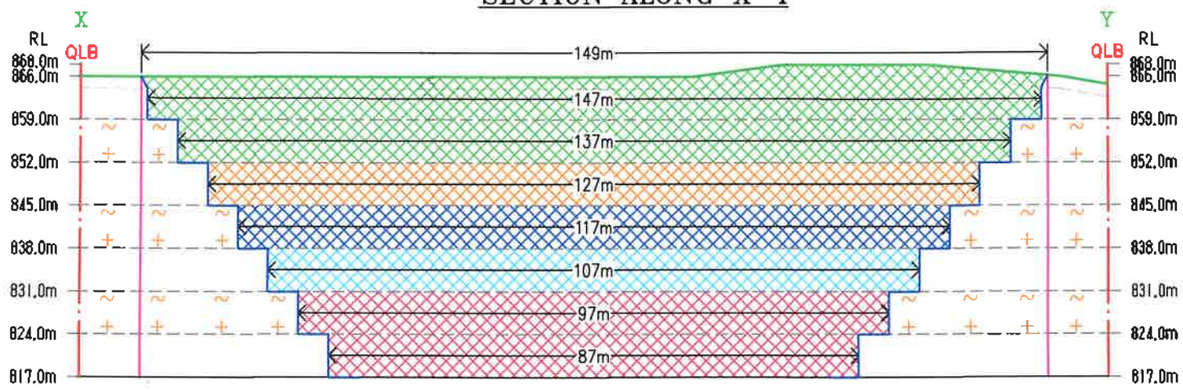
SCALE 1:1000

Prepared By:

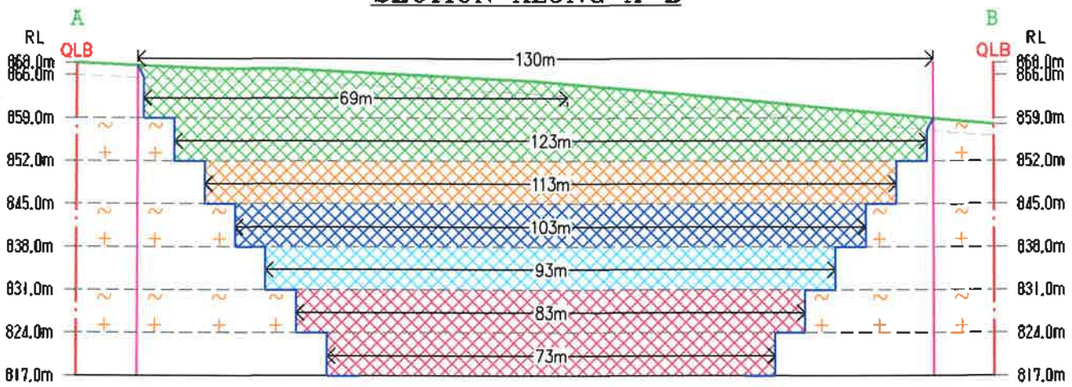
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

SECTION ALONG X–Y



SECTION ALONG A–B



I-YEAR PROPOSED EXCAVATION
II-YEAR PROPOSED EXCAVATION
III-YEAR PROPOSED EXCAVATION
IV-YEAR PROPOSED EXCAVATION
V-YEAR PROPOSED EXCAVATION

Surface Ground Level Above Height - 10m
Surface Ground Level Below Depth - 41m

YEARWISE DEVELOPMENT AND PRODUCTION

YEAR	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (m3)	Recoverable Reserves in m3 (100%)	Top Soil (Gravel) in m3
I-YEAR	XY-AB	I	149	130	2			38740
		II	147	69	7	71001	71001	
		III	137	123	7	117957	117957	
II-YEAR		IV	127	113	7	100457	100457	
III-YEAR		V	117	103	7	84357	84357	
IV-YEAR		VI	107	93	7	69657	69657	
V-YEAR		VII	97	83	7	56357	56357	
		VIII	87	73	7	44457	44457	
Total=						**544243**	**544243**	**38740**

PLATE NO:IV-A

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

QUARRY LEASE BOUNDARY
7.5m & 10.0m SAFETY DISTANCE
TOP SOIL (GRAVEL)
ROUGH STONE
QUARRY PIT

YEARWISE DEVELOPMENT AND PRODUCTION SECTIONS

SCALE 1:1000

Prepared By:

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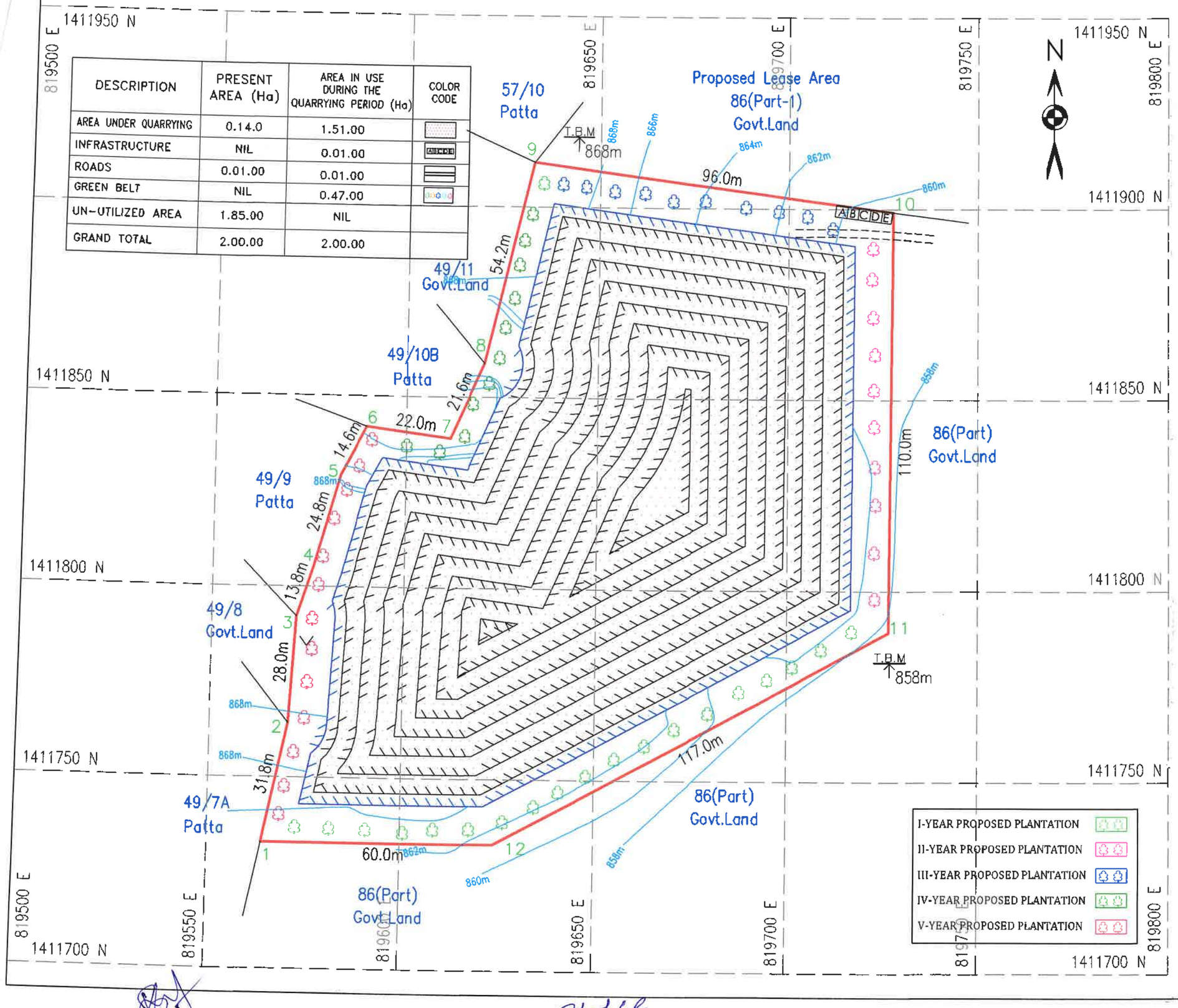
S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL-1 GR

DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	0.14.0	1.51.00	
INFRASTRUCTURE	NIL	0.01.00	ABCDE
ROADS	0.01.00	0.01.00	
GREEN BELT	NIL	0.47.00	
UN-UTILIZED AREA	1.85.00	NIL	
GRAND TOTAL	2.00.00	2.00.00	



I-YEAR PROPOSED PLANTATION	
II-YEAR PROPOSED PLANTATION	
III-YEAR PROPOSED PLANTATION	
IV-YEAR PROPOSED PLANTATION	
V-YEAR PROPOSED PLANTATION	

துணை இயக்குநர் அலுவலகம்
29 JUN 2022
கிருஷ்ணகிரி
புவியியல் மற்றும் சுரங்கத்துறை

PLATE NO:V

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- CONTOUR LINE
- QUARRY ROAD
- MINE LAYOUT

MINE LAYOUT,LAND USE PATTERN & AFFORESTATION PLAN

SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

12° 45' 19.85"N
77° 56' 37.03"E

OCTOBER TO DECEMBER

N

12° 45' 19.41"N
77° 56' 40.17"E

CRUSHER UNIT

CRUSHER UNIT

CRUSHER UNIT

CRUSHER UNIT

12° 45' 14.07"N
77° 56' 34.69"E

JULY TO SEPTEMBER

12° 45' 14.04"N
77° 56' 36.68"E

PLAN

PLATE NO:VI

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT.

LOCATION OF QUARRY:

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 500M RADIUS
- 300M RADIUS
- 60M RADIUS
- APPROACH ROAD
- QUARRY ROAD
- TREES
- SHRUB
- WIND DIRECTION
- ADJACENT QUARRY
- CRUSHER UNIT
- INFRASTRUCTURES
- DRY AGRICUTURAL LAND

ENVIRONMENT PLAN

SCALE 1:5000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

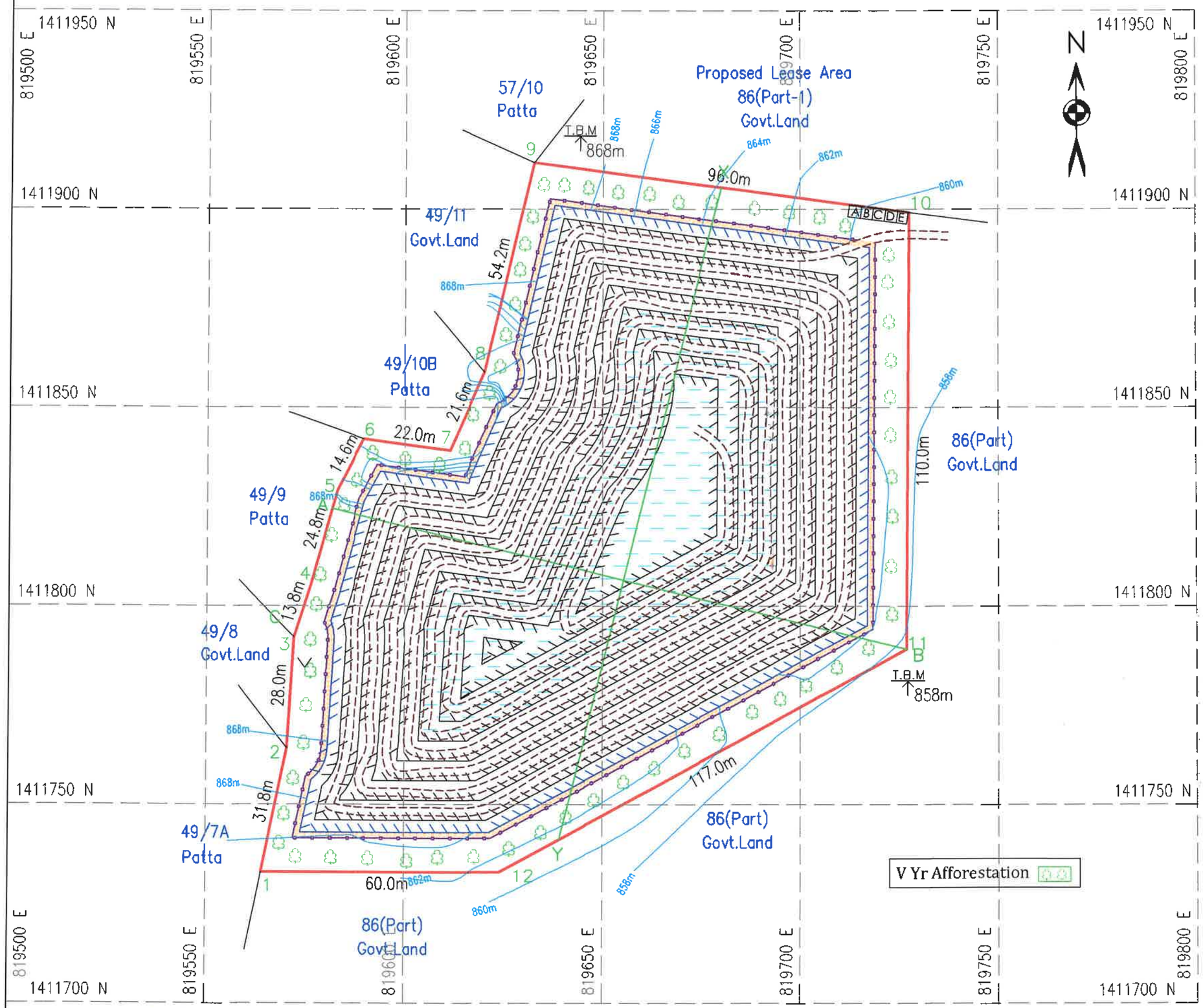


PLATE NO:VII

DATE OF SURVEY: 06.05.2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- CONTOUR LINE
- TRUCK ROAD (QUARRY ROAD)
- FENCING
- PARAPET WALL
- ULTIMATE PIT LIMIT
- PROPOSED WATER STORAGE

CONCEPTUAL & FINAL MINE CLOSURE PLAN

SCALE 1:1000

Prepared By:

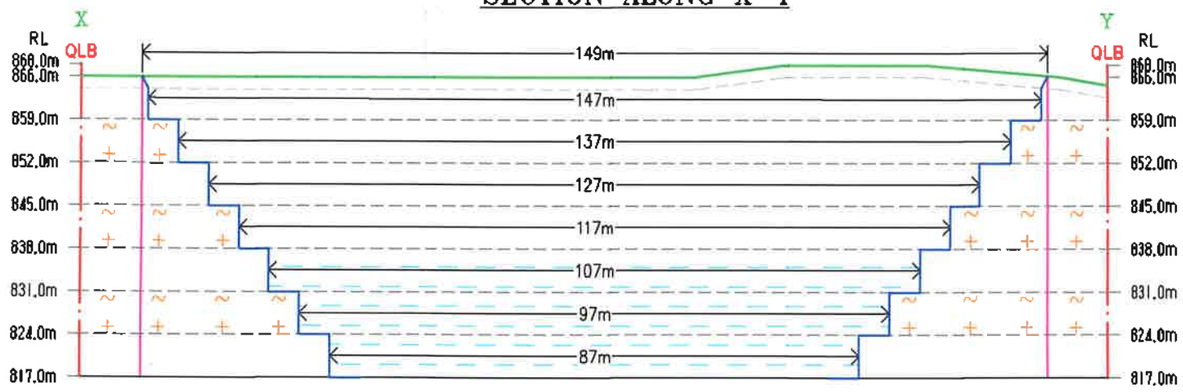
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

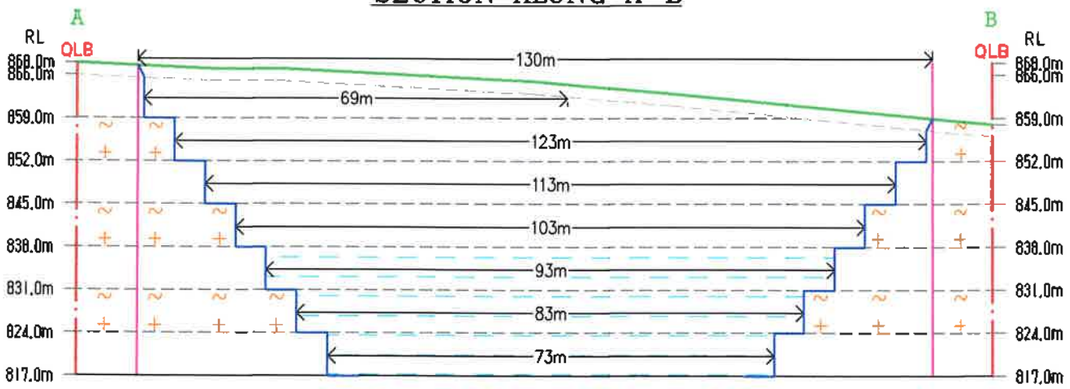
துணை இயக்குநர் அலுவலகம்
29 JUN 2022
கிருஷ்ணகிரி
புவியியல் மற்றும் சுரங்கத்துறை

PL1 GR

SECTION ALONG X-Y



SECTION ALONG A-B



ULTIMATE PIT DIMENSION
= 149.0m(L) X 130.0m(W) X 41.0m(D)

MINABLE RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Recoverable Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	149	130	2			38740
	II	147	69	7	71001	71001	
	III	137	123	7	117957	117957	
	IV	127	113	7	100457	100457	
	V	117	103	7	84357	84357	
	VI	107	93	7	69657	69657	
	VII	97	83	7	56357	56357	
	VIII	87	73	7	44457	44457	
Total=					544243	544243	38740

PL1 GR

Surface Ground Level Above Height - 10m
Surface Ground Level Below Depth - 41m

PLATE NO:VII-A

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- ULTIMATE PIT SLOPE
- PROPOSED WATER STORAGE

CONCEPTUAL & FINAL MINE CLOSURE SECTIONS

SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

Conceptual Plan and Sections Showing Regulation to Quarry Common Boundary as Stipulated in Rule (III)3 of Metalliferous Mines Regulations 1961, after getting Permission from DGMS, if needed.

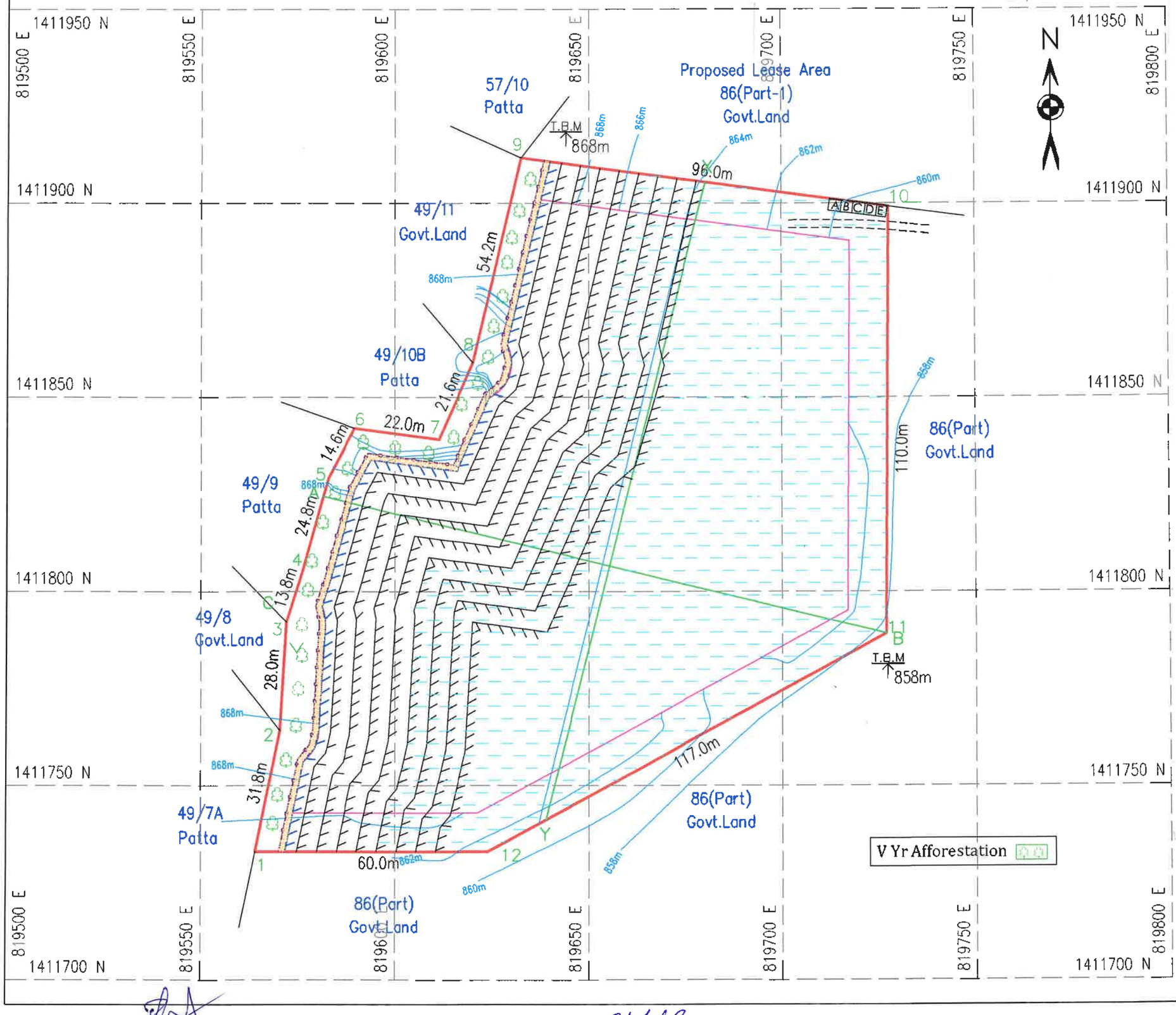


PLATE NO: VII

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT	:	2.00.00 Ha,
S.F.NO	:	86 (Part-3)
VILLAGE	:	VENKATESAPURAM,
TALUK	:	SHOOLAGIRI,
DISTRICT	:	KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- CONTOUR LINE
- QUARRY ROAD
- FENCING
- PARAPET WALL
- ULTIMATE PIT LIMIT
- PROPOSED WATER STORAGE

CONCEPTUAL PLAN
COMMON BOUNDARY

SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

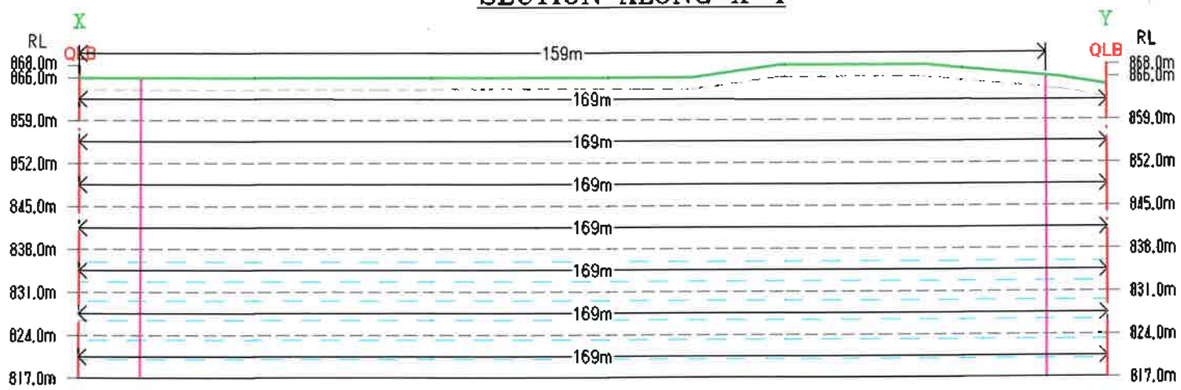
PL1 GR

Conceptual Plan and Sections Showing Regulation to Quarry Common Boundary as Stipulated in Rule (III)3 of Metalliferous Mines Regulations 1961, after getting Permission from DGMS, if needed.

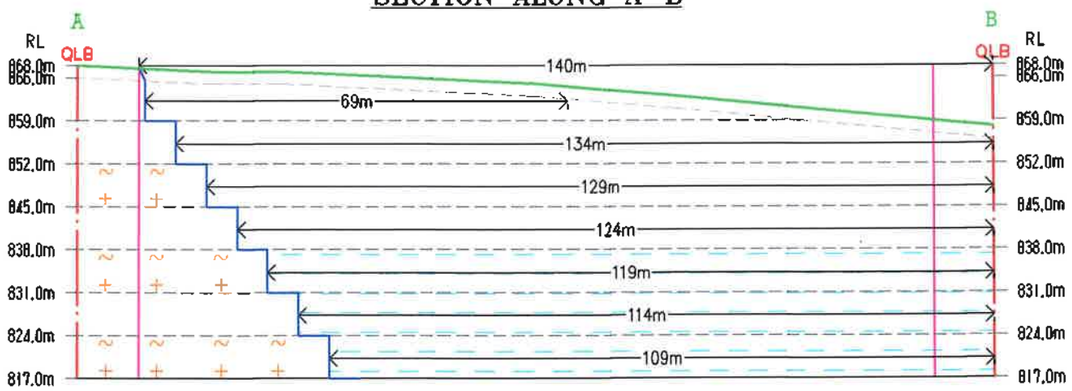
29 JUN 2022

Surface Ground Level Above Height - 10m
Surface Ground Level Below Depth - 41m

SECTION ALONG X-Y



SECTION ALONG A-B



ULTIMATE PIT DIMENSION
= 169.0m(L) X 140.0m(W) X 41.0m(D)

MINABLE RESERVES - COMMON BOUNDARY

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Recoverable Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	149	140	2			41720
	II	147	69	7	71001	71001	
	III	137	134	7	128506	128506	
	IV	127	129	7	114681	114681	
	V	117	124	7	101556	101556	
	VI	107	119	7	89131	89131	
	VII	97	114	7	77406	77406	
	VIII	87	109	7	66381	66381	
Total=					648662	648662	41720

PLATE NO:VIII-A

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- ULTIMATE PIT SLOPE
- PROPOSED WATER STORAGE

CONCEPTUAL SECTIONS
COMMON BOUNDARY

SCALE 1:1000

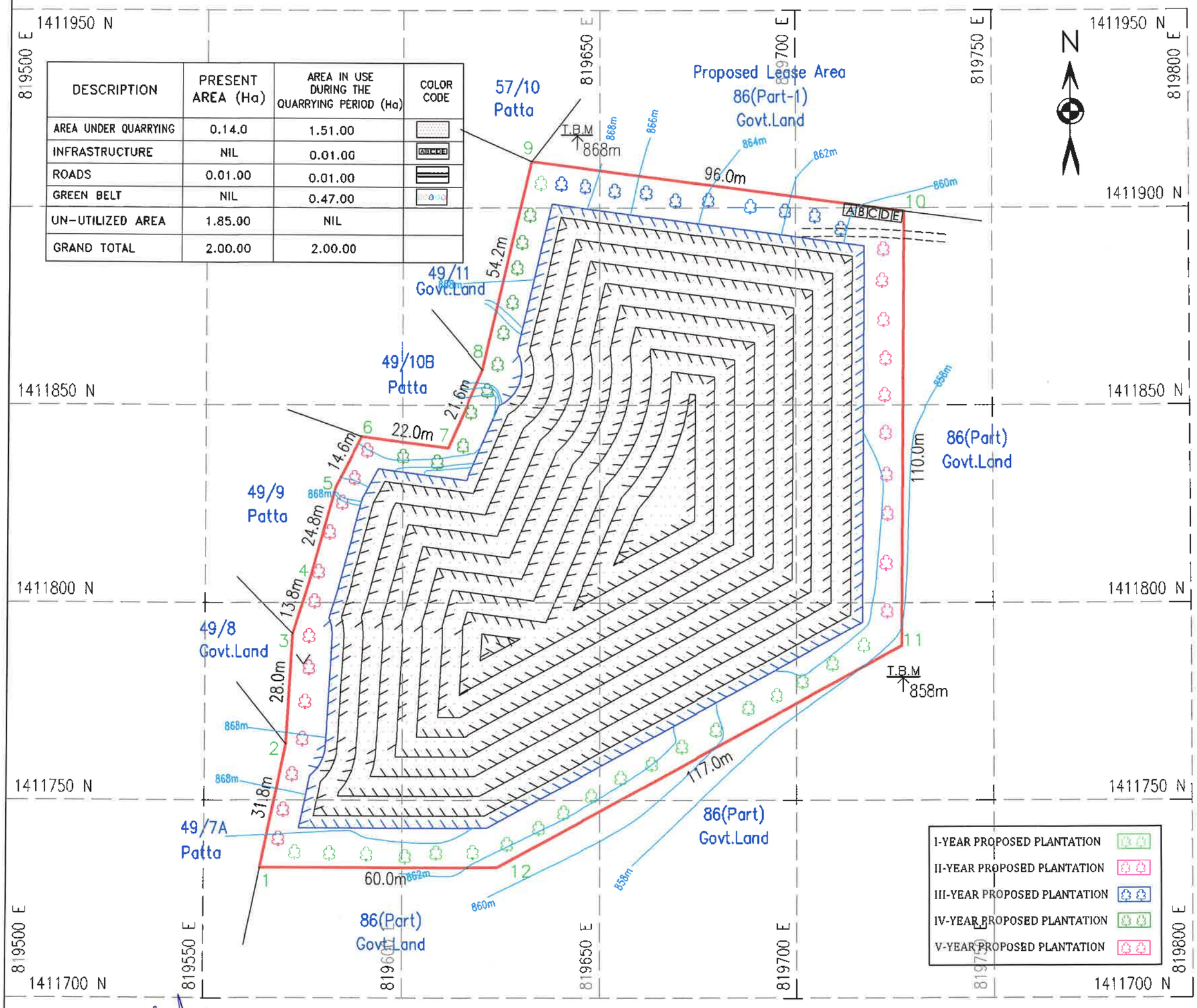
Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL1 GR

DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	0.14.0	1.51.00	
INFRASTRUCTURE	NIL	0.01.00	ABCDE
ROADS	0.01.00	0.01.00	
GREEN BELT	NIL	0.47.00	
UN-UTILIZED AREA	1.85.00	NIL	
GRAND TOTAL	2.00.00	2.00.00	



I-YEAR PROPOSED PLANTATION
II-YEAR PROPOSED PLANTATION
III-YEAR PROPOSED PLANTATION
IV-YEAR PROPOSED PLANTATION
V-YEAR PROPOSED PLANTATION

துணை இயக்குநர் அலுவலகம்
29 JUN 2022
கிருஷ்ணகிரி
புவியியல் மற்றும் சுரங்கத்துறை

PLATE NO:IX

DATE OF SURVEY: 06-05-2022

APPLICANT ADDRESS:

M/s. S.R.ENTERPRISES,
D.No.25, SHANTHI NAGAR,
WEST, 2nd CROSS,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 109.

LOCATION OF QUARRY :

EXTENT : 2.00.00 Ha,
S.F.NO : 86 (Part-3)
VILLAGE : VENKATESAPURAM,
TALUK : SHOOLAGIRI,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM 868.0M)
- TOP SOIL (GRAVEL)
- ROUGH STONE
- QUARRY PIT
- CONTOUR LINE
- QUARRY ROAD
- MINE LAYOUT

PROGRESSIVE MINE CLOSURE PLAN

SCALE 1:1000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

PL1 GR

ANNEXURE-VII

VAO CERTIFICATE

M/s. S.R.Enterprises, Rough stone quarry in the S.F.No.86(Part-3) over an extent of 2.00.00ha. in Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District.

GENERAL VIEW OF THE APPLIED LEASE AREA

For S.R.Enterprises,

PLIGR

(Deponent)

02/09/22.

(PAO)

Village Administrative Officer
3, VENKATESAPURAM
Shoolagiri Tk, Krishnagiri Dt

சான்று

கிருஷ்ணகிரி மாவட்டம், சூளகிரி வட்டம், பேரிகை உள்வட்டம், வெங்கடேசபுரம் கிராம புல எண்.86 விஸ். 60.80.00 ஹெக்டேர் கரடு புறம்போக்கு நிலமாகும். இதில் புல எண்.86/பகுதி-3 ஆக உள்ள பரப்பு 2.00.00 ஹெக்டேரில் குவாரி அமைய உள்ள **M/s. S.R.ENTERPRISES** என்ற நிறுவனத்திலிருந்து 500 மீட்டர் சுற்றளவில் கிராம நத்தமோ, குடியிருப்புகளோ, ஏரியோ, தேவாலயமோ, வழிப்பாட்டுத்தளங்களோ, மசூதியோ, புராதன சின்னங்களோ, புதை குழிகளோ, கல்விக் கூடங்களோ, ஆறுகள், அரசு கட்டிடங்களோ இல்லை என்பதை புலத்தணிக்கைமின் மூலம் அறிந்து சான்றளிக்கப்படுகிறது.

02/09/22

கிராம நிர்வாக அலுவலர்
வெங்கடேசபுரம்

Village Administrative Officer
, 3, VENKATESAPURAM
Shoolagiri Tk, Krishnagiri Dt.

ANNEXURE-VIII

BLASTING CERTIFICATE

Cell : 98427 44073, 94437 44073

VISHNU EXPLOSIVES

No.235/9, R.G. Nagar Engineer's Colony Extension, Jagir Reddipatty, Salem - 636 302.

Ref :

Date :

To

M/S. S.R. Enterprises,
D.No.25, Shanthi Nagar,
West, 2nd Cross,
Hosur Taluk,
Krishnagiri District-635 109.

Sub: Willingness to do Explosives Blasting Works – Reg.

With respect to the above subject, we would like to introduce myself as the Explosives Blasting Contractors, for which our LICENCE NO: E/HQ/TN/22/335(E64278) & E/SC/TN/22/463(E37227) S.F.No.344/3B, Paiyur Village, Krishnagiri Taluk magazine is situated in No.273-A, Keel Paiyur Village, Kaveripattinam, Krishnagiri, Tamilnadu-635 112.

We were engaged in professional blasting contract works with all facilities and License holders to carry out blasting works in specified time and period covered under Explosives Rules, 2008.

We kindly request yourself to engage us to do Explosives Blasting Works in your proposed Rough stone Quarry situated at S.F.No: 86 (Part-3) in Venkatesapuram Village, Shoolagiri Taluk, Krishnagiri District over an extent of 2.00.00 hectares.

SERVING BEST AT ALL TIMES

Thanking you.

For VISHNU EXPLOSIVES,

VISHNU EXPLOSIVES VE

Enclosure: Magazine License Copy.

अनुज्ञप्ति प्ररूप एल. ई.-3 | LICENCE FORM LE-3

(विस्फोटक नियम, 2008 की अनुसूची 5 के भाग I के अनुक्रम संख्यांक (ii) देखिए)
(See rule 30(1)(ii) in Part I of Schedule V of Explosives Rules, 2008)

वर्ग 1, 2, 3, 4, 5 या वर्ग 7 के विस्फोटक या किसी मैगजीन में वर्ग 6 के विस्फोटक रखने के लिए अनुज्ञप्ति
Licence to possess for use explosives of class 1, 2, 3, 4, 5 or 7 in a magazine

अनुज्ञप्ति सं. (Licence No.) : EJHQ/TN/22/335(E64278)
वार्षिक फीस रुपए (Annual Fee Rs). 14000/-

1 Licence is hereby granted to

M/s Vishnu Explosives (अधिभोगी / Occupier : Shri G.V.Sai Supramanian), S/o V.G. Visheswarath,in,Plot No. 275-A Keel Paiyur, Paiyur Village, Kaveripatnam PO., Town Village - Kaveripatnam, Districk-KRISHNAGIRI, State-Tamil Nadu, Pincode - 635112

को अनुज्ञप्ति अनुदत्त की जाती है।

2 अनुज्ञप्तिधारी की प्रास्थिति Status of licencee - Proprietorship Firm

3 अनुज्ञप्ति निम्नलिखित प्रयोजनों के लिए विधिमान्य है। : possess for use of Safety Fuse, Detonating Fuse, Nitrate mixture - Slurry and Emulsion Explosives, Detonators, - के उपयोग के लिए
Licence is valid only for the following purpose

4 अनुज्ञप्ति विस्फोटकों के निम्नलिखित किस्मों, प्रकार और मात्रा के लिए विधिमान्य है।
Licence is valid for the following kinds and quantity of explosives - (वर्ग/class)

क्र. सं. Sl. No	नाम और विवरण Name and Description	वर्ग और प्रभाग Class & Division	उप-प्रभाग Sub-division	मात्रा किसी एक समय में Quantity at any one time
1	Nitrate mixture - Slurry and Emulsion Explosives	5.1	0	7000 kg
2	Detonators	6.3	0	50000 Nos
3	Safety Fuse	6.1	0	5 000 Mtrs
4	Detonating Fuse	6.2	0	10000 Mtrs

(क) किसी एक कलेंडर माह में खरीदे जाने वाले विस्फोटक की मात्रा (अनुबंध (क) और (ख) के अधीन अनुज्ञप्ति के लिए)
(a) Quantity of explosives to be purchased in a calendar month (applicable for licence under Article 3(a) and (b)) 20 tonnes

5 निम्नलिखित रेखाचित्र (रेखाचित्रों) से अनुज्ञप्त परिसर की पुष्टि होती है। रेखांक सं. (Drawing No.) EJHQ/TN/22/335(E64278)
The licensed premises shall conform to the following drawing(s). दिनांक (Dated) 11/10/2021

6 अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address
Survey No. 344/3B ग्राम (Town/Village) Paiyur Village, Kaveripattinam

जिला (District)	KRISHNAGIRI	राज्य (State)	Tamil Nadu	पुलिस थाना (Police Station) : Kaveripattinam	
दूरभाष (Phone)	9842744073	ई मेल (E-Mail)		फैक्स (Fax)	6357

7 अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्विष्ट हैं। a main magazine room, a lobby and a detonator storage room
The licensed premises consist of following facilities

8 अनुज्ञप्ति समय समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उसके अधीन विरचित विस्फोटक नियम, 2008 के उपबंधों, शर्तों और अतिरिक्त शर्तों और [illegible] विनियमों के अधीन रहते हुए अनुदत्त की जाती है।
The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Explosives Rules, 2008 framed there under conditions, additional conditions and the following Annexure

I उपर्युक्त क्रम में 6 में यथा वर्णित रेखांकन (स्थान, संनिर्माण संबंधी और अन्य विवरण दर्शित करते हुए
Drawings (showing site, constructional and other details) as stated in serial No. 6 above

II अनुज्ञप्ति प्राधिकारी द्वारा हस्ता क्षरित इस अनुज्ञप्ति की शर्तें और अतिरिक्त शर्तें।
Conditions and Additional Conditions of this licence signed by the licensing authority

III [illegible] Distance Form DE-2

9 यह अनुज्ञप्ति तारीख 31 मार्च 2015 तक विधिमान्य रहेगी। This licence shall remain valid till 31st day of March 2015.

यह अनुज्ञप्ति, अधिनियम या उसके अधीन विरचित नियमों या अनुसूची V के भाग I के प्रति निर्देश करने पर के अधीन लगे उपवर्णित इस अनुज्ञप्ति की शर्तों का अतिक्रमण करने पर यदि अनुज्ञप्त परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिसंहृत की जा सकती है, जहां तक लागू हो।
This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under [illegible] wherever applicable referred to in Part I of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto

दिनांक The Date : 08.2012

मुख्य विस्फोटक नियंत्रक | Chief Controller of Explosives

Amendments :
- Change in Postal Address dated : 26.04.2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 02.04.2018
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 24.04.2019
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 11.10.2021
- Amendment in Drawings,Facilities/Premises dated : 11.10.2021

Transfers :
- Change in Licensee Name, Address Status dated : 08/10/2021

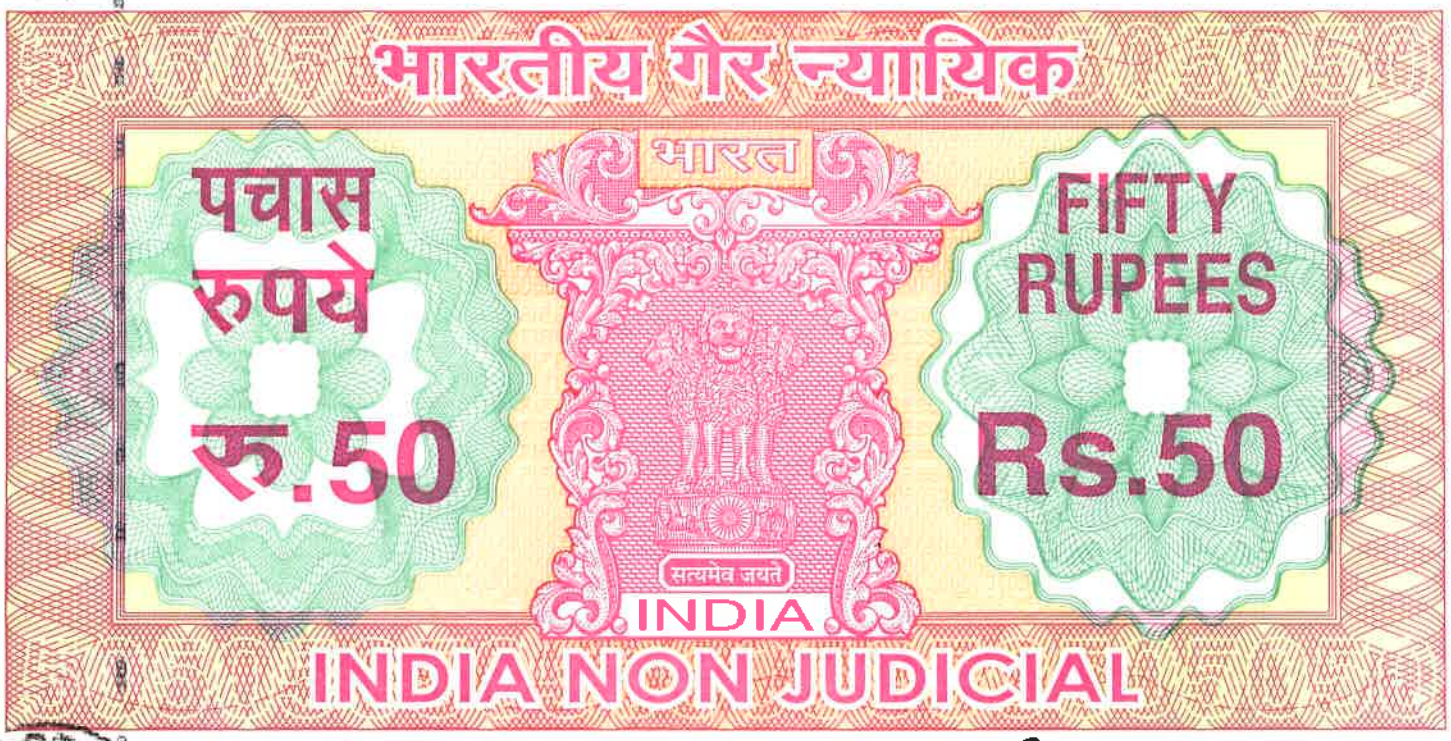
नवीनीकरण के पृष्ठांकन के लिए स्थान
Space for Endorsement of Renewal

नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुज्ञप्ति प्राधिकारी के हस्ताक्षर और पदनाम Signature of licensing authority and [illegible]
28/02/2020	31/03/2025	Sd/- Controller of Explosives, Madurai

कानूनी चेतावनी : विस्फोटकों का गलत ढंग से चलान या उनका दुरूपयोग विधि के अधीन संगीन दांडिक अपराध होगा।
Statutory Warning : Mishandling and misuse of explosives shall constitute serious criminal offence under the law

Note :- This is system generated document does not require physical signature. Applicant may take printout for their records.

ANNEXURE-IX AFFIDAVIT AND CER DETAILS



தமிழ்நாடு तमिलनाडु TAMILNADU 17.8.2022/₹-50 - BE 946642

m/s. S.R. Enterprises.
Krishnagiri

M. கண்ணன்
முத்திரைத்தாள் விற்பனையாளர்
உரிமம் எண். 1/2003
சுப்ரமணிய நகர் விரிவாக்கம்,
ஆரமங்கலம், சேலம்-5, தமிழ்நாடு

AFFIDAVIT TO SEIAA, TAMIL NADU

We, **M/S. S.R. Enterprises** office at D.No.25, Shanthi Nagar, West, 2nd Cross, Hosur Taluk, Krishnagiri District-635 109, do hereby solemnly declare and sincerely affirm that, We have applied for getting environment clearance to SEIAA, Tamil Nadu for quarry lease for Rough Stone quarry over an extent of 2.00.00 Ha with Survey No. 86 (Part-3), in Venkatesapuram village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu.

1. We swear to state and confirm that none of the following is situated within 10km radius of the quarry site for which, We have applied for environmental clearance,
   a. Notified Protected areas under the wild life (Protection) Act, 1972 (NBWL).
   b. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and control of Pollution) Act 1974.
   c. Eco sensitive area as notified.
   d. Interstate boundaries and international boundaries within 10km radius from the boundary of the proposed quarry site.

NOTARY GOVT OF INDIA SALEM (DT) REG NO: 5711

2. The following Corporate Environment Responsibility (CER) activities will be completed before commencement of the quarrying activities.

CER Activity	Project cost (Rs)	CER cost (Rs)
Carrying out various developmental works in the nearby region based on the need of the locals.	Rs.3,59,35,000/-	Rs.8,00,000/-
Total cost Allocation	**Rs.3,59,39,000/-**	**Rs.8,00,000/-**

3. **Details of quarry within 500m radius from the applied area:**

a. Existing Quarries

S.No	Name and address of the lessee	Village & Taluk	SF.No.	Extent in Hectare	G.O. No. & date	Lease Period
-Nil-						

b. Details of Abandoned / Old Quarries

S.No	Name and address of the lessee	Village & Taluk	SF.No.	Extent in Hectare	G.O. No. & date	Lease Period
1	M/s. R.A. Blue Metals, No. 50, Radhalakshmi, Nilaya, Devasandra Main Road, Bangalore - 560036	Venkatesapuram Village Shoolagiri Taluk	86 (Part-4)	4.00.0 Ha	Roc.No.68/2016/ Mines dt:10.08.2016	22.08.2016 To 21.08.2021
2	Thiru. P, Selvaraju, S/o. Periyasamy, No.57-B-1, Kalliyannan Nagar, Kumarapalayam, Thiruchengodu, Namakkal District.	Venkatesapuram Village Shoolagiri Taluk	86 (Part-6)	2.50.0 Ha	Roc.No.69/2016/ Mines dt:13.10.2016	17.10.2016 To 16.10.2021

NOTARY GOVT OF INDIA M.SARAVANAN B.Sc., B.L., SALEM (DL) REG No: 5711

3	Thiru.J.Shanmugam, S/o. Jaganathan, M/S. S.S.Blue metals, No.4, Pillaiyar Koil Street, Marandahalli Post, Palacode Taluk, Dharmapuri District.	Venkatesapuram Village Shoolagiri Taluk	86 (Part-7)	2.50.0 Ha	Roc.No.70/2016/ Mines dt:28.09.2016	03.10.2016 To 02.10.2021

Details of Proposed Quarries

S.No	Name and address of the lessee	Village & Taluk	SF.No.	Extent in Hectare	G.O. No. & date	Lease Period
1	M/s. S.R. Enterprises, D.No.25, Shanthi Nagar, West 2nd Cross, Hosur Taluk, Krishnagiri District.	Venkatesapuram Village Shoolagiri Taluk	86 (Part-3)	2.00.0 Ha.	Roc.No.546/2022/ Mines dt:04.05.2022	Instant Proposal (Precise area given)
2	Thiru. B.Elavarasan, S/o. Baskaran, D.No.3/83, T.Thurinjihalli Village, Thenkaraikottai post, Pappireddipatti Taluk, Dharmapuri District.	Venkatesapuram Village Shoolagiri Taluk	86 (Part-5)	4.20.0 Ha.	Roc.No.1260/2018/ Mines dt:02.01.2018	Precise area given
3	Thiru. A .Brian Balachander, S/o. Antony Richard Bhaskar, D.No.2/29, 1st main road, Padi, Thiruvallur, Chennai-600 050.	Venkatesapuram Village Shoolagiri Taluk	86 (Part-1)	2.50.0 Ha.	Roc.No.544/2022/ Mines dt:04.05.2022	Precise area given

4. There will not be hindrance or disturbance to the people living on enrooted/ nearby our quarry site while transporting the mineral and due to quarrying activities.
5. There is no approved habitation within 300m radius from the periphery of our applied quarry.
6. We swear that afforestation will be carried out during the course of quarrying operation and maintained.
7. Insurance coverage will be arranged for the laborers working in our quarry site.
8. The existing road from the main road to quarry is in good condition and the same will be maintained and utilized for Transportation of Rough Stone.
9. We will not engage any child labor in our quarry site and we aware that engaging child labor is punishable under the law.
10. All types of safety / protective equipment will be provided and used by all the laborers working in our quarry.
11. No permanent structures, temple etc., are located within 500m radius from the periphery of our quarry.

We ensure to do the social and Environment commitment as mentioned in the Mining plan to the best of our knowledge.

For **M/s. S. R. Enterprises,**

(Deponent)

Cell:(0)9443286345
M.SARAVANAKUMAR B.A.,B.C.,B.L.
ADVOCATE & NOTARY,
(GOVT OF INDIA)
NO:11,A.V.Mansion,
1st Cross, Near Sona College,,
Junction Main Road, SALEM-636 005.

ANNEXURE-X NABET CERTIFICATE

QUALITY COUNCIL® OF INDIA
Creating an Ecosystem for Quality

National Accreditation Board for Education and Training

Certificate of Accreditation

Eco Tech Labs Pvt Ltd.,

48, 2nd Main Road, Ram Nagar South Extension, Pallikaranai, Chennai- 600100, T.N.

*The organization is accredited as **Category-A** under the QCI-NABET Scheme for Accreditation of EIA Consultant Organization, Version 3: for preparing EIA-EMP reports in the following Sectors –*

S. No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals - including Open cast only	1	1 (a) (i)	B
2	Thermal power plants	4	1(d)	A
3	Coal washeries	6	2 (a)	B
4	Metallurgical industries - Ferrous only	8	3 (a)	B
5	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	21	5 (f)	A
6	Airports	29	7 (a)	A
7	Industrial estates/ parks/ complexes/areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes	31	7 (c)	A
8	Building and construction projects	38	8 (a)	B
9	Townships and Area development projects	39	8 (b)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in SAAC minutes dated Apr. 20, 2021 and supplementary minutes dated Oct.19, 2021 posted on QCI-NABET website

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/22/2217 dated Jan. 19, 2022. The accreditation needs to be renewed before the expiry date by Eco Tech Labs Pvt. Ltd., Chennai following due process of assessment.

Sr. Director, NABET
Dated: Jan. 19, 2022

Certificate No.
NABET/EIA/2124/SA 0147

Valid up to
Sep. 15, 2023

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.