

July
2023

Application Form For Environmental Clearance (Public Hearing)

Draft Environmental Impact Assessment Report

For

Thiru C Nithin Reddy Rough Stone Quarry over a total
extent of 3.00.0 Ha

at

S.F.No.220/1 Part-2 of Gopanapalli Village, Hosur Taluk, and
Krishnagiri District

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

Category of the Project: B1

*Environmental Consultant
& Laboratory details:*
Ecotech Labs Pvt Ltd,



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

Proponent details:
Thiru. C.Nithin Reddy,
S/o. Chandra Reddy,
No. 83, Avadadenahalli
Village,
Marsur post,
Anekal Taluk,
Bangalore district - 562106

ETL/EAQM/04/July/1(a)/Thiru C Nithin Reddy

Thiru. C.Nithin Reddy,
S/o. Chandra Reddy,
No. 83, Avadadenahalli Village,
Marsur post,
Anekal Taluk,
Bangalore district - 562106

UNDERTAKING

Thiru. C.Nithin Reddy, undertaking that the Environmental Impact Assessment (EIA) Report for Rough Stone Quarry over a total extent of 3.00.0 Ha at S.F. Nos.: 220/1 Part - 2 of Gopanapalli Village, Hosur Taluk, and 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. 9570/SEAC/ToR-1348/2022 Dated: 10.02.2023

We, 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

Yours faithfully

Date:

Thiru C Nithin Reddy

PLOT No 48A, 2nd Main Road,
Ram Nagar, South Extension,
Pallikarantal, Chennai - 600 100.
GST NO. 33AADCE6103A2ZH
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CIN : U74900TN2014PTC094895

UNDERTAKING

I, Dr. A. Dhamodharan, Managing Director confirms that this EIA Report of Thiru C Nithin Reddy Rough Stone Quarry over a total extent of 3.00.0 Ha at S.F. Nos.: 220/1 Part - 2 of Gopanapalli Village, Hosur Taluk, and Krishnagiri District, Tamilnadu State 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:

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 Extension,
Pallikarantal, Chennai - 600 100.

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 Thiru C Nithin Reddy Rough Stone Quarry over a total extent of 3.00.0 Ha at S.F. Nos.: 220/1 Part - 2 of Gopanapalli Village, Hosur Taluk, and 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	Rough Stone Quarry-3.00.0 Ha
Type & Category	1 (a) Mining of Minerals
Project Proponent	Thiru C Nithin Reddy
Environment Consultant with their Accreditation Status	M/s. Eco Tech Labs Pvt. Ltd., QCI Accredited
NABET Certificate No.	NABET/ EIA/2124/ SA 0147
EIA Coordinator Name	Dr. A. Dhamodharan (Mining of Minerals)
Signature	 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. Pallikaralai, Chennai - 600 100.
Period of Involvement	January - March 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 expert/s	Involvement (Period and task)	Signature and date
1	AP	Mrs. K. Vijayalakshmi	Selection of Baseline Monitoring stations based on the wind direction, Interpretation of Baseline data by comparing it with standards prescribed by CPCB against the type of area. Identification of sources of air pollution and suggesting mitigation measures to minimize impact.	
2	WP	Dr. A. Dhamodharan	Selection of baseline Monitoring Locations for Ground water analysis and also identifying nearest surface to be studied, Preparing water balance for the project based on the anticipated occupancy load. Interpretation of baseline data collected, Identification of impacts based on the baseline.	

3	SHW	Dr. A. Dhamodharan	<p>Identification of nature of solid waste generated, 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, Suggesting suitable mitigation measures by recommending appropriate disposal method for each category of waste generated.</p>	
4	SE	Mr. S. Pandian	<p>Primary data collection through the census questionnaire, Secondary data interpretation from authenticated sources, Impact assessment & proposing suitable mitigation plan. CSR budget allocation</p>	

5	EB	Dr. A. Dhamodharan	Primary data collection through field survey and sheet observation for ecology and biodiversity, Secondary Collection through various authenticated sources, Prediction of anticipated impacts and suggesting appropriate mitigation measures.	
6	HG	Dr. T. P. Natesan	Field survey for assessing regional and local geology, aquifer distribution, water resource evaluation, change in ground water level throughout the year. Determination of groundwater use pattern, development of rainwater harvesting program, estimation of ground water direction.	
7	GEO	Dr. T. P. Natesan	Field survey for assessing regional and local geology, aquifer distribution. Determination of groundwater use pattern, development of rainwater harvesting program.	

8	SC	Dr. A. Dhamodharan	Interpretation of baseline report, Identification of possible impacts on soil, prediction of soil conservation and suggesting suitable mitigation measures.	
9	AQ	Mrs. K. Vijayalakshmi	Collection of Meteorological data for the baseline study period, Plotting wind rose diagram and thereby selecting the monitoring locations based on the wind pattern, estimation of sources of air emissions and air quality modeling is done. Interpretation of the results obtained, Identification of the impacts and suggesting suitable mitigation measures.	
10	N/V	Ms K. Vijayalakshmi	Selection of monitoring locations, Interpretation of baseline report, Prediction of impacts due to noise pollution and suggestion of appropriate mitigation measures.	
11	LU	Dr. T. P. Natesan	Preparation of land use, land cover maps for the study area using satellite imagery.	

12	RH	Ms K. Vijayalakshmi	Identification of the risk and Interpreting consequence contours. Suggesting risk mitigation measures.	7/10/22
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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 at S.F. Nos.: 220/1 Part - 2 of Gopanapalli Village, Hosur Taluk, and Krishnagiri District, Tamilnadu State 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

Project	<i>Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy</i>	<i>Draft EIA Report</i>
Project Proponent	<i>Thiru C Nithin Reddy</i>	
Project Location	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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- Socioeconomics

HG- Hydrology, ground water and water conservation

GEO –Geology

RH – Risk assessment and hazards management

SHW –Solid and Hazardous waste management

SC- Soil conservation

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

EXECUTIVE SUMMARY

1. Project Background:

The Proposed project total extent area is 3.00.0 Ha, It is a government Poromboke land in S.F.No.220/1 Part-2 of Gopanapalli Village, Hosur Taluk, and Krishnagiri District. The category of project is B1, It is a Rough stone quarry in Gopanapalli village. The area is situated on hilly terrain area sloping towards western side 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 method using shot-hole drilling and smooth blasting. Roughstone is removed by using hydraulis excavators. proposed bench height is 5 m and bench width is 5 m. The thickness of topsoil in this area is 3.0 m .

The quarry operation is proposed up to depth of 48 m-topsoil 3.0 m + Rough stone 45 m (surface ground level above height is 5 m and surface ground level below depth is 43 m). The total Geological Resources is about 1644538 m³ of Rough stone. The Mineable Reserves and proposed yearwise production is carried out 565895 m³ of Rough stone to be mined for ten years. The precise area letter and relevant mining laws in force. Mining Plan was approved by The Assistant Director, Dept of Geology and Mining vide Letter Rc.No.536/2022 Mines dated: 04.08.2022. Precise area communication letter was approved by District Collector, Krishnagiri district vide Letter Na.Ka.En.536/2022/Kanimam dated: 06.05.2022.

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 Wild life protection Act 1972, within the radius of 15Km.

2. NATURE & SIZE OF THE PROJECT

The Rough Stone Quarry over an extent of 3.00.0 Hectares land is located at Gopanapalli Village, Hosur Taluk, Krishnagiri District.

Mineral intends to quarry : Rough stone Quarry
District : Krishnagiri
Taluk : Hosur
Village : Krishnagiri
S. F. Nos. :220/1 Part-2

Project	Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy	Draft EIA Report
Project Proponent	Thiru C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

Extent : 3.00.0 Hectares

Table 1: Brief Description of the Project

S. No	Particulars	Details
1	Latitude	Latitude : 12°37'54.3668"N to 12°37'53.1120"N
2	Longitude	Longitude : 77°48'40.8039"E to 77°48'32.8686"E
3	Site Elevation above MSL	882 m from MSL
4	Topography	Hilly terrain topography
5	Land use of the site	Government Poramboke
6	Extent of lease area	3.00.0 Ha
7	Nearest highway	SH 17A – Hosur - Denkanikottai Road -2.78 km - W
8	Nearest railway station	Hosur Railway Station – 9.64 Km –N
9	Nearest airport	Hosur Airport – 6.12 Km - NW
10	Nearest town / city	<ul style="list-style-type: none"> • Town - Hosur – 12 Km – N • City - Hosur – 12 Km – N • District - Krishnagiri –45.46 Km - SE
11	Rivers / Canal	<ul style="list-style-type: none"> • Ponnaiyar River, 14.9 km, NE
12	Lake	<ul style="list-style-type: none"> ❖ Devaganapalli Lake, 1.71 km, NW ❖ Nagondapalli Lake, 5.08 km, NW ❖ Jona Banda Lake – 6.03 km, NE ❖ Achettapalli Lake, 6.18 km, N ❖ Poonapalli Lake, 7.35 km, NW ❖ Mathigiri lake, 6.23 km, N ❖ Onnalvadi Lake – 8.59 km, NE ❖ Karapalli Lake, 9.62 km, NNE
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	<ul style="list-style-type: none"> ❖ Sanamavu Reserve Forest, 7.82 km, E ❖ Denkanikottai Reserve Forest, 12.9 km, S ❖ Udedurugam R.F. – 13.9 km, SE ❖ Perandapalli R.F. – 11.4 km, NE
17	Seismicity	Proposed Lease area comes under Seismic zone-II
18	Defense Installations	Nil

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2.NEED FOR THE PROJECT

- ❖ Rough stone is quarried for producing crusher aggregates to the nearby building contractors, road contractors and nearby villagers.
- ❖ After the entire reserves mined out, the area will be used as water reservoir to have an artificial recharge to the nearby wells.
- ❖ The rough stone is hard and compact in nature. It can be crushed only in crushers for producing aggregates.
- ❖ As the mining continues, no reclamation or back filling is required.

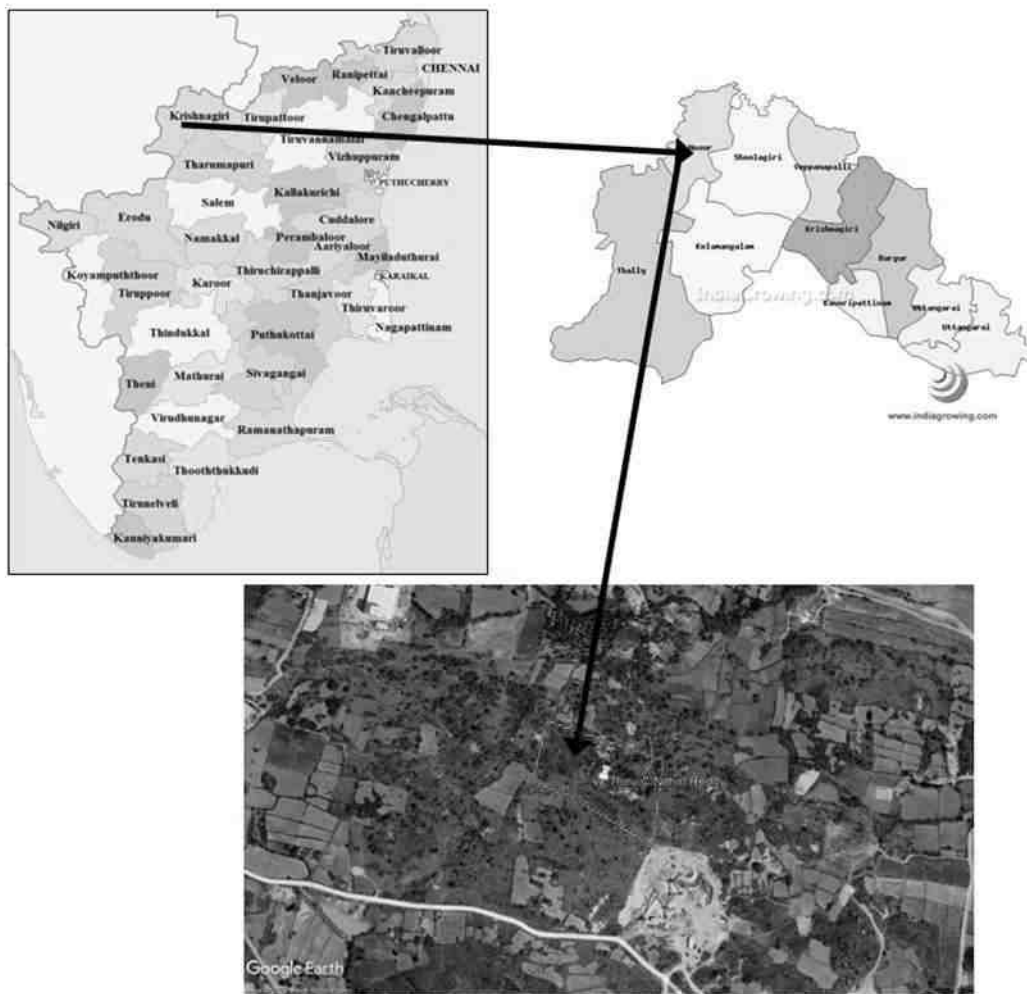


Figure 1: Location Map of the Project Site

Project	Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy	Draft EIA Report
Project Proponent	Thiru C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	



Figure 2: Google Image of the Project Site

4. CHARNOCKITE

Generally, the Charnockite is grey to greenish colored, coarse to medium grained, greasy nature with or without garnet. Because of the limited outcrops, the quarry sections are studied to infer the various interrelationships between the litho units. Charnockite is interbanded nature with crystalline carbonate rocks are observed in most of the quarry in Pandalgudi, Lakshmipuram, Gopalapuram, Sundakottai chinnakamanpatti, Weathering of the Charnockite on the surface gives a deceptive look of gneiss and in the quarry sections at depth the fresh charnockite is exposed, which are well exemplified in almost all the Charnockite quarry sections.

5. GEOLOGICAL RESOURCES

Table 2. Geological resources

Geological Reserves							
Section	Benck	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Geological Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	120	116	3			41760
	II	120	116	5	69600	69600	
	III	120	116	5	69600	69600	
	IV	120	116	5	69600	69600	

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy</i>	<i>Draft EIA Report</i>
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	V	120	116	5	69600	69600	
	VI	120	116	5	69600	69600	
	VII	120	116	5	69600	69600	
	VIII	120	116	5	69600	69600	
	IX	120	116	5	69600	69600	
Total=					626400	626400	41760
XY-CD	I	117	137	3			48087
	II	67	137	5	45896	45896	
	III	117	137	5	80145	80145	
	IV	117	137	5	80145	80145	
	V	117	137	5	80145	80145	
	VI	117	137	5	80145	80145	
	VII	117	137	5	80145	80145	
	VIII	117	137	5	80145	80145	
	IX	117	137	5	80145	80145	
Total=					687055	687055	48087
Grand Total=					1313455	1313455	89847

Table 3. Mineable Resources

Mineable Reserves							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) Cu.m.
XY-AB	I	110	98	3			32340
	II	109	97	5	52865	52865	
	III	104	87	5	45240	45240	
	IV	99	77	5	38115	38115	
	V	94	67	5	31490	31490	
	VI	89	57	5	25365	25365	
	VII	84	47	5	19740	19740	
	VIII	79	37	5	14615	14615	
	IX	74	27	5	9990	9990	
	X	69	17	5	5865	5865	
Total=					234285	234285	32340
XY-CD	I	107	119	3			38199
	II	67	118	5	39530	39530	
	III	106	112	5	59360	59360	
	IV	101	102	5	51510	51510	
	V	96	92	5	44160	44160	
	VI	91	82	5	37310	37310	
	VII	86	72	5	30960	30960	
	VIII	81	62	5	25110	25110	
	IX	76	52	5	19760	19760	
	X	71	42	5	14910	14910	
Total=					322610	322610	38199
Grand Total=					565895	565895	70539

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy</i>	<i>Draft EIA Report</i>
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Table 4. Year wise Production Plan

Year wise Development and Production (First Five (I-V)Years)								
Year	Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) in Cu.m.
I-YEAR	XY-AB	I	110	98	3			32340
		II	109	97	7	52865	52865	
	XY-CD	I	107	119	3			38199
		II	67	118	7	39530	39530	
II-YEAR	XY-AB	III	104	87	7	45240	45240	
III-YEAR	XY-AB	III	106	112	7	59360	59360	
IV-YEAR	XY-AB	IV	99	77	7	38115	38115	
	XY-CD	IV	101	102	7	51510	51510	
V-YEAR	XY-AB	V	94	67	7	31490	31490	
	XY-CD	V	96	92	7	44160	44160	
Total (I-V Years) =						362270	362270	70539

The proposed rate of production of Rough stone is estimated as 362270 m³ for first five (I-V) years. The average proposed rate of production of Rough stone about 92395 m³.

Year wise Development and Production (Second Five (VI-X)Years)							
Year	Section	Bench	L (m)	W (m)	D (m)	Volume (Cu.m.)	Recoverable Reserve Cu.m(100%)
VI-YEAR	XY-AB	VI	89	57	5	25365	25365
	XY-CD	VI	91	82	5	37310	37310
VII-YEAR	XY-AB	VII	84	47	5	19740	19740
	XY-CD	VII	86	72	5	30960	30960
VIII-YEAR	XY-AB	VIII	79	37	5	14615	14615
	XY-CD	VIII	81	62	5	25110	25110
IX-YEAR	XY-AB	IX	74	27	5	9990	9990
	XY-CD	IX	76	52	5	19760	19760
X - YEAR	XY-AB	X	69	71	5	5865	5865
	XY-CD	X	71	42	5	14910	14910
TOTAL (VI-X Years) =						203625	203625

The proposed rate of production of Rough stone is estimated as 203625 m³ for the next five (VI-X) years. The average proposed rate of production of Rough stone about 62675 m³

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6. MINING

Opencast mining

Opencast method of semi mechanized mining is adopted to extract Rough Stone. However, as far as the quarrying of Rough stone is concerned, observance of the provisions of Regulation 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 Mine Act-1952.

Process Description

- The reserves and resource are arrived based upon the Geological investigation
- Removal of Rough Stone by Excavators by Drilling and Blasting.
- Shallow Drilling With Jackhammer 25.5mm Dia.
- Minimum Blasting With Class 3 Explosives.

7. Water Requirement

This Rough stone quarry project does not require huge water and electricity for the project.

Table 5. Water Balance

Purpose	Quantity	Sources
Drinking Water	0.9 KLD	Packaged Drinking water vendors available in Goolisandram Village which is about 0.37 km from NNW side of the area.
Green belt	0.5 KLD	From Hired Water Tanker.
Dust suppression	0.5 KLD	From Hired Water Tanker.
Total	1.9 KLD	

8. Manpower

The nearby villagers will be getting employment benefits in the proposed working quarry.

Table 6. Man Power

1.	Skilled	Operators	2 No.
		Mechanic	1 No.
		Blaster	1 No.
2.	Semi – skilled	Drivers	2 Nos
3.	Unskilled	Musdoor / Labors	5 Nos
		Cleaners	3 Nos
		Office boy	1 No
4.	Management & Supervisory		3 Nos
Total			18 Nos

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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) Existing other quarries:

S.No	Name of lessee	Village & Taluk	Mineral	S.F.No	Extent in Ha	GO No. & Date	Lease Period
1.	P.Nagarajareddy , S/o. Pappireddy, D.No.2/32, Balageri Village, Mudhuganapalli Post, Hosur, Krishnagiri	Hospauram village, Denkanikotta i Taluk	Rough stone	457 (Part 1)	2.00.0	Rc. No. 111/ 2016/ Mines dated: 08.08.2016	17.08.2016 To 16.08.2026
2.	P.Venkata reddy, S/o Pedha Oul Reddy, 3/213, Periya Kodipalli Village, Kempat, Muttur, Denkanikottai, Krishnagiri	Hosapuram village, Denkanikotta i taluk	Rough stone	457 (Part 2)	3.70.0	Rc.No.112 / 2016/ Mines dated: 26.02.2020	26.02.2020 to 25.02.2030

2) Details of abandoned /Old Quarries

S. No.	Name of the Owner	Village & Taluk	S.F.Nos.	Extent in Hect.	Lease Period
.....Nil.....					

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3) Details of Present Proposed quarries

S. No.	Name of the Owner	Village & Taluk	S.F.Nos.	Extent in Hect.	Lease Period
1	Thiru.S.Raghu	Gopanapalli village, Hosur taluk	381(Part-1)	1.30.0	Precise area given
2	M/s. Natural stone	Gopanapalli village, Hosur taluk	220/1(Part-1)	3.00.0	Precise area given
3	Thiru. Nithin Reddy	Gopanapalli village, Hosur taluk	220/1(Part-2)	3.00.0	Instant Proposal
4	Thiru. Sri Krish	Gopanapalli village, Hosur taluk	220/1(Part-3)	3.00.0	Precise area given
5	Thiru.Vijayakumar	Gopanapalli village, Hosur taluk	220/1(Part-4)	2.00.0	Precise area given
6	Thiru. Dhivakar	Gopanapalli village, Hosur taluk	381/1(Part-2)	1.50.0	Precise area given

10. Land Requirement

The total extent area of the project is 3.00.0 Ha, government Poromboke Land in Village of Gopanapalli, Hosur Taluk, and Krishnagiri District.

Table 9 Land Use Breakup

S. No.	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)
1.	Quarrying Pit	Nil	2.36.0
2.	Infrastructure	Nil	0.01.0
3.	Roads	Nil	0.01.0
4.	Green Belt	Nil	0.62.0
5.	Unutilized	3.00.0	Nil
	Total	3.00.0	3.00.0

11. Human Settlement

There are no habitations within 300m radius. There are villages located in this area within 15 km radius of the quarry.

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Table 10 Habitation

S.No	Name of the Village	Approximate distance	Direction from lease applied area	Approximate Habitations
1.	Goolisandram	1.0Km	North	185
2.	Pothasandhira	2.5Km	East	250
3.	Nagappan Agraharam	1.5Km	South	370
4.	Agraharam	3.0Km	West	310

12. Power Requirement

The Electricity for Mines office and Lights only at nights (working is restricted on day time only between 9 Am to 5 Pm). Diesel (HSD) will be used for quarrying machineries around **187882 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 time the power will be taken from nearby electric poles after obtaining permission from concerned authorities.

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.

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- i) Average Minimum Temperature : 18° C
- ii) Average Maximum Temperature. : 38°Celsius
- iii) Average Annual Rainfall of the area: 800 mm-900 mm

13.2 Air Environment

Ambient air monitoring was carried out on 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), and Nitrogen Dioxide (NO₂) were monitored and the results are summarized below.

The baseline levels of PM₁₀ (39- 66 µg/m³), PM_{2.5} (15- 34 µg/m³), SO₂ (6-21 µg/m³), NO₂ (10- 37 µg/m³), all the parameters are well within the standards prescribed by National Ambient Air Quality during the study period from January to March 2023.

13.3 Noise Environment

The maximum Day noise and Night noise were found to be 65 dB(A) and 49 dB(A) respectively in Pattalama Temple. The minimum Day Noise and Night noise were 46 dB(A) and 36 dB(A) respectively which was observed in Anjaneya Temple. The observed values are all well within the Standards prescribed by CPCB.

13.4 Water Environment

- The average pH ranges from 6.98 – 7.82.
- TDS value varied from 505 mg/l to 975 mg/l
- Hardness varied from 236 to 634 mg/l
- Chloride varied from 33.3 to 286 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 4.7 to 8.32 with organic matter 0.59 to 1.25 %. 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.

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14. Rehabilitation/ Resettlement

The overall land of the mine is a Government Poramboke land. There is no hutment in the lease area. No human being will be displaced from the project area so no person will be affected contrary local people will get job opportunities and better facilities. There is no rehabilitation & resettlement of people is required.

15. Greenbelt Development

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 component of Environmental Management Plan, which will improve ecology, environment and quality of the surrounding area.
3. Local trees like Neem, Vilvam, Panai, etc will be planted along the lease boundary and avenues as well as over Non-active dumps at a rate of 650 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, Vilvam, Vaagai, Eachai, Naval, Mantharai, Magizha Maram, Vila Maram, Poo Marudhu, Panai, Marudha maram, Thandri, Sengondrai, Poovarasu, Thethankottai Maram, Pungam	80%	1500
Total		1500

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.

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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 43690000/-** 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 (Rs.)
1	Fixed cost	Rs.43890000/-
2	Operational cost	Rs.25,00,000/-
3	EMP cost	Rs.43690000

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.	Provision of basic amenities such as safe drinking water, Hygienic toilet facilities, furniture's, Greenbelt development and Environmental awareness books in library, Solar lights to Govt Middle School, Gopanahalli	5,00,000
Total		5,00,000

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21. Benefits of the Project

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

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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

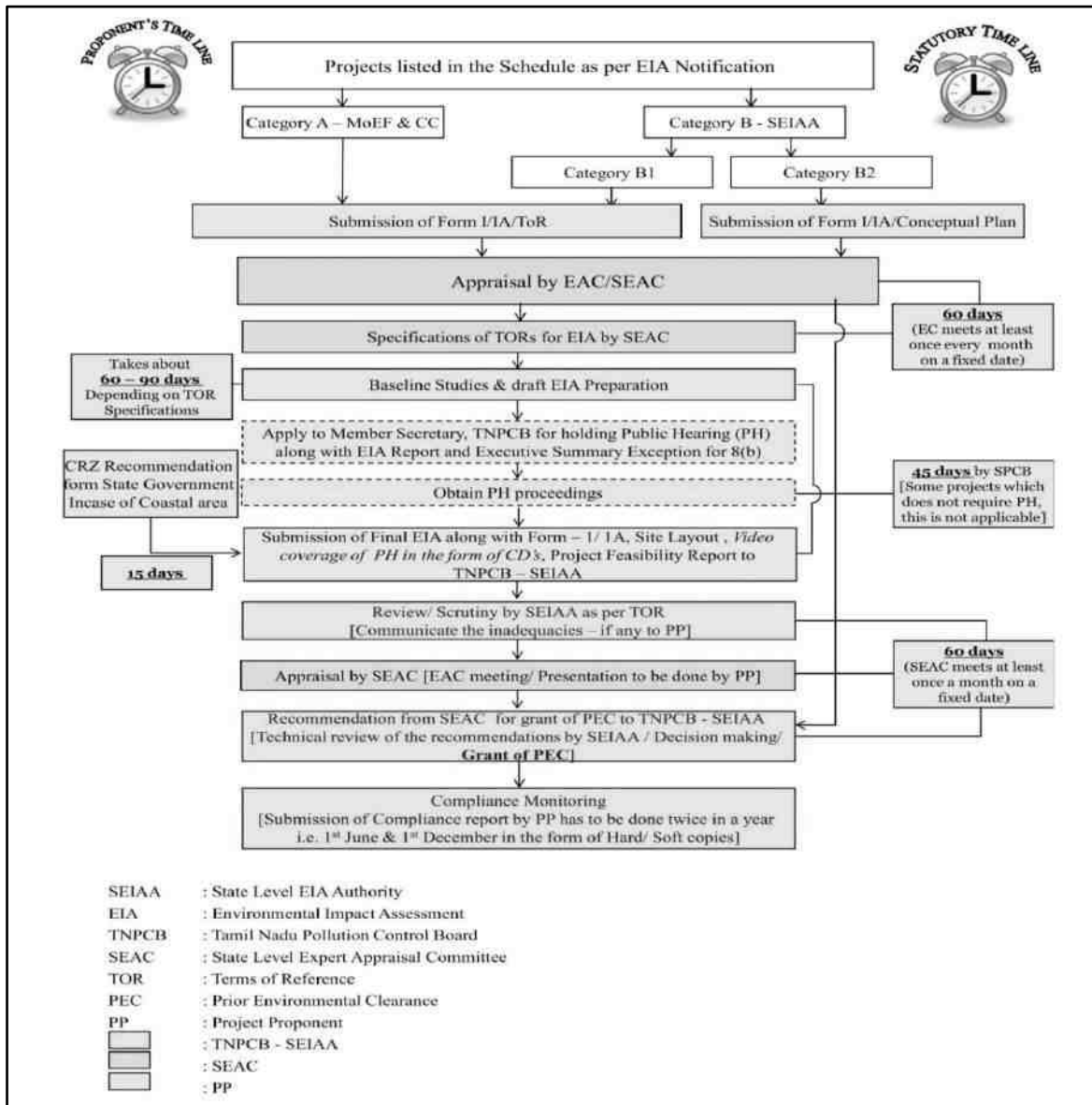
Minerals of Economic importance found in Krishnagiri District are mainly Apatite, Corundum Copper, Gold, Iron Ore, Limestone, Kankar, Vermiculite and Dimensional Stones. For good dimensional stones, this district is unique in possessing both Multi Coloured and black granite occurrences. The Multi Coloured granite named as “Paradiso” is extensively quarried in Chendarapalli - Sulamalai- Modikuppam-Velampatti belt. The Hosur- Denkanikottai belt is endowed with Multi Coloured granite deposits. The black granite deposits of Krishnagiri, Hosur and Denkanikottai taluks contains potential deposits of black granite.

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.

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1.4 TERMS OF REFERENCE (TOR)

The Terms of Reference have been issued by SEAC TN vide Letter No. SEIAA-TN/F. No. 9570/SEAC/ToR-1348/2023 Dated: 10.02.2023. 45 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.

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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 be also 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.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

1.7 DETAILS OF PROJECT PROPONENT

Project Proponent : Thiru C Nithin Reddy
Status of the Proponent : Individual
Proponent's name & address : Thiru C Nithin Reddy,
S/o. Chandra Reddy,
No. 83, Avadadenahalli Village,
Marsur post,
Anekal Taluk,
Bangalore district.

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) Government 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 opencast mechanised method on allotted mine lease area at Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu. It is a hilly terrain area. The total allotted mine lease for the proposed project is 3.00.0 Ha with their maximum production capacity i.e., 92395 m³ of Rough stone for the period of Five years only.

Project	Rough stone Quarry- 3.00.0 Ha by Thiru C Nithin Reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

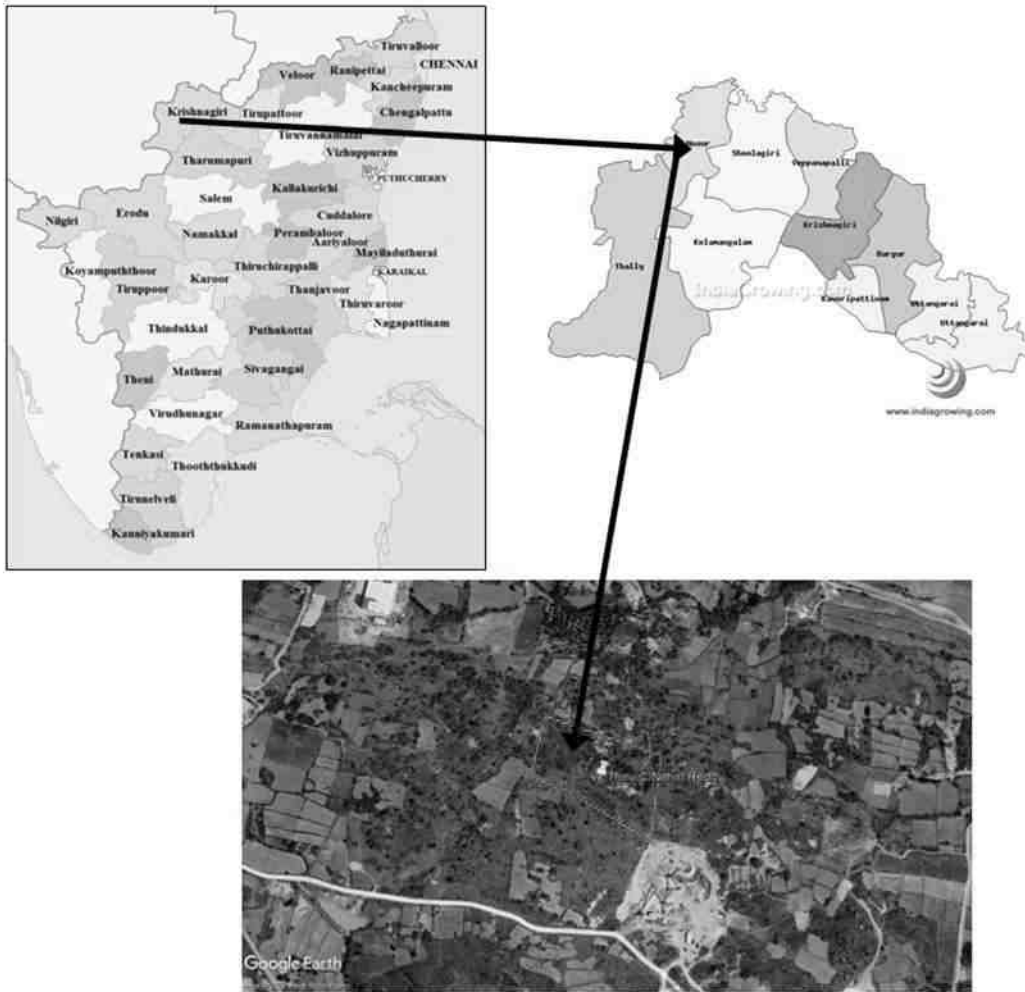


Figure 1.1: Location Map of the Project site

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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 Gopanapalli Village, Hosur Taluk of Krishnagiri District, Tamil Nadu. It is a hilly terrain area. We have obtained fresh mining plan from 2022 to 2027 from Department of Geology and Mining, Krishnagiri District for 3.00.0 Ha land area in the S.F.Nos. 381(Part-1) for a proposed mining depth of 51 m below ground level and five years production of 23,12,38 m³ of Rough stone.

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) Government 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) Existing other quarries:

S. No.	Name of the Owner	Village & Taluk	S.F.Nos.	Extent in Hect.	Lease Period
			.....Nil.....		

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

2) Details of abandoned /Old Quarries

S. No.	Name of the Owner	Village & Taluk	S.F.Nos.	Extent in Hect.	Lease Period
.....Nil.....					

3) Details of Present Proposed quarries

S. No.	Name of the Owner	Village & Taluk	S.F.Nos.	Extent in Hect.	Lease Period
1	Thiru.S.Raghu	Gopanapallai village, Hosur taluk	381(Part-1)	1.30.0	Instant Proposal
2	M/s.Natural stone	Gopanapallai village, Hosur taluk	220/1(Part-1)	3.00.0	Precise area given
3	Thiru.Nithin Reddy	Gopanapallai village, Hosur taluk	220/1(Part-2)	3.00.0	Precise area given
4	Thiru.Sri Krish	Gopanapallai village, Hosur taluk	220/1(Part-3)	3.00.0	Precise area given
5	Thiru.Vijayakumar	Gopanapallai village, Hosur taluk	220/1(Part-4)	2.00.0	Precise area given
6	Thiru.Dhivakar	Gopanapallai village, Hosur taluk	381/1(Part-2)	1.50.0	Precise area given

2.1.1 Need for the 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.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

Rocks and minerals of economic importance found to occur in Krishnagiri District are Rough stone deposits suitable for the production of Jelly, Cut stones and Pillar Stones.

As a result of developmental activities and market demand for minor minerals, mining of minor mineral is vital. In addition to that, geological reserves of rough stone is abundant in the project area which is evident from the mine activities carried out in the nearby sites.

2.2 BRIEF DESCRIPTION OF THE PROJECT

Table 2-2 Salient Features of the Project

S. No.	Description	Details
1	Project Name	Thiru C Nithin Reddy Rough stone Quarry
2	Proponent	Thiru C Nithin Reddy
3	Mining Lease Area Extent	3.00.0 Ha
4	Location	S.F.No.381(Part-1)
5	Latitude	Latitude : 12°37'54.3668"N to 12°37'53.1120"N
6	Longitude	Longitude : 77°48'40.8039"E to 77°48'32.8686"E
7	Topography	Hilly terrain topography
8	Site Elevation above MSL	882 m from MSL
9	Topo sheet No.	57-H/14
10	Minerals of Mine	Rough Stone Quarry
11	Proposed production of Mine	Proposed Capacity of reserves – Rough stone : I-V years -362270 m ³ VI-X years-203625 m ³
12	Ultimate depth of Mining	48 m below ground level
13	Method of Mining	Open cast mechanized mining
14	Water demand	1.9 KLD
15	Source of water	Water will be supplied through tankers supply
16	Man power	18Nos.
17	Mining Plan Approval	Mining Plan was approved by Deputy Director , Department of Geology and Mining, Krishnagiri District vide letter Roc.No.536/2022/ Mines dated 04.08.2022
18	Precise area communication letter	Precise area communication letter received from the District Collector, Krishnagiri District vide letter Rc. No. 536/2022 Kanimam dated 06.05.2022.
19	Production details	Geological reserves: 1313455 m ³ of Rough stone Proposed year wise reserves-(I-V years) = 362270 m ³ of Rough stone (VI-X years) =203625 m ³ of Rough stone

Project	Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru. C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

20	Boundary Fencing	7.5 m barrier all along the boundary for adjacent patta lands and 10 m safety distance for Govt. Lands. Fencing will be provided.
21	Disposal of overburden	Top soil formation will be removed and transported to the needy end user only after obtaining permission and paying necessary seigniorage fees to the Government.
22	Ground water	The ground water table is reported as 88m BGL in nearby open wells and bore wells of this area. Mining depth taken as 48m . Now, 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 Goolisandram village which is 0.37 Km.

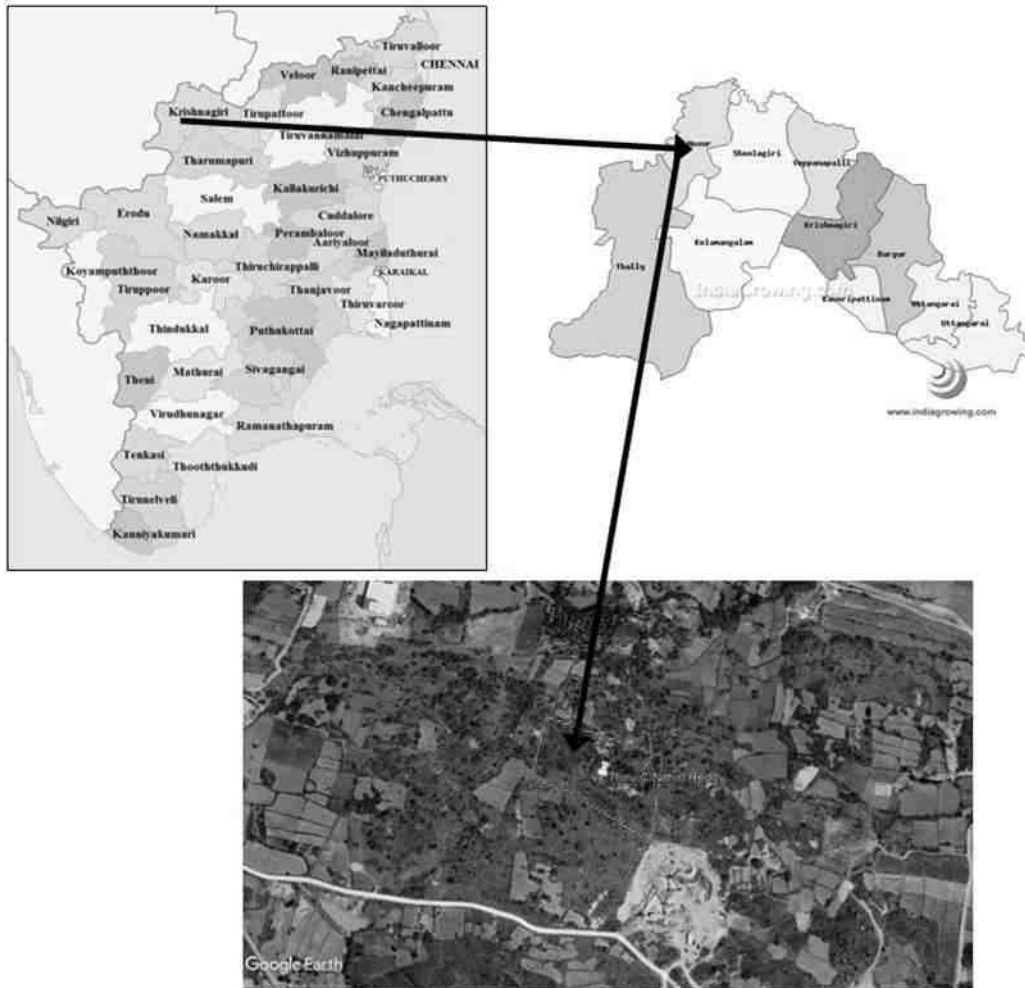


Figure 2.1: Location Map of the Project Site

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	



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

2.2.1 Site Connectivity:

The site is connected to the roadways as follows.

SH 17A – Hosur to Denkanikottai – 2.7 km, W



Figure 2.3: Site Connectivity

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

2.3 LOCATION DETAILS:

Table 2-3: Location Details

S. No	Particulars	Details
1.	Latitude	12°37'54.3668"N to 12°37'53.1120"N
2.	Longitude	77°48'40.8039"E to 77°48'32.8686"E
3.	Site Elevation above MSL	882 m from MSL
4.	Topography	Plain terrain topography
5.	Land use of the site	Government Poramboke
6.	Extent of lease area	3.00.0 Ha

Project	Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru. C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

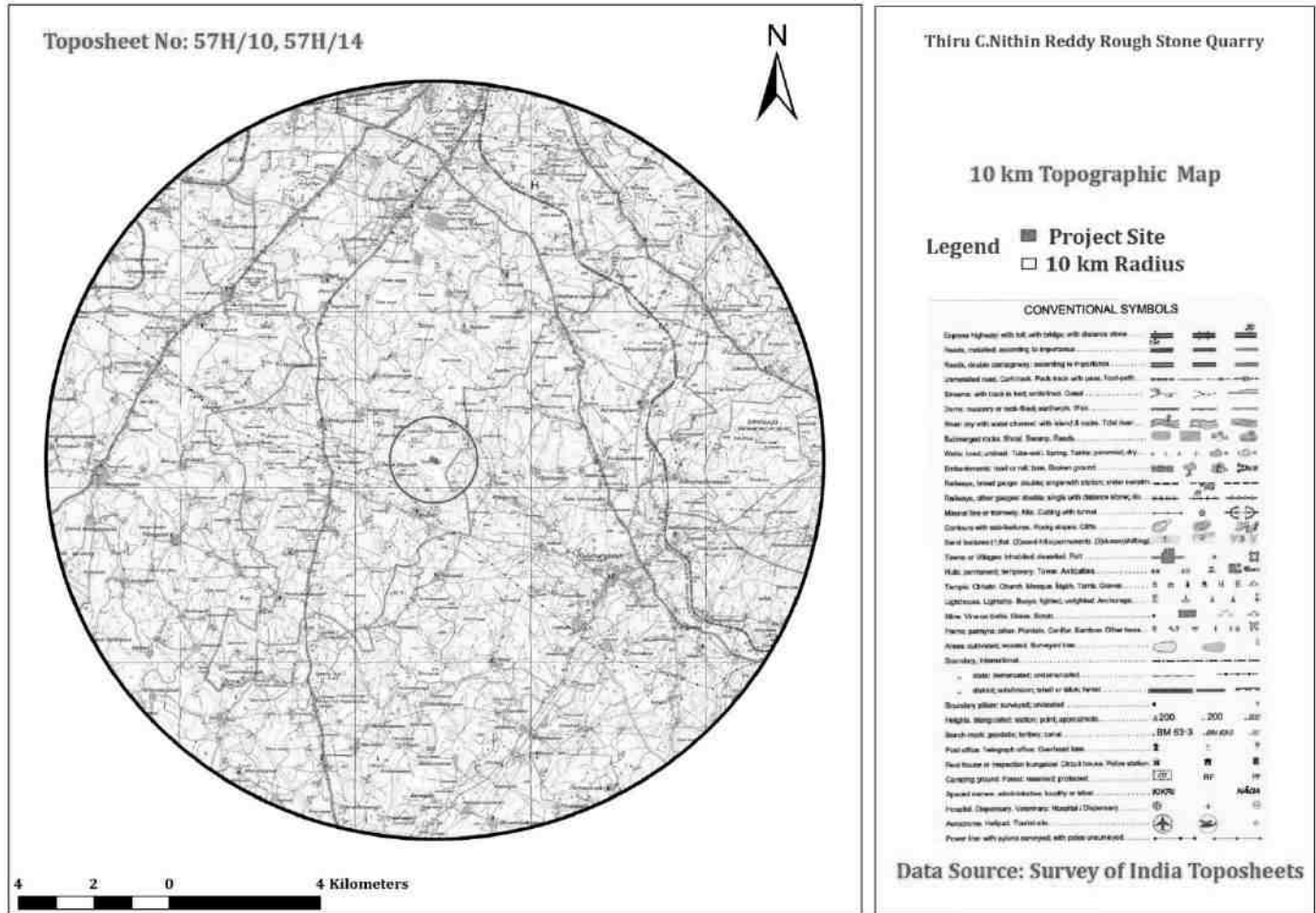


Figure 2.4: Topo Map of Project Site

Project	Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy	Draft EIA Report
Project Proponent	Thiru. C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	



Figure 2.5: Environmental Sensitivity within 15km radius

Project	Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru. C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

2.3.1 Site Photographs

The site photographs of the project site are as follows

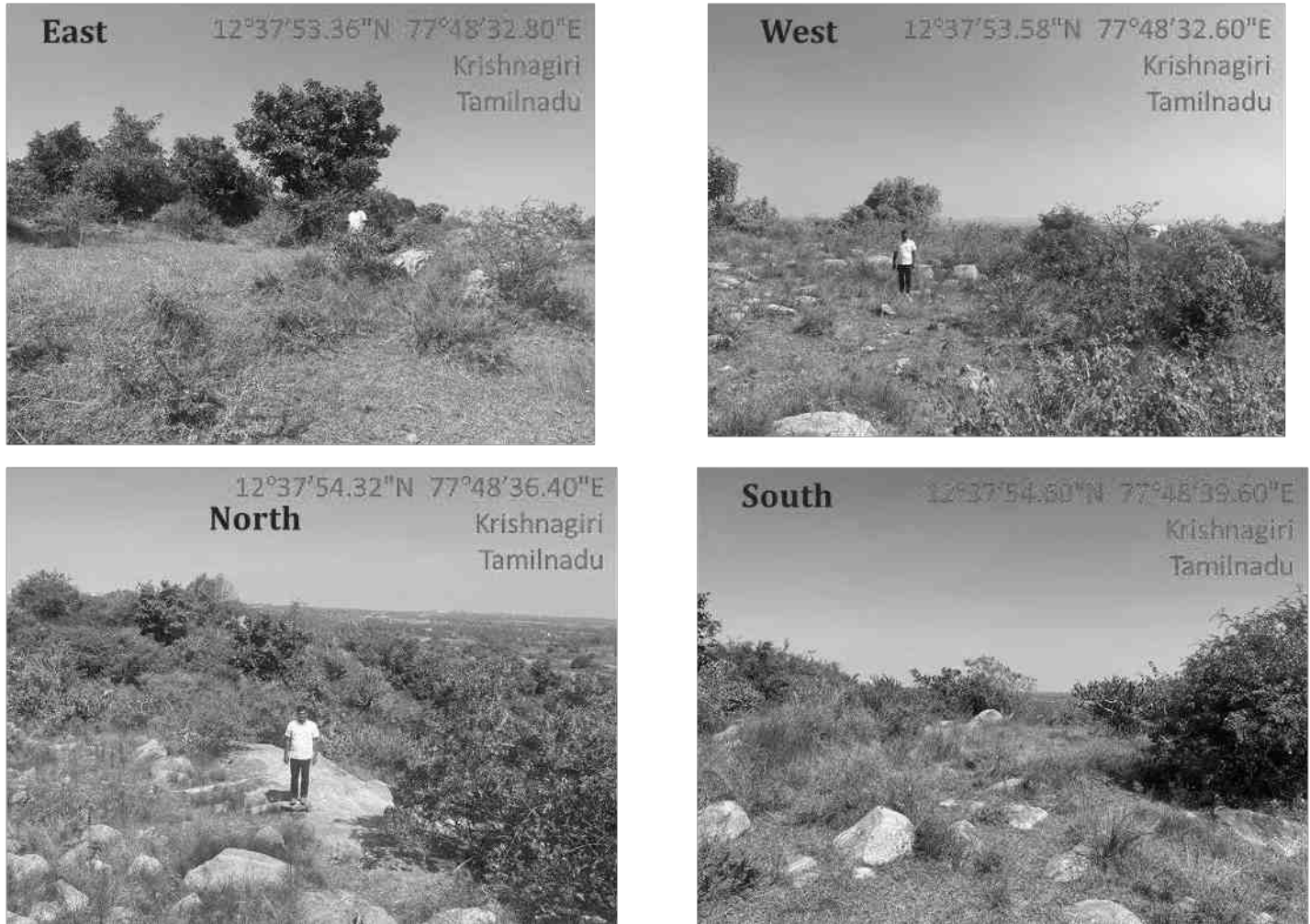


Figure 2.6: Site Photographs

2.3.2 Land Use Breakup of the Mine Lease Area

The Mine Lease area is Plain 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	Nil	2.36.0

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

2.	Infrastructure	Nil	0.01.0
3.	Roads	Nil	0.01.0
4.	Green Belt	Nil	0.62.0
5.	Unutilized	3.00.0	Nil
	Total	3.00.0	3.00.0

2.3.3 Human Settlement

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

Table 2-5: Habitation

S.No	Name of the Village	Approximate distance	Direction from lease applied area	Approximate Habitations
1.	Goolisandram	1.0Km	North	185
2.	Pothasandhira	2.5Km	East	250
3.	Nagappan Agraharam	1.5Km	South	370
4.	Agraharam	3.0Km	West	310

2.4 LEASEHOLD AREA

The Rough Stone Quarry mine of 3.00.0 Ha is a Government Poromboke land . The lease area falls in S.F No: 381(Part-1) of Gopanapalli Village, Hosur 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

The geological formations of the district belong mainly to Archaean age along with rock of Proterozoic age. The former is represented 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

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
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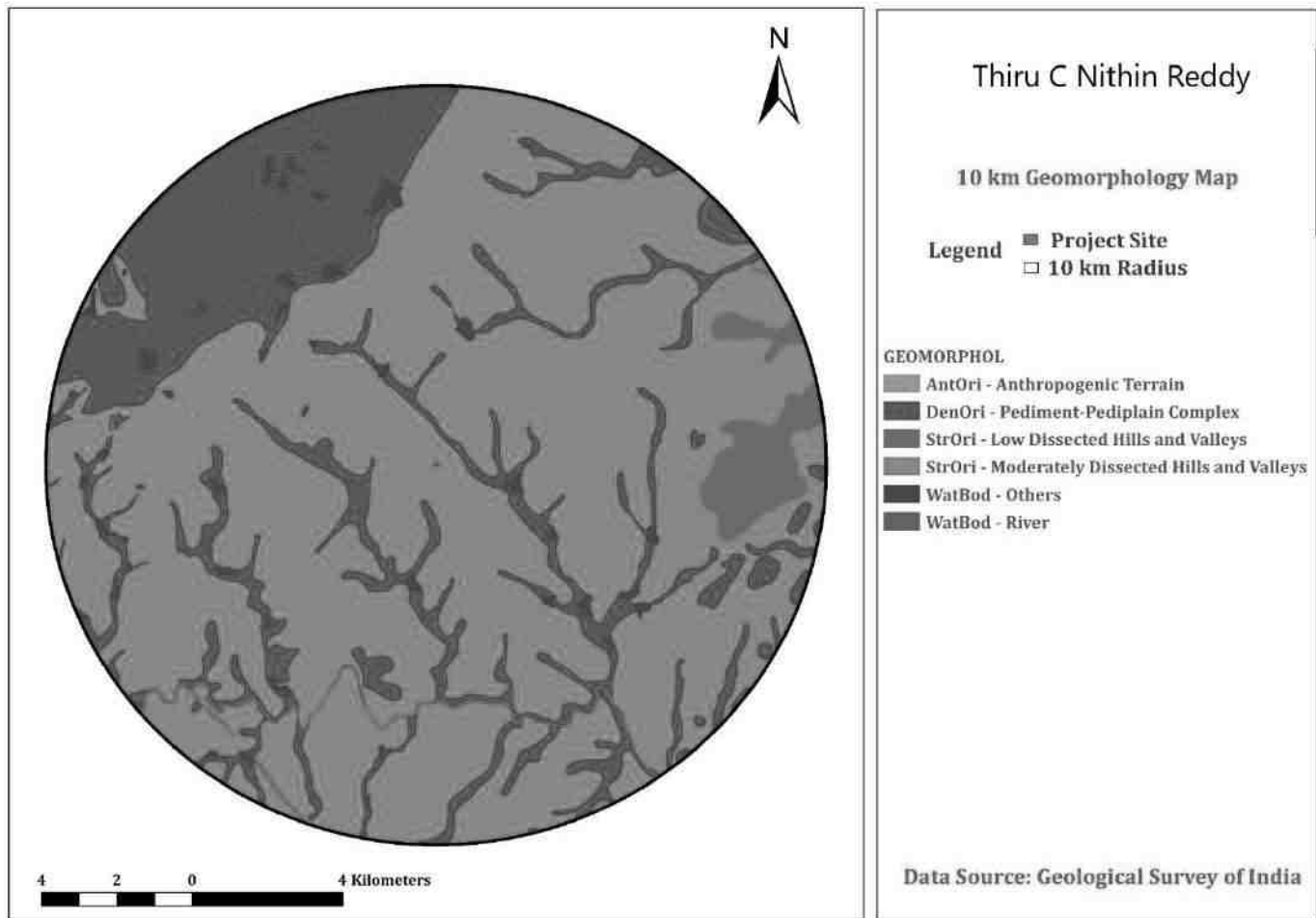


Figure 2.7: Geomorphology

Project	Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru. C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

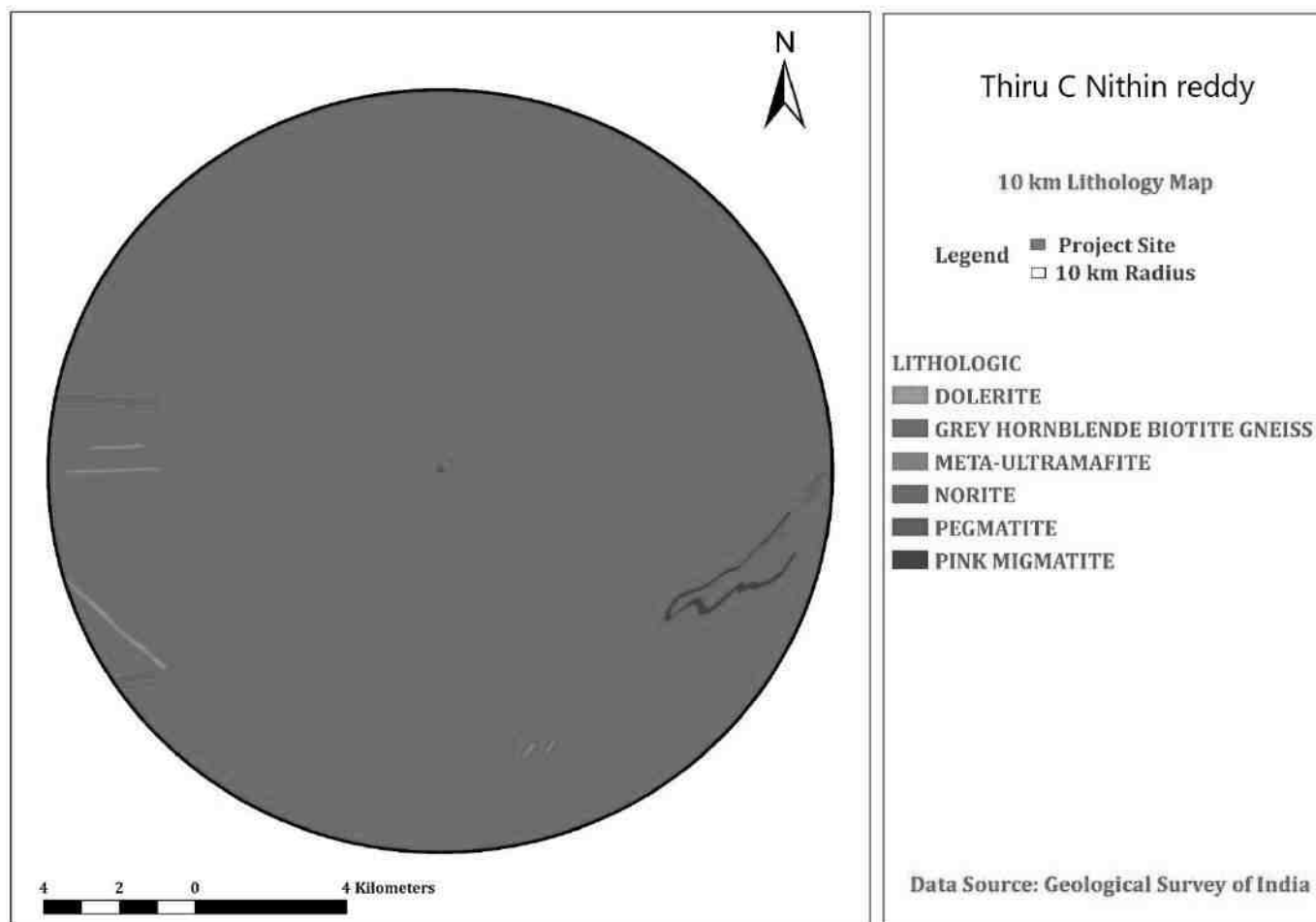


Figure 2.8 Lithology

2.6 QUALITY OF RESERVES:

The mining lease area is of 3.00.0 Ha, with production capacity of 565895 m³ of Rough Stone for 10 years. Due to significant role in the domestic as well as infrastructural market, making the mining of Stone and gravel 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 Reserves	1313455 m ³ of Rough stone
3	Recoverable Reserves	565895 m ³ of Rough stone

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

4	Proposed Production	565895 m ³ of Rough stone for 10 years
5	Elevation Range of the Mine Site	882m AMSL

2.6.1 Geological Resources

Table 2-7: Geological Resources

Geological Resources							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Geological Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	120	116	3			41760
	II	120	116	5	69600	69600	
	III	120	116	5	69600	69600	
	IV	120	116	5	69600	69600	
	V	120	116	5	69600	69600	
	VI	120	116	5	69600	69600	
	VII	120	116	5	69600	69600	
	VIII	120	116	5	69600	69600	
	IX	120	116	5	69600	69600	
Total=					626400	626400	41760
XY-CD	I	117	137	3			48087
	II	67	137	5	45896	45896	
	III	117	137	5	80145	80145	
	IV	117	137	5	80145	80145	
	V	117	137	5	80145	80145	
	VI	117	137	5	80145	80145	
	VII	117	137	5	80145	80145	
	VIII	117	137	5	80145	80145	
	IX	117	137	5	80145	80145	
Total=					687055	687055	48087
Grand Total=					1313455	1313455	89847

2.6.2 Mineable Reserves

Table 2-8: Mineable Reserves

Mineable Reserves							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) Cu.m.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

XY-AB	I	110	98	3			32340
	II	109	97	5	52865	52865	
	III	104	87	5	45240	45240	
	IV	99	77	5	38115	38115	
	V	94	67	5	31490	31490	
	VI	89	57	5	25365	25365	
	VII	84	47	5	19740	19740	
	VIII	79	37	5	14615	14615	
	IX	74	27	5	9990	9990	
	X	69	17	5	5865	5865	
Total=					234285	234285	32340
XY-CD	I	107	119	3			38199
	II	67	118	5	39530	39530	
	III	106	112	5	59360	59360	
	IV	101	102	5	51510	51510	
	V	96	92	5	44160	44160	
	VI	91	82	5	37310	37310	
	VII	86	72	5	30960	30960	
	VIII	81	62	5	25110	25110	
	IX	76	52	5	19760	19760	
	X	71	42	5	14910	14910	
Total=					322610	322610	38199
Grand Total=					565895	565895	70539

2.6.3 Year wise Production Plan

Table 2-9: Year wise Production Plan

Year wise Development and Production (First Five (I-V)Years)								
Year	Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) in Cu.m.
I-YEAR	XY-AB	I	110	98	3			32340
		II	109	97	7	52865	52865	
	XY-CD	I	107	119	3			38199
		II	67	118	7	39530	39530	
II-YEAR	XY-AB	III	104	87	7	45240	45240	
III-YEAR	XY-AB	III	106	112	7	59360	59360	
IV-YEAR	XY-AB	IV	99	77	7	38115	38115	
	XY-CD	IV	101	102	7	51510	51510	
V-YEAR	XY-AB	V	94	67	7	31490	31490	
	XY-CD	V	96	92	7	44160	44160	
Total (I-V Years) =						362270	362270	70539

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Th Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

The proposed rate of production of Rough stone is estimated as 362270 m³ for first five (I-V) years. The average proposed rate of production of Rough stone about 92395 m³

Year wise Development and Production (Second Five (VI-X)Years)							
Year	Section	Bench	L (m)	W (m)	D (m)	Volume (Cu.m.)	Recoverable Reserve Cu.m(100%)
VI-YEAR	XY-AB	VI	89	57	5	25365	25365
	XY-CD	VI	91	82	5	37310	37310
VII-YEAR	XY-AB	VII	84	47	5	19740	19740
	XY-CD	VII	86	72	5	30960	30960
VIII-YEAR	XY-AB	VIII	79	37	5	14615	14615
	XY-CD	VIII	81	62	5	25110	25110
IX-YEAR	XY-AB	IX	74	27	5	9990	9990
	XY-CD	IX	76	52	5	19760	19760
X - YEAR	XY-AB	X	69	71	5	5865	5865
	XY-CD	X	71	42	5	14910	14910
TOTAL (VI-X Years) =						203625	203625

The proposed rate of production of Rough stone is estimated as 203625 m³ for the next five (VI-X) years. The average proposed rate of production of Rough stone about 62675

Project	Rough stone Quarry- 4.24.0 Ha by Thiru.S.Marimuthu	Draft EIA Report
Project Proponent	Thiru.S.Marimuthu	
Project Location	Kottaiyur Village, Virudhunagar Taluk, Virudhunagar District	

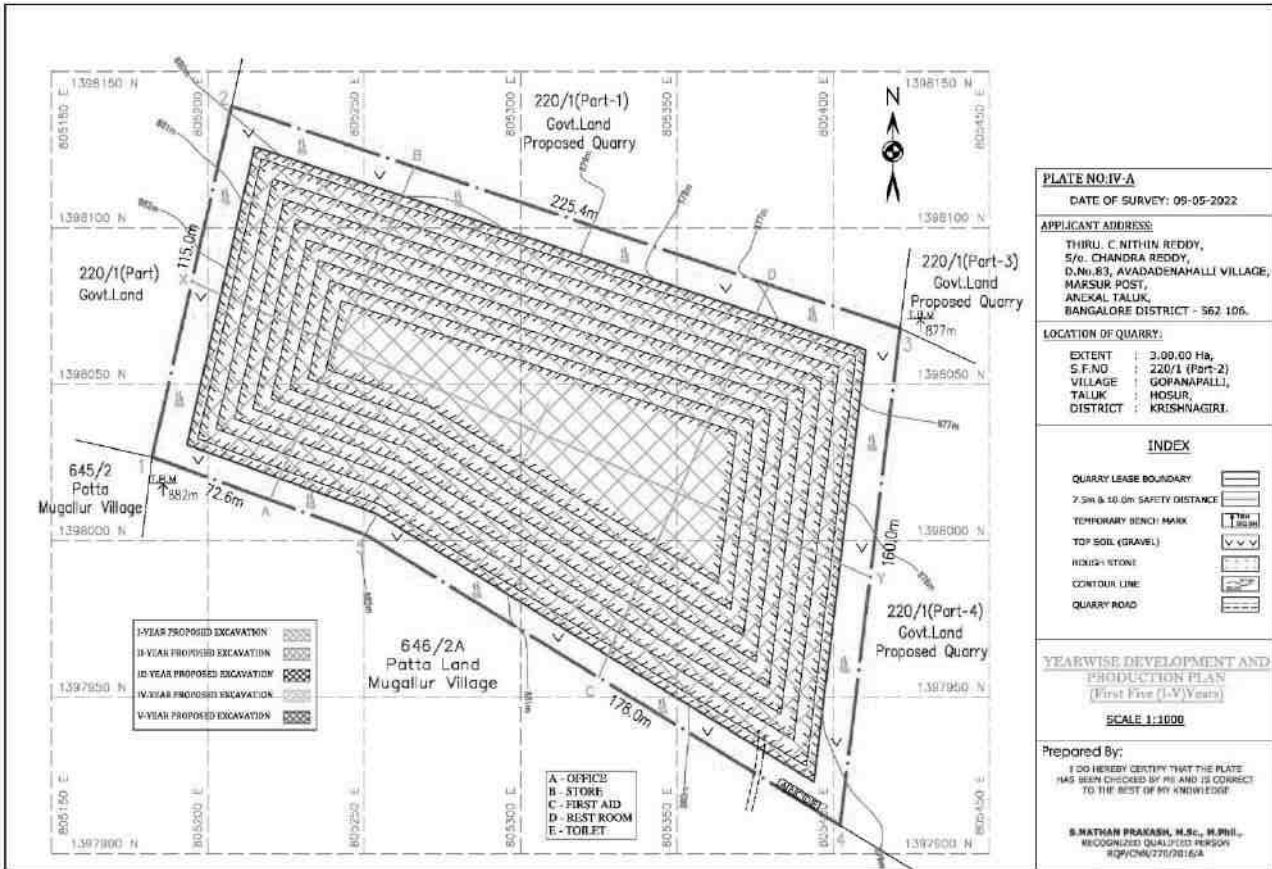


Figure 2.9 Year wise Production Plan

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli village, Hosur tehsil, Krishnagiri district</i>	

2.7 TYPE OF MINING

The proposed project is an open cast mechanized mining with one with 5.0 meter vertical bench with a bench width of 5.0 meter. 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 is proposed to quarry at 5m bench height & 5m width with conventional Open cast mechanized method. The quarrying operation will be carried out in conjunction with conventional method of mining using Jack hammer drilling and blasting for shattering effect and loosen the Rough stone.

2.7.2 *Overburden*

The entire lease area is covered 3.0m of Top Soil (Gravel) and the estimated quantity of Top soil(Gravel) is 32340 m³. 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.

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	Excavator of 0.9 Cu.m bucket capacity Jack Hammer (30-32 mm dia) Tractor mounted compressor
Loading Equipment	Excavator of 0.9 Cu.m bucket capacity
Transportation	Tipper 1No. of 10/20 M.T capacity

Blasting:

2.7.3.1 Blasting Pattern:

The quarrying operation will be carried out in conjunction with conventional method of mining using Jack hammer drilling and blasting for shattering effect and loosen the Rough stone.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli village, Hosur tehsil, Krishnagiri district</i>	

2.7.3.2 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% = 1.05MT / hole
10	Charge per hole	140 gms of 25mm dia cartridge

2.7.3.3 Types of Explosives to be used:

Slurry Class 3 explosives, type of nitro compound 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. Detonators of Class 3 and Safety fuse of Class 6 are used.

2.7.3.4 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

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% = 1.05MT / hole
10	Charge per hole	140 gms of 25mm dia cartridge

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli village, Hosur tehsil, Krishnagiri district</i>	

2.7.3.5 Storage & Safety measures taken during blasting:

The project proponent “Thiru C Nithin Reddy” 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

	Skilled	Operator	2
		Mechanic	1
		Blaster/Mat	1
2	Semi skilled	Driver	2
3	Unskilled	Musdoor/Labours	5
		Unskilled-helpers	4
4	Management and Supervisory staff		3
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 Goolisandram village and other water will be source from nearby road tankers supply.

Table 2-14: Water Requirement

Purpose	Quantity	Sources
Drinking Water	0.9 KLD	Packaged Drinking water vendors available in Goolisandram which is about 0.37 Km-NNW of the area.
Green belt	0.5KLD	Other domestic activities through road tankers supply
Dust suppression	0.5KLD	From road tankers supply
Total	1.9 KLD	

2.9 PROJECT IMPLEMENTATION SCHEDULE

Project	Rough stone Quarry- 3.00.0 Ha by Thiru. C Nithin Reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru. C Nithin Reddy	
Project Location	Gopanapalli village, Hosur tehsil, Krishnagiri district	

The implementation schedule of the proposed Mine Lease of Thiru C Nithin Reddy (3.00.0 ha) is as follows.

Table 2-15: Mining Schedule

MINING SCHEDULE					
Activity	Feb -24	Feb-25	Feb-26	Feb-27	Feb-28
Site Clearance					
Excavation – Rough stone/Overburden					
I Year Production – Cum – 55,692Rough Stone and 17,316 Gravel					
II Year Production – Cum – 27,083Rough Stone					
III Year Production – Cum – 27,083Rough Stone					
IV Year Production - Cum – 23,373Rough Stone					
V Year Production – Cum – 31,206Rough 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 48 m below ground level. The water table is below 88 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 and **10 Litre** diesel per hour for excavation of Top soil needed.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru. C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli village, Hosur tehsil, Krishnagiri district</i>	

2.13 PROJECT COST

S. No.	Description	Cost (Rs.)
1	Fixed cost	Rs.43890000/-
2	Operational cost	Rs.25,00,000/-
3	EMP cost	Rs.169,70,946

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, Vilvam Vaagai, Naval etc will be planted along the lease boundary and avenues as well as over non-active dumps at a rate of 700 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, Vilvam Vaagai, Eachai, Naval, Mantharai, Magizha Maram, Vila maram, Poo Marudhu, Panai Maram, Marudha Maram, Thandri, Sengondrai, Poovarasu, Therthag kottai , Pungam	80%	1500
Total		1500

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

3 Description of the Environment

3.1 GENERAL:

The method of mining for extracting rough stone quarry and gravel 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/ F. No. 9570/ ToR-1348/2022 Dated: 10.02.2023. The baseline monitoring is carried out in January to March 2023 and the

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru. C Nithin reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

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 January to March 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 Lead in PM	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, Potassium, Salinity, Total nitrogen, Total Coliforms, Fecal Coliforms	5 locations	Once in 5 locations

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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.No. 381(Part-1) - 3.00.0 Ha, Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu State	Field Study

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy	<i>Draft EIA Report</i>
Project Proponent	Thiru. C Nithin reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

2.	Latitude & Longitude	Latitude : 12°37'54.3668"N to 12°37'53.1120"N Longitude : 77°48'40.8039"E to 77°48'32.8686"E	Topo Sheet																		
3.	Topo Sheet No.	57 H/14	Survey of India Toposheet																		
4.	Mine Lease Area	3.00.0 Ha	--																		
Demography in the study area (as per Census 2011)																					
5.	Total Population	2764	Census Survey of India																		
6.	Total Number of Households	605																			
7.	Maximum Temperature (°C)	36	IMD																		
8.	Minimum Temperature (°C)	21																			
9.	Ecological Sensitive Areas - Wetlands, watercourses or other waterbodies, coastal zone, biospheres, mountains, forests	<ul style="list-style-type: none"> ❖ Devaganapalli Lake, 1.71 km, NW ❖ Nagondapalli Lake, 5.08 km, NW ❖ Jona Banda Lake – 6.03 km, NE ❖ Achettapalli Lake, 6.18 km, N ❖ Poonapalli Lake, 7.35 km, NW ❖ Mathigiri lake, 6.23 km, N ❖ Onnalvadi Lake – 8.59 km, NE ❖ Karapalli Lake, 9.62 km, NNE ❖ Ponnaiyar River, 14.9 km, NE 	Google Earth/Field Study																		
10.	Densely Populated area	Hosur - 11.66 Km -N																			
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S. No.</th> <th style="text-align: center;">Places</th> <th style="text-align: center;">Dist. From Project Site</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">Schools & Colleges</td> </tr> <tr> <td style="text-align: center;">1</td> <td>Government Hr.Sec. School, Nagondapalli</td> <td>2.64 km - SW</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Govt higher secondary school, Mathigiri</td> <td>6.77 km -N</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Govt Primary school, Onnalvadi</td> <td>7.86 km - NE</td> </tr> <tr> <td colspan="3" style="text-align: center;">Hospitals</td> </tr> </tbody> </table>	S. No.	Places	Dist. From Project Site	Schools & Colleges			1	Government Hr.Sec. School, Nagondapalli	2.64 km - SW	2	Govt higher secondary school, Mathigiri	6.77 km -N	3	Govt Primary school, Onnalvadi	7.86 km - NE	Hospitals			Google Earth/Field Study
S. No.	Places	Dist. From Project Site																			
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1	Government Hr.Sec. School, Nagondapalli	2.64 km - SW																			
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3	Govt Primary school, Onnalvadi	7.86 km - NE																			
Hospitals																					

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy	<i>Draft EIA Report</i>
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		1	Govt Primary Health care Hospital	3.42 Km- NW	
		2	Govt Primary health Centre	5.58 Km - SE	

3.1.7 Site Connectivity:

The site is connected to (SH17A Hosur-Denkanikottai road) – 2.7 km, W



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.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy</i>	<i>Draft EIA Report</i>
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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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.

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy	<i>Draft EIA Report</i>
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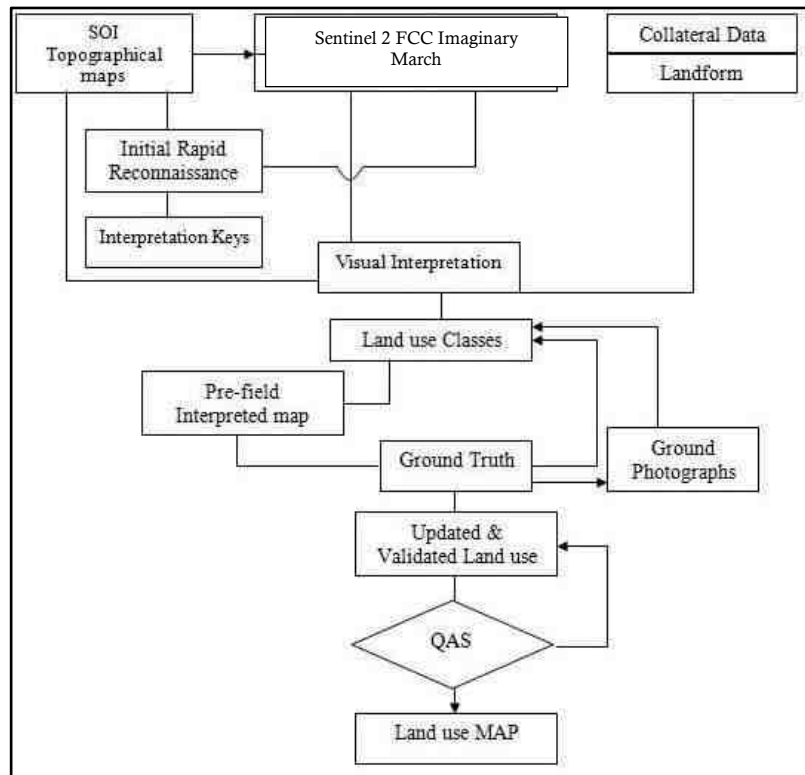


Figure 3.2 Flow Chart showing Methodology of Land use mapping

3.2.3 Satellite Data

Sentinel 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 on 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 Sentinel 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,

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy</i>	<i>Draft EIA Report</i>
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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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 sentinel satellite image and SOI topo sheets of 58J/10, 58J/11, 58J/14, 58J/15 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 -I being the broad classification about the land covers that is Built-up land, agriculture land, waste land, wet lands, and water bodies. These are followed by level –II where built-up land is divided into towns/cities as well 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

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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.

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.

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<i>Project Proponent</i>	<i>Thiru. C Nithin reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

3.2.7.5 Crops

Human 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.

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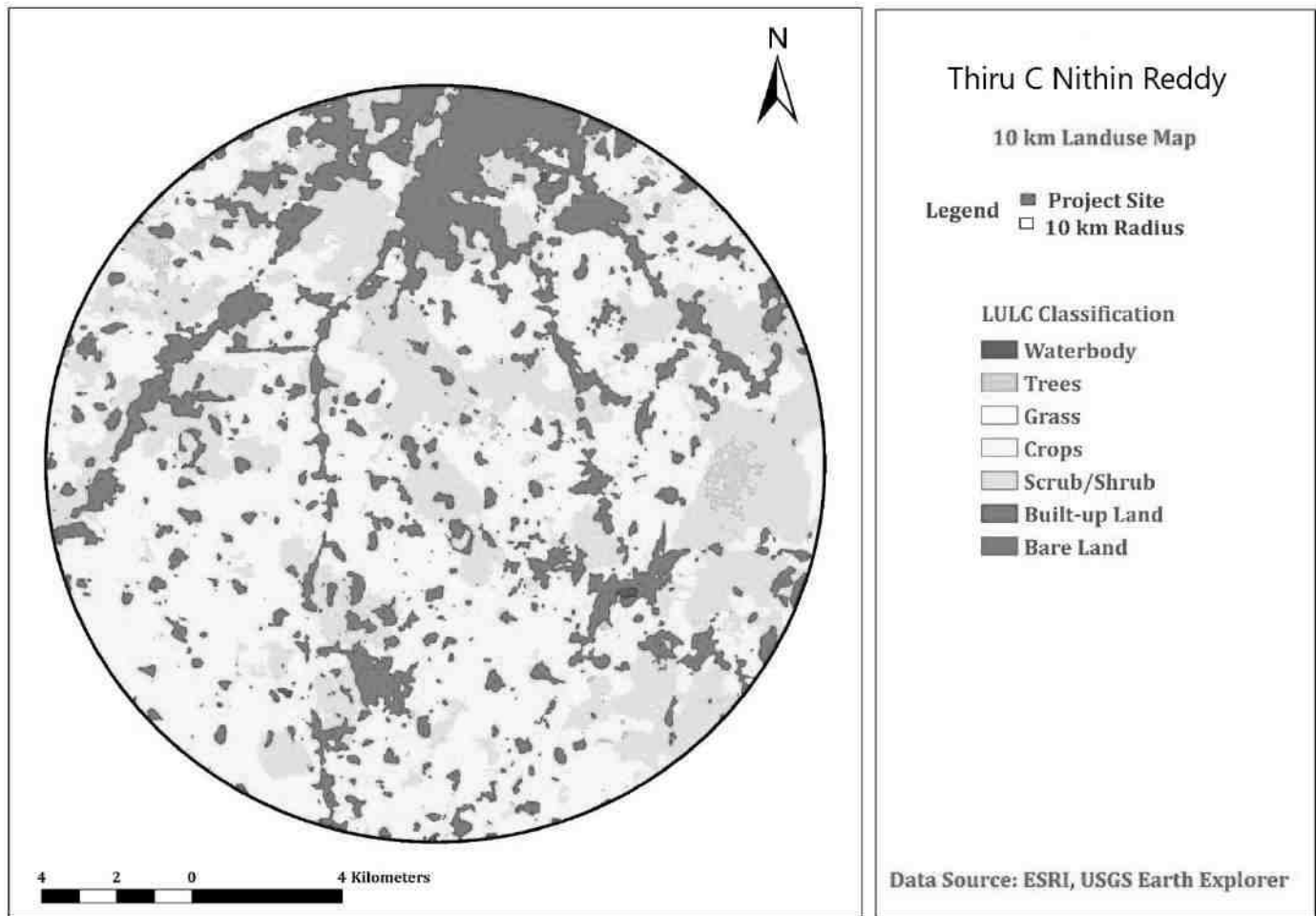


Figure 3.3 Land use classes around 10 km radius from the project site

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
1	Water Body	0.33
2	Trees	3.14
3	Grass	0.69
4	Crops	168.18
5	Scrub/Shrub	80.5
6	Built-up Area	66.85
7	Barren Land	0.16

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3.3 WATER ENVIRONMENT

3.3.1 *Contour & Drainage*

The project site is 882 m AMSL.

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 land forms 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.

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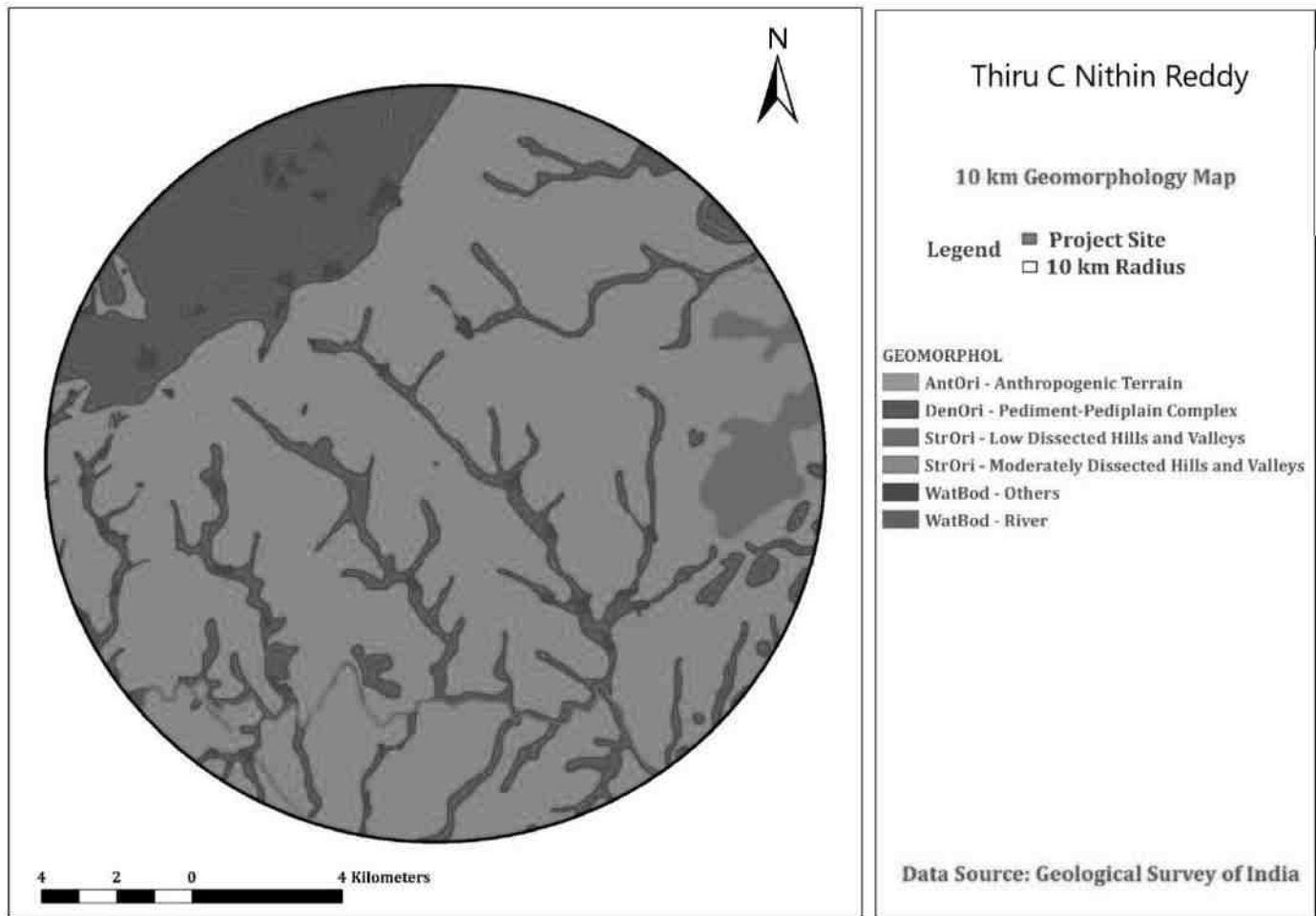


Figure 3.4 Geomorphology within 10km from the project site

3.3.3 Geology:

The geological formations of the district belong mainly to Archaean age along with rock of Proterozoic age. The former is represented 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

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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.

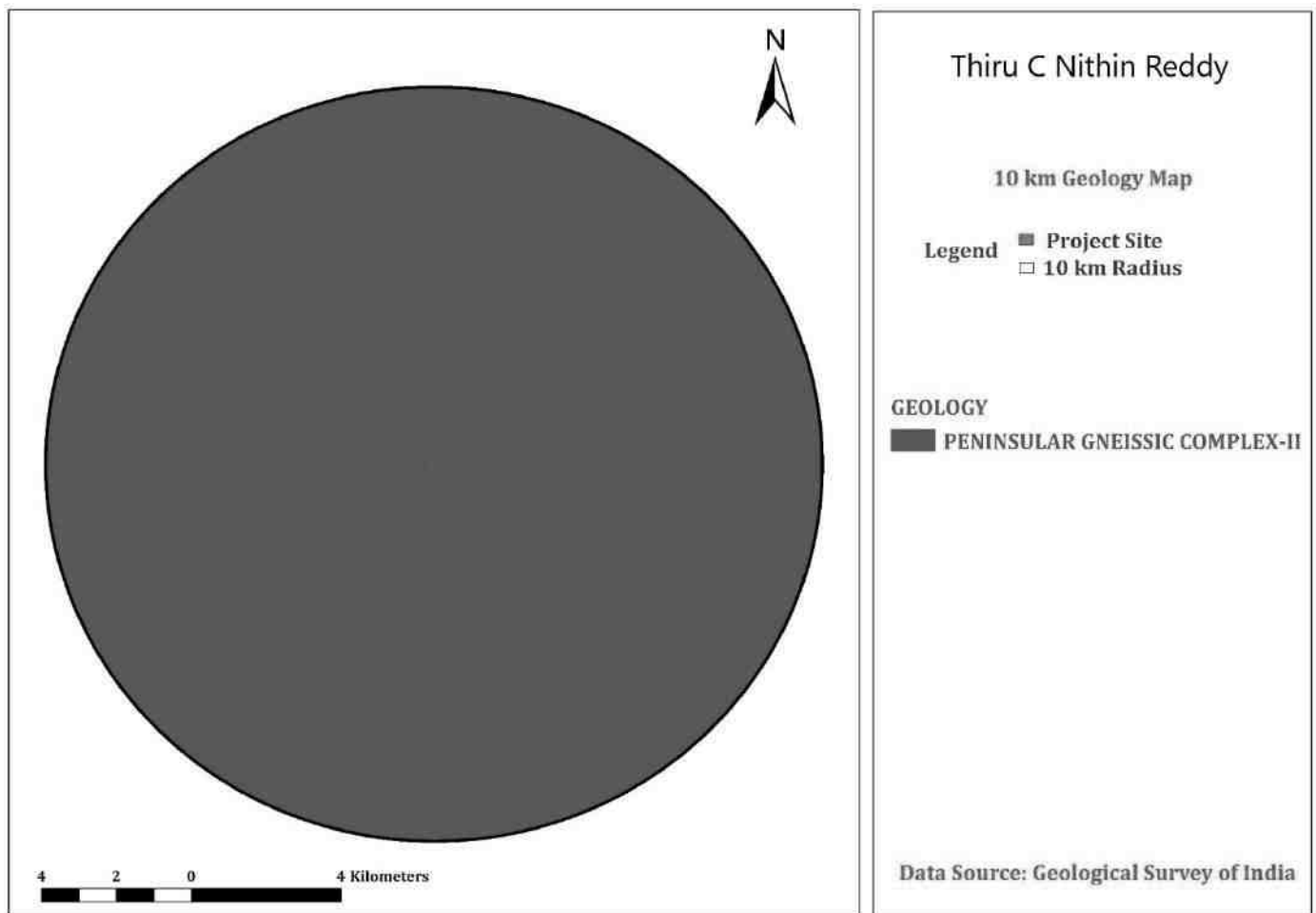


Figure 3.5 Geology within 10km from the project site

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3.3.4 Hydrogeology

Krishnagiri district is underlain 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 m² /day with low to very low permeability values.

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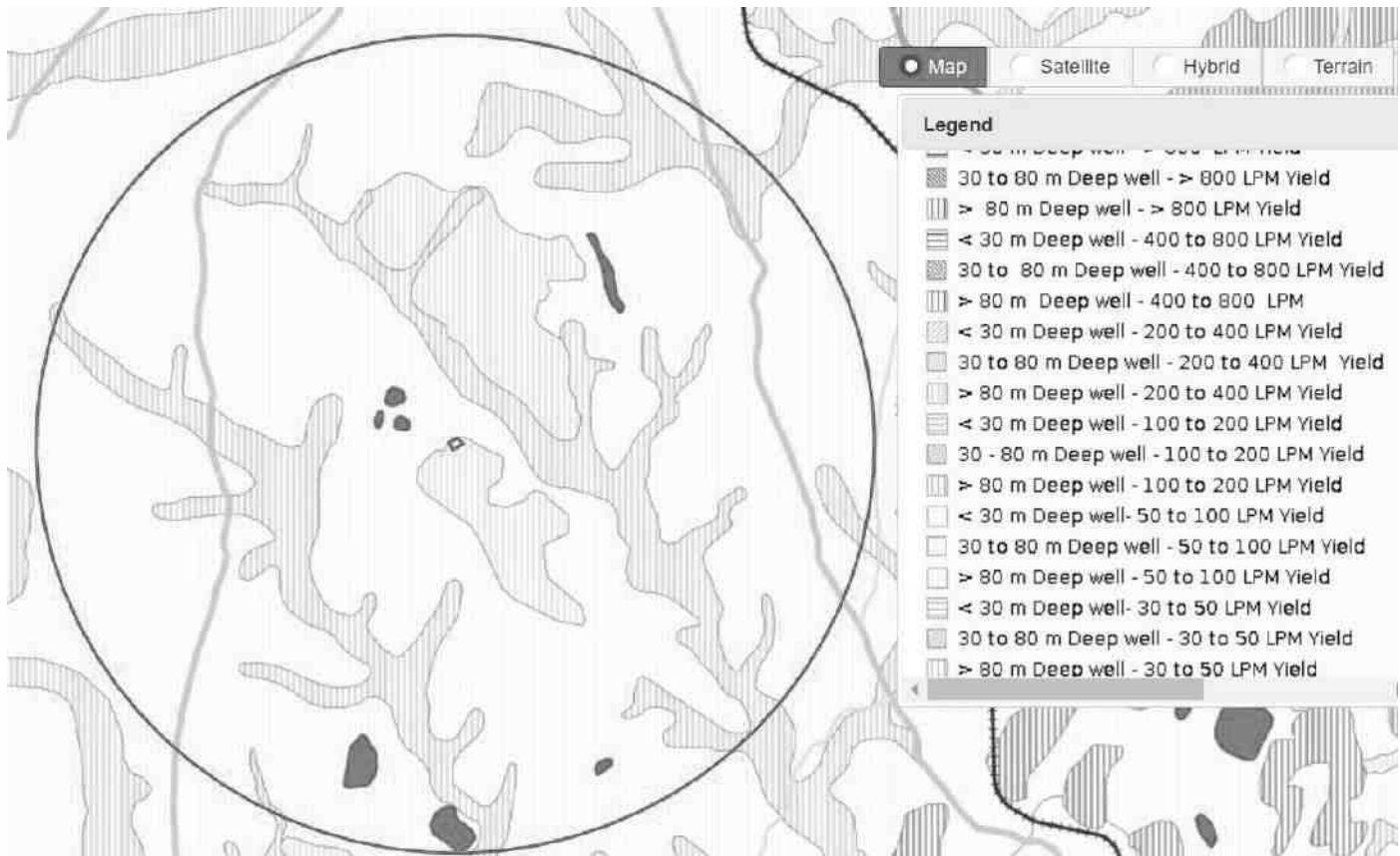


Figure 3.6 Ground water prospects within 5 km radius of the project site

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	January to March 2023
Design Criteria	Based on the Environmental settings in the study area
Monitoring Locations	Project Site -GW 1 Pups Barandur school -GW2 Pattalama Temple - GW 3 Poonapalli Govt Primary school - GW 4 Anjaneya Temple - GW 5
Methodology	Water Samples were collected in 5 Litre fresh cans as per IS 3025 Part I and transported to the laboratory in Iceboxes

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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

Frequency of Monitoring	Once in a season
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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 22 nd Edn.2012-2540-C
6	Total Suspended Solids	IS:3025(P-17)-1984 RA:2012
7	Total Hardness as CaCO ₃	APHA 22 nd Edn.2012-2340-C
8	Calcium as Ca	APHA 22 nd Edn2012.3500 Ca-B
9	Magnesium as Mg	APHA 22 nd Edn.2012-3500 Mg-B
10	Chloride as Cl	IS:3025(P -32)-1988 RA: 2014
11	Sulphate as SO ₄	APHA 22 nd Edn.2012-4500 SO ₄ -E
12	Total Alkalinity as CaCO ₃	APHA 22 nd 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 22 nd 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

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Table 3-6 Ground water sampling results

S. No	Parameters	Units	Project Site – GW 1	Pups Barandur school GW 2	Pattalama Temple GW 3	Poonapalli Govt Primary school GW 4	Anjaneya Temple GW 5
1	pH (at 25°C)	-	7.04	7.82	6.98	7.75	7.28
2	Electrical Conductivity	µS/cm	884	1377	1773	645	1339
3	Colour	Hazen Unit	1	2	3	2	2
4	Turbidity	NTU	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)	BQL (LOQ:1)
5	Total Dissolved Solids	mg/L	505	912	975	355	832
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	275	566	634	236	461
8	Calcium as Ca	mg/L	85	147	159	61.5	108
9	Magnesium as Mg	mg/L	15.2	48.1	57.5	20.1	46.2
10	Chloride as Cl	mg/L	33.3	90	286	60.6	153
11	Sulphate as SO ₄	mg/L	103	303	170	38.6	187
12	Total Alkalinity as CaCO ₃	mg/L	345	311	299	234	261
13	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)
14	Silica as SiO ₂	mg/L	16.3	15.1	20.7	14.4	15.9
15	Potassium as K	mg/L	2.1	6.2	15.2	3.9	8.5
16	Sodium as Na	mg/L	30.1	80.4	221	55.8	115

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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).

pH:

Value observed in the Project Site: 7.04

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: <1

Acceptable and permissible limits: 1 NTU & 5 NTU respectively. The value of turbidity generally indicates the presence of phytoplanktons and other sediments. The value in the project site indicates the water is slightly turbid.

Total Dissolved Solids:

Value observed in the Project Site: 505 mg/L.

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

The TDS is the presence of the 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 top soil is carried away by the water. The value in the project site indicates the water is less turbid.

3.3.6.2 Chemical parameters of water:

The chemical parameters of the drinking water include,

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Calcium:

Value observed in the Project Site: 85 mg/L.

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

Calcium is the 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: 15.2 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 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: 33.3 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 CaCO₃:

Value observed in the project site: 345 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.

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Hardness:

Value observed in the Project Site: 275 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 **Devaganapalli Lake** . The results are summarized below.

Table 3-7 Surface Water Sample Results

S. No	Parameters	Units	Devaganapalli Lake
1	pH (at 25°C)	-	7.03
2	Electrical Conductivity	µS/cm	204
3	Colour	Hazen Unit	25.2
4	Turbidity	NTU	9
5	Total Dissolved Solids	mg/L	122
6	Total Suspended Solids	mg/L	14
7	Total Hardness as CaCO ₃	mg/L	67.3
8	Calcium as Ca	mg/L	21.8
9	Magnesium as Mg	mg/L	3.11
10	Chloride as Cl	mg/L	25.4
11	Sulphate as SO ₄	mg/L	19.3
12	Total Alkalinity as CaCO ₃	mg/L	56.6
13	Iron as Fe	mg/L	1.06
14	Silica as SiO ₂	mg/L	2.28
15	Potassium as K	mg/L	1.2
16	Sodium as Na	mg/L	20.5
17	BOD	mg/L	8.5
18	COD	mg/L	40.3
19	DO	mg/L	5.64

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 the both the water does not fit Class A

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(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.

3.3.7.1 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	:	June 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 rainy season and between December to February winter prevails with very cold and misty.

ii) Temperature

The maximum temperature is around 36°C and minimum temperature is 28°C.

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).

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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: District survey report

Meteorological 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 January to March 2023.

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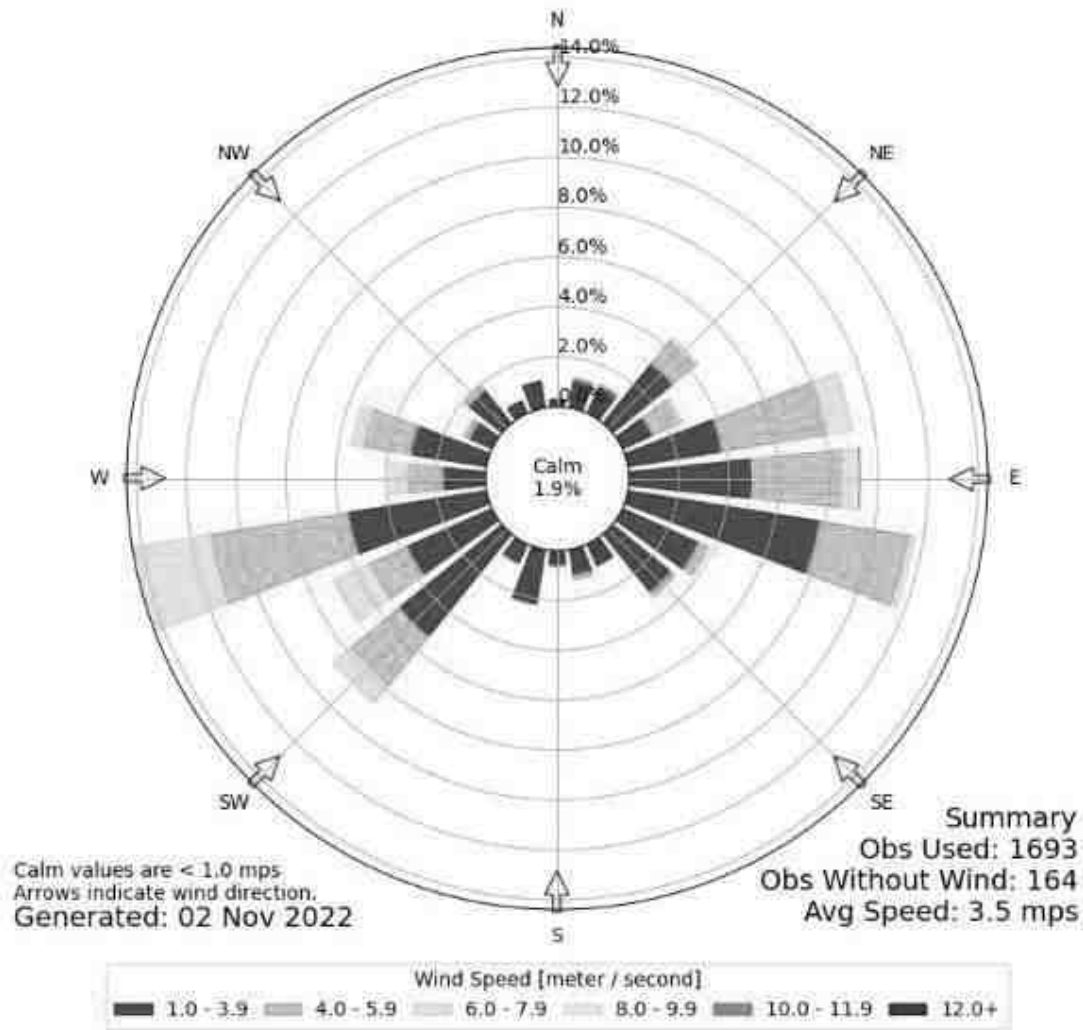


Figure 3.7 Wind rose

3.3.8 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

Environmental Parameters: <i>Ambient Air</i>	
Monitoring Period	January 2023 to March 2023

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Design Criteria	The monitoring stations are selected based on factors like topography/terrain, prevailing meteorological conditions like predominant wind direction (January 2023 to March 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.		
Monitoring Locations	Location & Code	Distance (km)	Direction
	Project Site	--	--
	Pups Barandur school	1.66 Km	Upwind WSW
	Pattalama Temple	2.86 Km	Downwind ENE
	Poonapalli Govt Primary school	7.11 Km	Crosswind NNW
	Anjaneya Temple	6.70 Km	Crosswind SSE
Methodology	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)		
Frequency of Monitoring	2 days in a week, 4 weeks in a month for 3 months in a season.		

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.

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Table 3-9 Ambient Air Quality

Code	Location	PM 10 ($\mu\text{g}/\text{m}^3$)				PM 2.5 ($\mu\text{g}/\text{m}^3$)				SO2 ($\mu\text{g}/\text{m}^3$)				NOx ($\mu\text{g}/\text{m}^3$)			
		Min	Max	Avg	98 percentile	Min	Max	Avg	98 percentile	Min	Max	Avg	98 percentile	Min	Max	Avg	98 percentile
AAQ 1	Project Site	48	59	55	59	20	28	25	28	9	16	13	16	16	29	22	29
AAQ 2	Pups Barandur school	39	53	45	52	15	22	19	22	5	9	7	9	10	19	15	19
AAQ 3	Pattalama Temple	54	66	60	65	25	34	29	33	13	21	16	21	22	37	29	37
AAQ 4	Poonapalli Govt Primary school	54	64	58	63	22	32	26	31	11	20	15	20	21	34	26	33
AAQ 5	Anjaneya Temple	44	56	51	56	18	26	22	26	6	12	9	12	13	25	18	25
NAAQ Standards - Residential Area		100 ($\mu\text{g}/\text{m}^3$)				60($\mu\text{g}/\text{m}^3$)				80 ($\mu\text{g}/\text{m}^3$)				80 ($\mu\text{g}/\text{m}^3$)			

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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 (66($\mu\text{g}/\text{m}^3$), PM 2.5 (34 ($\mu\text{g}/\text{m}^3$), SOx (20($\mu\text{g}/\text{m}^3$), NOx (37($\mu\text{g}/\text{m}^3$) is observed in different places.

Inference:

The monitoring results for PM10, PM2.5, Sox, NOx was found to be high in Pattalama Temple which is due to the movement of vehicles .

The observed values are all well within the Standards prescribed by NAAQ.

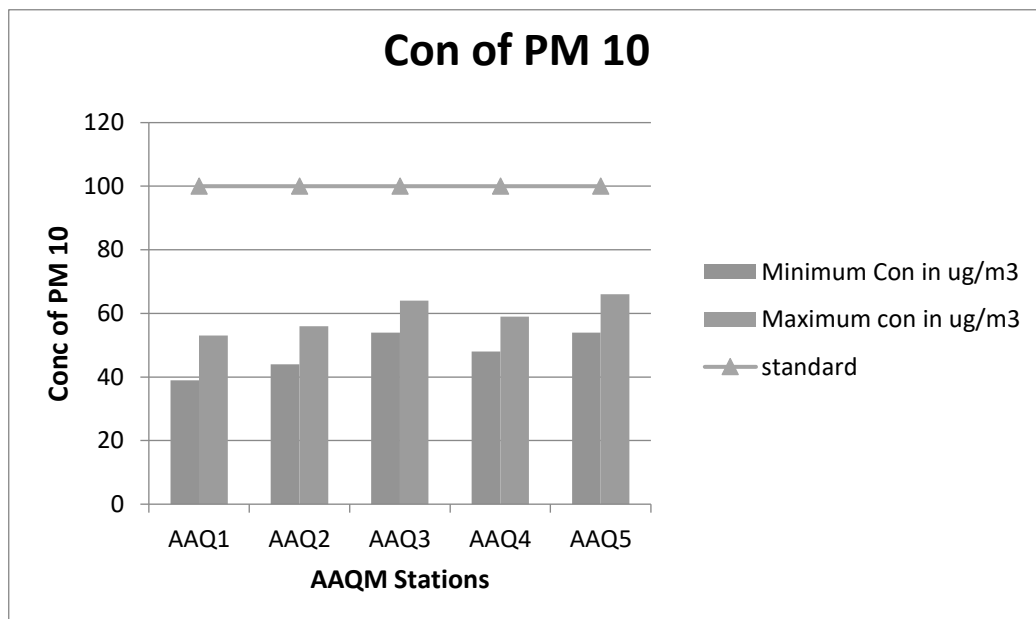


Figure 3.8 Concentration of PM10 ($\mu\text{g}/\text{m}^3$) in Study Area

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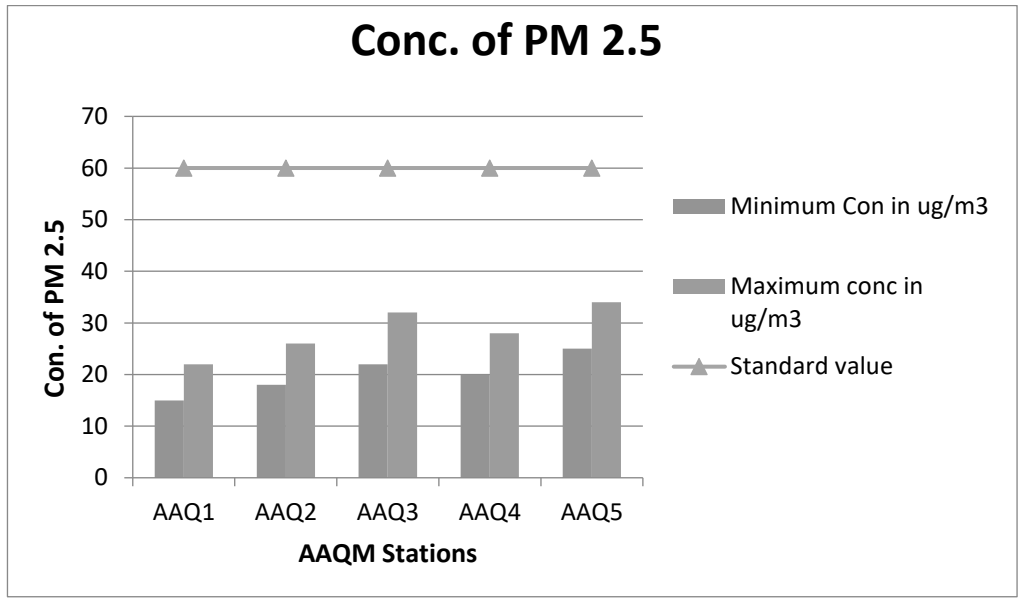


Figure 3.9 Concentration of PM_{2.5} (µg/m³) in Study Area

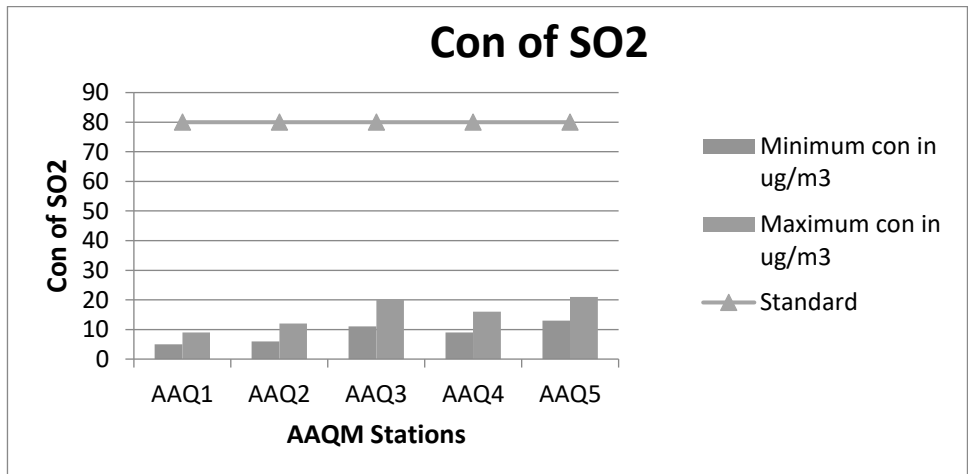


Figure 3.10 Concentration of SO_x (µg/m³) in Study Area

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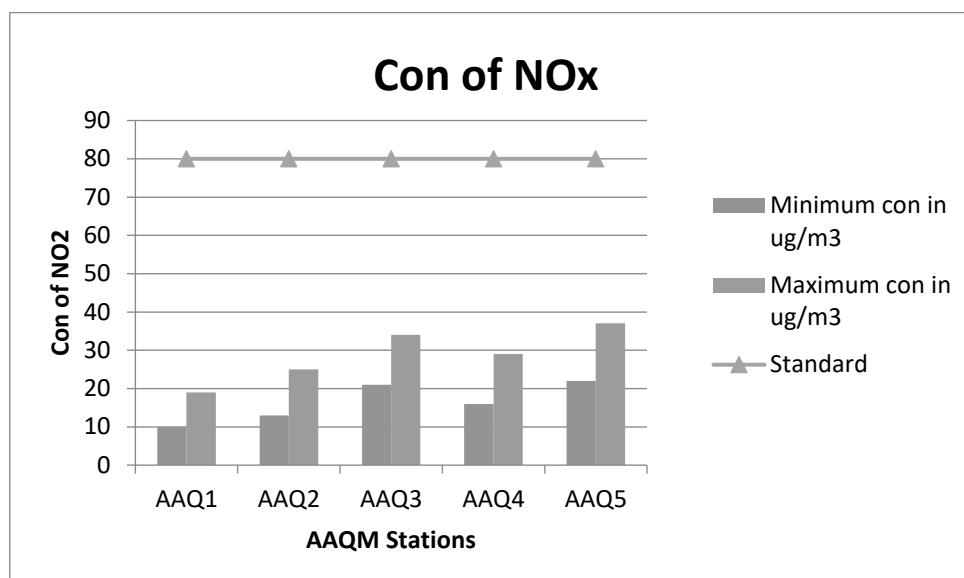


Figure 3.11 Concentration of NOx ($\mu\text{g}/\text{m}^3$) in Study Area

3.5 NOISE ENVIRONMENT:

Table 3-10 Noise Analysis

Environmental Parameters: <i>Noise Analysis</i>	
Monitoring Period	January to March 2023
Design Criteria	Based on the Sensitivity of the area
Monitoring Locations	Project Site – N 1 Pups Barandur school-N2 Pattalama Temple-N3 Poonapalli Govt Primary school-N4 Anjaneya Temple-N5
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

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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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	56	46	52
Pups Barandur school	60	46	55
Pattalama Temple	65	50	60
Poonapalli Govt Primary school	63	51	58
Anjaneya Temple	53	42	49

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	44	37	41
Pups Barandur school	44	36	40
Pattalama Temple	49	41	46
Poonapalli Govt Primary school	48	39	44
Anjaneya Temple	44	36	39

Observation:

The maximum Day noise and Night noise were found to be 65 dB(A) and 49 dB(A) respectively in Pattalama temple. The minimum Day Noise and Night noise were 42 dB (A) and 36 dB(A) respectively which was observed in Anjaneya Temple. The observed values are all well within the Standards prescribed by CPCB.

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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.

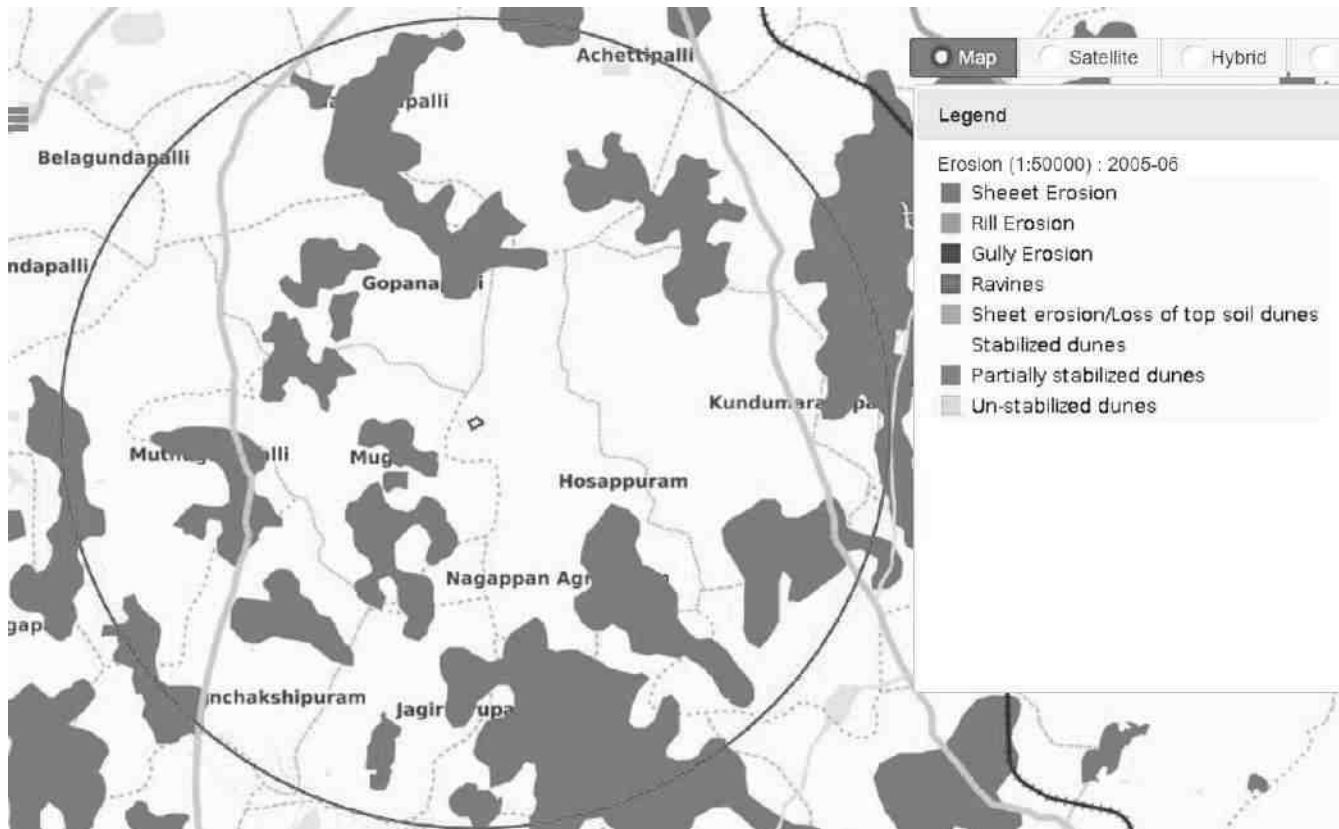


Figure 3.12 Soil Erosion pattern within 5 km radius of the project site

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.

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Table 3-13 Soil Quality Analysis

Environmental Parameters: Soil Quality Analysis	
Monitoring Period	January to March 2023
Design Criteria	Based on the environmental settings of the study area
Monitoring Locations	Project Site – SQ 1 Pups Barandur school -SQ 2 Pattalama Temple –SQ 3 Poonapalli Govt Primary school - SQ 4 Anjaneya Temple - 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	Project Site SQ 1	Pups Barandur school SQ 2	Pattalama Temple SQ 3	Poonapalli Govt Primary school SQ 4	Anjaneya Temple -SQ5
pH (at 25°C)	-	8.32	7.79	4.7	7.75	6.49
Specific Electrical Conductivity	mS/cm	0.13	0.32	0.27	0.52	0.09
Water Holding Capacity	ml/l	8.9	10.1	10.5	7.9	9.5
Chloride	g/cm ³	110	51.3	68.9	107	185
Soluble Calcium	mg/kg	81.2	86.8	97.6	98.9	98.1
Soluble Sodium	mg/kg	959	857	517	841	1449
Soluble Potassium	mg/kg	1064	977	343	862	1654
Organic matter	%	1.25	0.89	0.59	0.75	0.89
Soluble Magnesium	mg/kg	15.4	23.6	29.2	21.5	55.6

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Total Soluble Sulphates	%	145	168	91.5	141	245
Cation Exchange Capacity	mg/kg	11.5	12.9	10.4	11.2	14.2
Total Nitrogen	%	0.405	0.385	0.352	0.41	0.415
Bulk Density	meq/100g	1.34	1.05	1.18	1.24	1.13
Phosphorous	meq/kg	685	486	385	628	542
Sand	%	62	54	57	52	58
Clay	mg/kg	9	7	6	3	8
Silt	mg/kg	29	39	37	45	34
SAR	mg/kg	27.3	22.9	12.9	21.4	33.3
Silicon	%	0.98	0.85	0.95	0.92	0.91

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 1.05 to 1.34 meq/100g which indicates favorable physical condition for plant growth. The water holding capacity was found in the range of 7.9 ml/1 to 10.50 ml/1.

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 4.7 to 8.32, 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 0.59 to 1.25 %, 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 2 km 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

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- 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, random field survey was done. Field survey was conducted around 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.

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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 quadrates 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 part 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

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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	7.07	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

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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					

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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	Stachytarpeaurticifolia	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

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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

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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 type 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	$H = \sum[(p_i) * \ln(p_i)]$ 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

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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	Elilapalai	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
Stachytarpheurticifolia	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	Unnichi	8	0.045977	-3.07961	-0.14159
Parthenium hysterophorous	Vishapoond	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

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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

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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: The important crops of this district are Paddy, Maize, Ragi, Banana, Sugarcane, Cotton, Tamarind, Coconut, Mango, Groundnut, Vegetables and Flowers also grown 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), *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

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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 striped 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 striped palm squirrel	IV	Least Concern
Herestes edwardsii	Common Mongoose	IV	Not listed

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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
Phragmaticola 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

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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 10 km radius from the project site.

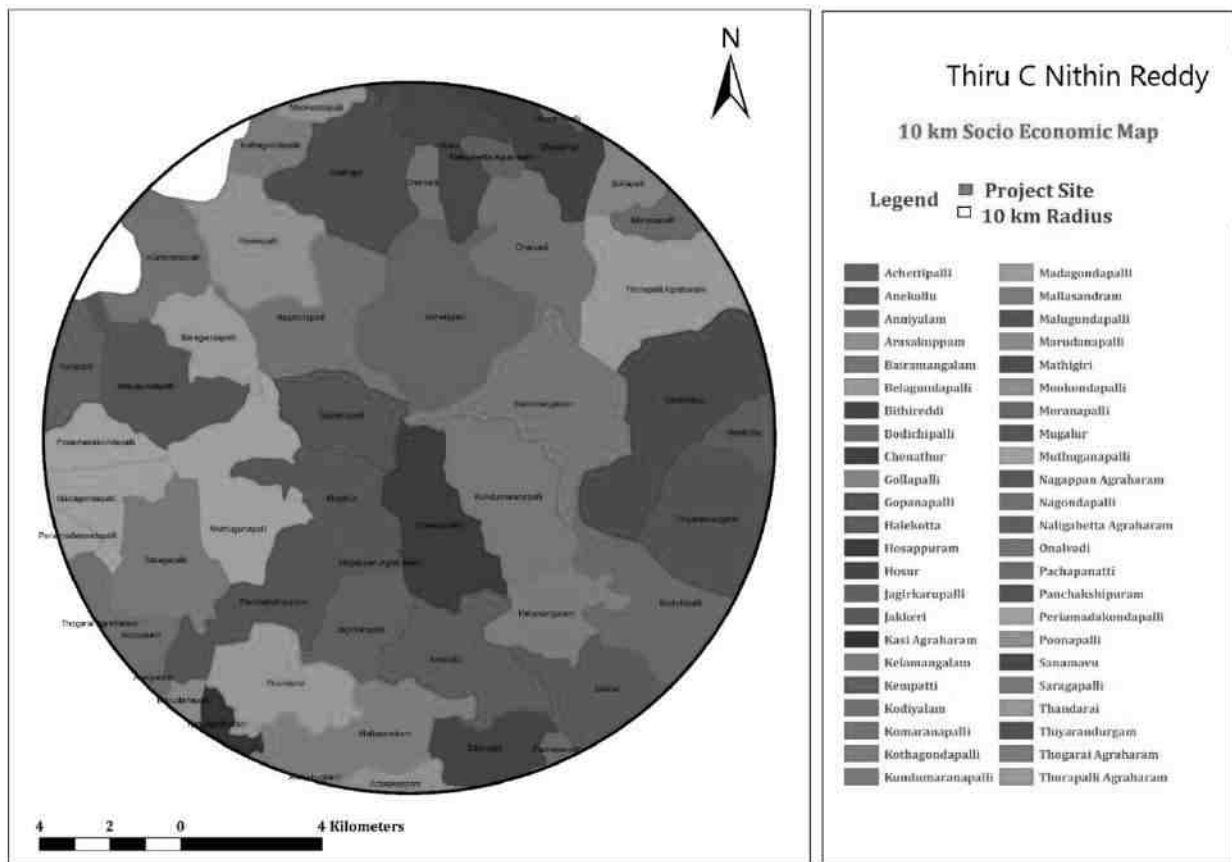


Figure 3.13 Socio Economic map surrounding the project site.

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

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Table 3-21: Demography Survey Study

Source: Census of India, 2011

Villages	Household	Population	Sex Ratio		Literacy Rate		SC	ST
			Male	Female	Male	Female		
Kodiyalam	211	829	405	424	282	225	146	0
Poonapalli	738	3061	1542	1519	1111	889	544	9
Chenathur	3458	15826	8925	6901	6809	4381	1154	110
Moranapalli	2174	9160	4855	4305	3403	2439	1503	13
Onalvadi	1607	6656	3411	3245	2475	1968	1360	0
Achettipalli	697	3066	1562	1504	1056	805	910	0
Nagondapalli	674	2929	1513	1416	1110	808	1096	0
Gopanapalli	342	1388	716	672	478	358	276	2
Sanamavu	925	4248	2182	2066	1487	1062	659	183
Halekotta	707	2990	1535	1455	1071	760	209	83
Mugalur	609	2593	1352	1241	862	609	1023	0
Hosur (M)	29255	116821	59351	57470	47353	42240	9438	200
Mathigiri (TP)	5627	23129	11725	11404	9165	8192	5128	33
Mookondapalli (CT)	10624	39245	20488	18757	16302	13841	3158	66
Gollapalli	121	534	291	243	158	83	0	0
Komaranapalli	511	2174	1106	1068	719	558	577	0
Belagundapalli	1018	4092	2073	2019	1575	1249	686	0
Anniyalam	614	2558	1308	1250	890	671	823	0
Thandarai	605	2664	1349	1315	784	605	363	4
Kundumaranapalli	863	3867	1972	1895	1342	901	1157	0
Bairamangalam	1207	4932	2569	2363	1940	1436	1213	11
Jakkeri	914	3957	1989	1968	1337	1010	844	127
Anekollu	628	2858	1471	1387	861	621	136	1
Mallasandram	907	4062	2130	1932	1349	923	343	26
Thogarai Agraharam	114	484	253	231	183	120	179	0

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Kempatti	535	2062	1038	1024	667	503	568	0
Arasakuppam	988	4196	2148	2048	1378	1027	313	87

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
		SH-17A	-	SH-17A

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1	Cars	453	1	453
2	Buses	247	3	741
3	Trucks	159	3	477
4	Two wheelers	428	0.5	214
5	Three wheelers	186	1.5	279
Total		1473	-	2164

Table 3-23: Existing Traffic Scenario and LOS

Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
SH17A	2164/24=90	237	0.38	B

Note: The existing level may be "Very Good" for SH17A=237.

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

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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

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4.2 LAND ENVIRONMENT:

Aspect	Impact	Mitigation Measures		
<i>Mining of rough stone and Gravel</i>	<p>The proposed 3.00.0 Ha mine located in Gopanapalli Village having 565895 m³ of Rough stone. 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 10 years, mining lease area will be converted into ultimate pit.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Ultimate Pit Dimensions</td> </tr> <tr> <td style="text-align: center;">217.0m(L) X 109.0m(W) X 48.0m</td> </tr> </table> <p>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.</p> <p>Impact on soil of the study area will be minimal as there are no wastewater generated, heavy metal infusion, stack emissions.</p> <p>Impact due to transformation of terrain characteristics over the large area results in soil degradation.</p>	Ultimate Pit Dimensions	217.0m(L) X 109.0m(W) X 48.0m	<p>The proposed project site is not prone to any kind of soil erosion (Source: Bhuvan).</p> <p>In addition, garland drainage of 1m x 1m will be provided to avoid storm water run-off.</p> <p>It is proposed to plant 1500 No's of local tree species (Neem, Vilvam Vaagai, Pungam, Magizha maram, Eachai, etc.,) along the roads, outer periphery of the mining area which enhances the binding property of the soil.</p> <p>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.</p> <p>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.</p>
Ultimate Pit Dimensions				
217.0m(L) X 109.0m(W) X 48.0m				

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	<p>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.</p>	<p>The proposed mining activity is carried out in Plain terrain.</p> <p>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.</p> <p>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.</p>
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4.3 WATER ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	<p>The mining in the area may cause ground water contamination due to intersection of the water table and mine runoff.</p> <p>The ground water depletion may occur due to mining activity</p> <p>Chemicals consisting of nitrate used for blasting may pollute the surface run off.</p> <p>Improper management of Domestic wastewater in the Mine lease may create unhygienic conditions in the site thereby causing health impacts to the labours.</p>	<p>The water table will not be intersected during mining, as the ultimate depth is limited upto 48 m (below ground level), whereas the ground water table is at 88 m 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.</p> <p>The ground water table is at a depth of 88 m BGL, the mining operation will not affect the aquifer. The ultimate pit at the end of the mining operation will be used for rain water 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.</p> <p>Further, the run-off water will be stored in sumps and after proper treatment; water will be used in the mining operation for dust suppression.</p> <p>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.</p>

4.4 AIR ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading,</i>	<i>Impacts during Operation Phase</i>	<p><i>Mitigation Measures during Operation Phase</i></p> <p>It is proposed to plant 1500 Nos of local species along the haul roads, outer periphery within the</p>

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<i>Transportation of the excavated mineral.</i>	<p>During mining operation, fugitive dust and other air pollutants like particulate matter (PM10 & PM 2.5) will be generated.</p> <p>The main source of pollutants arises due to drilling and blasting. 10 Nos of Tipper will be used for loading and unloading, 4 Nos of Excavator (0.90 m³ bucket capacity, and 4 Nos Jack Hammer will be used for excavation of the mineral which contributes to the generation of fugitive dust. In addition, blasting will be done using explosives leading to the generation of dust.</p> <p><u>Effect on Human</u></p> <ul style="list-style-type: none"> • 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. <p><u>Effect on Plants</u></p> <ul style="list-style-type: none"> • Stomatal index may be minimized due to dust 	<p>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.</p> <p>Planning transportation routes of the mined out mineral, so as to reach the nearest paved roads (an approach road) by shortest route connecting to SH 17A.</p> <p>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.</p> <p>The trucks will be covered by tarpaulin.</p> <p>Overloading will be avoided.</p> <p>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.</p> <p>0.5 KLD of water will be proposed for sprinkling on unpaved roads to avoid dust generation during transportation.</p>
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	deposit on leaf.	
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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 – 0.90 Cum Bucket Capacity (with Rock Breaker Attachment)
2. Jack Hammer 32 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 January to March

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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.

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Predicted maximum ground level concentrations considering micro meteorological data of June to August 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		

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4.5 NOISE ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	<p>Usage of Equipments (Excavator, Tipper, Jack Hammer), Machinery and trucks used for transportation will generate noise.</p> <p>Noise from the machinery can cause hypertension, high stress level, hearing loss, sleep disturbance etc due to prolonged exposure.</p> <p>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.</p>	<ul style="list-style-type: none"> • 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. <p>The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments.</p> <ul style="list-style-type: none"> • It is proposed to plant 1500 Nos. of local 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. SH 17A and a District Road to avoid traffic congestion. • Health check-up camps will be organized once in six month.

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		<ul style="list-style-type: none"> • 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.
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4.6 BIOLOGICAL ENVIRONMENT:

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.	safety distance will be provided all along the boundary of the mine lease area and safety. Around 0.62.0 Ha of land is utilized for greenbelt development (1500 Nos – 10 years). This will attract avifauna thus enhancing the existing ecological environment.

4.7 SOCIO ECONOMIC ENVIRONMENT:

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 poromboke land of Thiru C Nithin Reddy 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 Goolisandram village which is 0.37 km, N from site

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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 Lakhs will be allocated. Provision of basic amenities such as safe drinking water, Hygienic toilet facilities, furniture's, Greenbelt development and Environmental awareness books in library, Solar lights to Govt Middle School, Gopanahalli.

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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 Labors	Labors will be checked for health condition before employing them in mining activity	All the labors will be checked and screened for health before employing them. After employing them, periodical medical checkups will be held once in every six months.

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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 work 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 Mining Plan was approved by The Assistant Director , Geology & Mining, Krishnagiri District prior to submission of the Form-1 and PFR. ToR issued by the SEIAA-TN vide Letter No. SEIAA-TN/ F. No. 9570/ ToR-1348/2022 Dated: 10.02.2023. 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 semi mechanized Involving drilling and blasting are preferred. Benefits: Material is hard so to make it loose and to bring it to appropriate size.

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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 Goolisandram 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 Goolisandram village which is 0.37 km, NNW from site.

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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, 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 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	Project Site, Pups Barandur school, Pattalama Temple Poonapalli Govt Primary school Anjaneya Temple

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Noise	5 locations	24 hourly Once in 5 locations	Project Site, Pups Barandur school, Pattalama Temple Poonapalli Govt Primary school Anjaneya Temple
Water (Ground water) <ul style="list-style-type: none"> • 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	Project Site, Pups Barandur school, Pattalama Temple Poonapalli Govt Primary school Anjaneya Temple
Water (surface water) <ul style="list-style-type: none"> • pH • Temperature • Turbidity • Magnesium • Hardness • Total Alkalinity • Chloride 	Sample from nearby lakes/river	One time Sampling	Devaganapalli river

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<ul style="list-style-type: none"> • Sulphate • Fluoride • Nitrate • Sodium • Potassium • Salinity • Total nitrogen • Total Coliforms • Fecal Coliforms 			
Soil (Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	5 locations	Once in 5 locations	Project Site, Pups Barandur school Pattalama Temple Poonapalli Government Primary School Anjaneya Temple
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

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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

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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 – Nil

Proposed Quarries – Thiru.S.Raghu -1.30.0 Ha, M/s. Natural stone-3.00.0 Ha, Thiru.C Nithin Reddy-3.00.0 Ha, Thiru. Sri krish-3.00.0 Ha, Thiru.Vijaya kumar-2.00.0Ha, Thiru. Dhivakar-1.50.0 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, damages the 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.

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7.1.3 Identification of Hazard

7.1.3.1 Blasting Pattern:

The quarrying operation will be carried out 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:

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% = 1.05MT / hole
10	Charge per hole	140 gms of 25mm dia cartridge

a. Types of explosives to be used:

Slurry Class 3 explosives, type of nitro compound 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. Detonators of Class 3 and Safety fuse of Class 6 are used.

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

The quarry is situated more than 1.0 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 = 30-32mm
Depth = 1.2 to 1.5 m

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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 0.90 Cum Bucket capacity , Jack Hammers (30-32 mm Dia) of 4 Nos.
- Loading Equipment – Excavator of 0.9 Cum Bucket Capacity
- Transportation (includes within the mine and mine to destination) – Tipper 10 No 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:

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- 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 (18 Nos.) and regular inspection for their use;
- In case of eventuality, first aid will be given by the senior safety officer 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 willfully do anything likely to endanger life or limb in the mine, or negligently or willfully 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 footwear and safety helmets;
- Cleaning of mine faces will be regularly done;
- Handling of explosives, charging and blasting will be carried out by highly skilled laborers 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 laborers periodically.

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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 centre 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:

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- 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.

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- 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 a patta land. There is no displacement of the population within the project area and adjacent nearby area and hence Rehabilitation & Resettlement is not applicable.

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<i>Project Proponent</i>	<i>Thiru.C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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 650 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:

Construction of Infrastructure, additional class room, Environmental books for library (in Tamil language), Greenbelt facilities and basic amenities such as safe drinking water, Hygienic Toilets facilities, furniture to Panchayat Union Middle School, H.Settipalli.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru.C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

8.3 PROJECT COST / INVESTMENT DETAILS

Fixed cost	Rs.1,31,90,000/-
Operational cost	Rs.30,00,000/-
EMP cost	Rs.169,70,946/-

Total Project Cost: Rs. 161,90,000/- (One hundred and sixty one Lakhs Ninety Thousand Only)

	Mitigation Measure	Provision for Implementation	Capital	Recurring
Air Environment	Compaction, gradation and drainage on both sides for Haulage Road	Rental Dozer & drainage construction on haul road @ Rs. 10,000/- per hectare; and yearly maintenance @ Rs. 10,000/- per hectare	13000	13000
	Fixed Water Sprinkling Arrangements + Water sprinkling by own water tankers	Fixed Sprinkler Installation and New Water Tanker Cost for Capital; and Water Sprinkling (thrice a day) Cost for recurring	810000	52000
	Air Quality will be regularly monitored as per norms within ML area & Ambient Area	Yearly Compliance as per CPCB norms	0	52000
	Muffle blasting – To control fly rocks during blasting	Blasting face will be covered with sand bags / steel mesh / old tyres / used conveyor belts	0	5500
	Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit	Dust extractor @ Rs. 25,000/- per unit deployed as capital & @ Rs. 2500 per unit recurring cost for maintenance	53000	5600
	No overloading of trucks/tippers/tractors	Manual Monitoring through Security guard	0	5200
	Stone carrying trucks will be covered by tarpaulin	Monitoring if trucks will be covered by tarpaulin	0	13000
	Enforcing speed limits of 20 km/hr within ML area	Installation of Speed Governors @ Rs. 5000/- per Tipper/Dumper deployed	5400	0
	Regular monitoring of exhaust fumes as per RTO norms	Monitoring of Exhaust Fumes by Manual Labour	0	5200

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy	Draft EIA Report
Project Proponent	Thiru.C Nithin Reddy	
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	Regular sweeping and maintenance of approach roads for at least about 200 m from ML Area	Provision for 2 labours @ Rs.10,000/labour (Contractual) per Hectare	0	22000
	Installing wheel wash system near gate of quarry	Installation + Maintenance + Supervision	52000	23000
Noise Environment	Source of noise will be during operation of transportation vehicles, HEMM for this proper maintenance will be done at regular intervals.	Provision made in Operating Cost	0	0
	Oiling & greasing of Transport vehicles and HEMM at regular interval will be done	Provision made in Operating Cost	0	0
	Adequate silencers will be provided in all the diesel engines of vehicles.	Provision made in Operating Cost	0	0
	It will be ensured that all transportation vehicles carry a fitness certificate.	Provision made in Operating Cost	0	0
	Safety tools and implements that are required will be kept adequately near blasting site at the time of charging.	Provision made in OHS part	0	0
	Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Provision made in Operating Cost	0	0
	Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.	Blowing Whistle by Mining Mate / Blaster / Compentent Person	0	0
	Provision for Portable blaster shed	Installation of Portable blasting shelter	52000	2300
	NONEL Blasting will be practiced to control Ground vibration and fly rocks	Rs. 30/- per 6 Tonnes of Blasted Material	0	53000
	Water	Water management	Provision for garland drain @ Rs. 10,000/- per Hectare with maintenance of Rs. 5,000/- per annum	13000	5300
Was	Waste management (Spent Oil, Grease etc.,)	Provision for domestic waste collection and	28000	23000

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy	Draft EIA Report
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		disposal through authorized agency		
		Installation of dust bins	5400	2300
	Bio toilets will be made available outside mine lease on the land of owner itself	Provision made in Operating Cost	0	0
Implementation of EC, Mining Plan & DGMS Condition	Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN	Fixed Display Board at the Quarry Entrance as permanent structure mentioning Environmental Conditions	13000	1300
	Workers will be provided with Personal Protective Equipment's	Provision of PPE @ Rs. 4000/- per employee with recurring based on wear and tear (say, @ Rs. 1000/- per employee)	43000	13000
	Health check up for workers will be provisioned	IME & PME Health check up @ Rs. 1000/- per employee	0	13000
	First aid facility will be provided	Provision of 2 Kits per Hectare @ Rs. 2000/-	0	4300
	Mine will have safety precaution signages, boards.	Provision for signages and boards made	13000	2300
	Barbed Wire Fencing to quarry area will be provisioned.	Per Hectare fencing Cost @ Rs. 2,00,000/- with Maintenance of Rs 10,000/- per annum	230000	13000
	No parking will be provided on the transport routes. Separate provision on the south side of the hill will be made for vehicles /HEMMs. Flaggers will be deployed for traffic management	Parking area with shelter and flags @ Rs. 50,000/- per hectare project and Rs. 10,000/- as maintenance cost	53000	13000
	Installation of CCTV cameras in the mines and mine entrance	Camera 4 Nos, DVR, Monitor with internet facility	33000	5300
	Implementation as per Mining Plan and ensure safe quarry working	Mines Manager (1 st Class / 2 nd Class / Mine Foreman) under regulation 34 / 34 (6) of MMR, 1961 and Mining Mate under regulation 116 of MMR,1961 @ 40,000/- for Manager & @ 25,000/- for Foreman / Mate	0	790000

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy	Draft EIA Report
Project Proponent	Thiru.C Nithin Reddy	
Project Location	Gopanapalli Village, Hosur Taluk, Krishnagiri District	

Green Belt Development	Green belt development - 500 trees per one hectare (200 Inside Lease Area & 300 Outside Lease Area)	Site clearance, preparation of land, digging of pits / trenches, soil amendments, transplantation of saplings @ 200 per plant (capital) for plantation inside the lease area and @ 30 per plant maintenance (recurring)	56000	8400
		Avenue Plantation @ 300 per plant (capital) for plantation outside the lease area and @ 30 per plant maintenance (recurring)	126000	12600
			1598800	1158600
		Total	2757400	

Year 1	Year 2	Year 3	Year 4	Year 5
2757400	1216530	1277357	1341224	1408286
Year 6	Year 7	Year 8	Year 9	Year 10
2278100	1552635	1630267	1711780	1797369

Total EMP Cost= 169,70,946= 170 (Lakhs)

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru.C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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 7m. The individual bench slope has been proposed to be kept at 60° 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

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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, Thiru. C Nithin Reddy will work in association with M/s. Ecotech Labs Pvt Ltd.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru.C Nithin Reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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 runoff.
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,

Project	Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy	Draft EIA Report
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				<p>norms and guidelines (as applicable) as outlined in the National Building Code of India, Bureau of Indian Standards.</p> <ul style="list-style-type: none"> ✓ 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. Fire fighting 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.	<ul style="list-style-type: none"> • Use of locally available construction materials.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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

Thiru C Nithin Reddy site is a cluster of four mining project. The individual mine lease area is 3.00.0 Ha of Rough Stone Quarry located at S.F.Nos. 381(Part-1) of Gopanapalli Village, Hosur Taluk, Krishnagiri District.

10.2 PROJECT OVERVIEW

Table 10-1: Project Overview

S. No.	Description	Details
1	Project Name	Thiru C Nithin Reddy Rough stone Quarry
2	Proponent	Thiru C Nithin Reddy
3	Mining Lease Area Extent	3.00.0 Ha
4	Location	S.F.No.381(Part-1)
5	Latitude	Latitude : 12°37'54.3668"N to 12°37'53.1120"N
6	Longitude	Longitude : 77°48'40.8039"E to 77°48'32.8686"E
7	Topography	Hilly terrain topography
8	Site Elevation above MSL	882 m from MSL
9	Topo sheet No.	57-H/14
10	Minerals of Mine	Rough Stone Quarry
11	Proposed production of Mine	Proposed Capacity of reserves – Rough stone : I-V years -362270 m ³ VI-X years-203625 m ³
12	Ultimate depth of Mining	48 m below ground level
13	Method of Mining	Open cast mechanized mining
14	Water demand	1.9 KLD
15	Source of water	Water will be supplied through tankers supply
16	Man power	18Nos.
17	Mining Plan Approval	Mining Plan was approved by Deputy Director , Department of Geology and Mining, Krishnagiri District vide letter Roc.No.536/2022/ Mines dated 04.08.2022
18	Precise area communication letter	Precise area communication letter received from the District Collector, Krishnagiri District vide letter Rc. No. 536/2022 Kanimam dated 06.05.2022.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

19	Production details	Geological reserves: 1313455 m ³ of Rough stone Proposed year wise reserves-(I-V years) = 362270 m ³ of Rough stone (VI-X years) =203625 m ³ of Rough stone
20	Boundary Fencing	7.5 m barrier all along the boundary for adjacent patta lands and 10 m safety distance for Govt. Lands. Fencing will be provided.
21	Disposal of overburden	Top soil formation will be removed and transported to the needy end user only after obtaining permission and paying necessary seigniorage fees to the Government.
22	Ground water	The ground water table is reported as 88m BGL in nearby open wells and bore wells of this area. Mining depth taken as 48m . Now, 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 Goolisandram village which is 0.37 Km.

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.

Krishnagiri District is covered with wide range of metamorphic rocks of peninsular gnessic complex. These rock formations occur as massive hillocks all over the district in government lands and patta lands,

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

and extensively weathered formations are overlain by soil / alluvium deposits with an average thickness of 1 to 5mts. Rough stone deposits suitable for the production of Jelly, Cut stones and Pillar Stones are available throughout the Krishnagiri District. Rough stones are widely used in this district as building stones, boulders, cut stones and for the production of Jelly, M.Sand, Crusher Dust. The rock products which are produced not only used in the Krishnagiri District alone but also transported to the neighboring districts. These products enter into the market in different parts of the country.

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.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
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<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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.

<i>Project</i>	<i>Rough stone Quarry- 3.00.0 Ha by Thiru.C Nithin Reddy</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>Thiru. C Nithin reddy</i>	
<i>Project Location</i>	<i>Gopanapalli Village, Hosur Taluk, Krishnagiri District</i>	

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.

ANNEXURE I
Terms of Reference



**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.9570/SEAC/ToR-1348/2022 Dated:10.02.2023.

To

Thiru C Nithin Reddy
S/o Chandra Reddy
No.83, Avadadenahalli Village,
Marsur post, Anekal taluk,
Bangalore District.

Sir / Madam,

Sub: SEIAA, Tamil Nadu – Terms of Reference with public Hearing (ToR) for the Proposed Rough stone quarry lease over an extent of 3.00.00 Ha in, S. F. No. 220/1 (PART-2) of Gopanapalli village ,Hosur Taluk, Krishnagiri District, Tamil Nadu by Thiru.C.Nithin Reddy - 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/405627/2022, dated 11.11.2022.
2. Your application submitted for Terms of Reference dated: 17.11.2022.
4.Minutes of the 346th SEAC meeting held on 12.01.2023.
5.Minutes of the 591st SEIAA meeting held on 10.02.2023.

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

The proponent, Thiru.C.Nithin Reddy has submitted application for Terms of Reference (ToR) in Form-I, Pre- Feasibility report for the Proposed Rough stone quarry lease over an extent of 3.00.00


**MEMBER SECRETARY
SEIAA-TN**

Ha in, S. F. No. 220/1 (PART-2) of Gopanapalli village ,Hosur Taluk, Krishnagiri District, Tamil Nadu.

Discussion by SEAC and the Remarks:-

Proposed Rough stone quarry lease over an extent of 3.00.00 Ha in, S. F. No. 220/1 (PART-2) of Gopanapalli village ,Hosur Taluk, Krishnagiri District, Tamil Nadu by Thiru.C.Nithin Reddy - For Terms of Reference.

(SIA/TN/MIN/405627/2022,Dt: 11.11.2022)

The proposal was placed in 346th SEAC meeting held on 12.01.2023. The project proponent has given a detailed presentation. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, Thiru.C.Nithin Reddy has applied for Terms of Reference for the proposed Rough stone quarry lease over an extent of 3.00.00 Ha in S. F. No. 220/1 (PART-2) of Gopanapalli village, Hosur Taluk ,Krishnagiri District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. As per the mining plan the lease period is 10 years. The mining plan is for the period of five years & production should not exceed 3,62,270m³ of rough stone & 70,539 m³ of Topsoil (Gravel) With an ultimate depth of mining is 23m BGL (3m topsoil (Gravel) + 20m Rough Stone).The annual peak production is 92,395m³ of Rough Stone (1st year), 70539 m³ of Topsoil (Gravel) (1styear).

Based on the presentation and details furnished by the project proponent, **SEAC decided to grant 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 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.
2. The proponent shall also furnish details/photographs of the garland drains provided.
3. The certified compliance report shall be provided along with EIA report


MEMBER SECRETARY
SEIAA-TN

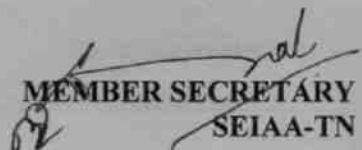
4. In the case of proposed lease exists in the hilly terrain, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the formation of the benches from top to downwards in the proposed quarry lease including the removal of boulder formed over the sloping face during the time of appraisal for obtaining the EC.
5. The PP shall submit detailed mitigation measures particularly related to dust pollution with respect to the location of the dwellings surrounding the proposed project based on the wind direction during the time of appraisal for obtaining the EC
6. 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 30 m below ground level.
7. The proponent shall discuss the funds for mitigation measures to be included in the EMP.
8. The proponent shall adhere to the bench height - 5m as stated in the approved mining plan.
9. 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.
10. 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 30 m from the blast site.
11. 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.
12. 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.


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- h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
13. 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).
14. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
15. The PP shall furnish the revised manpower including the statutory & competent persons as required under the provisions of the MMR 1961 for the proposed quarry based on the volume of rock handled & area of excavation.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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


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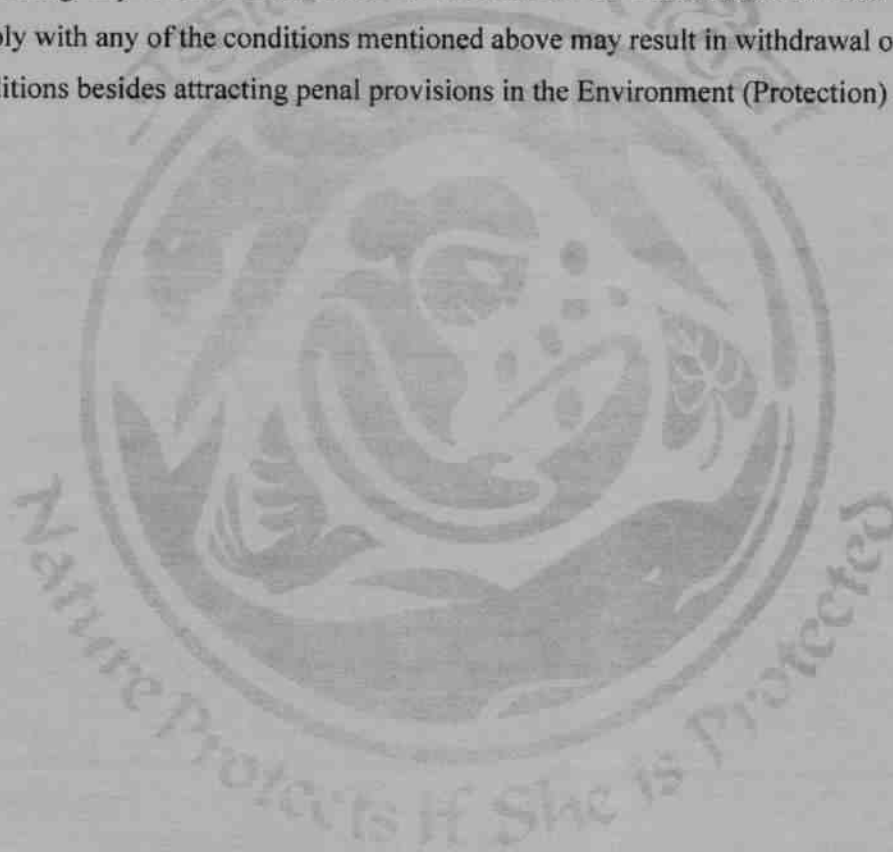
- quarry and the surrounding habitations in the mind.
21. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
 22. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national 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.
 23. 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.
 24. 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.
 25. 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.
 26. Impact on local transport infrastructure due to the Project should be indicated.
 27. 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.
 28. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
 29. 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.
 30. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
 31. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.


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32. 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.
33. 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.
34. 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
35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
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.


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41. 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.
42. 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 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.
43. 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.
44. 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	<i>Aegle marmelos</i>	Vilvam	வில்வம்
2	<i>Adenaanthera pavonina</i>	Manjadi	மஞ்சாடி, ஆனைக்குன்றிமணி
3	<i>Albizia lebbek</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Usil	உசில்
5	<i>Bauhinia purpurea</i>	Mantharai	மந்தாரை
6	<i>Bauhinia racemosa</i>	Aathi	ஆத்தி
7	<i>Bauhinia tomentosa</i>	Iruvathi	இருவாத்தி
8	<i>Buchanania axillaris</i>	Kattuma	காட்டுமா
9	<i>Borassus flabellifer</i>	Panai	பனை
10	<i>Butea monosperma</i>	Murukkamaram	முருக்கமரம்
11	<i>Bobax ceiba</i>	Ilavu, Sevvilavu	இலவு
12	<i>Calophyllum inophyllum</i>	Punnai	புன்னை
13	<i>Cassia fistula</i>	Sarakondrai	சரக்கொன்றை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கொன்றை
15	<i>Chloroxylon sweitenia</i>	Purasamaram	புரசு மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, ManjaIlavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவுளி
18	<i>Creteva adansoni</i>	Mavalingum	மாவிளங்கம்
19	<i>Dillenia indica</i>	Uva, Uzha	உசா
20	<i>Dillenia pentagyna</i>	SiruUva, Sitruzha	சிறு உசா
21	<i>Diospyro sebum</i>	Karungali	கருங்காலி
22	<i>Diospyro schloroxylon</i>	Vaganai	வாகனை
23	<i>Ficus amplissima</i>	Kalltchi	கல் இச்சி
24	<i>Hibiscus tiliaceou</i>	Aatrupoovarasu	ஆற்றுப்புலரசு
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aayili	ஆயா மரம், ஆயிலி
27	<i>Lannea coromandelica</i>	Odhiam	ஒதியம்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மருது
29	<i>Lepisanthus tetraphylla</i>	Neikottaimaram	நெய் கொட்டை மரம்
30	<i>Limonia acidissima</i>	Vila maram	விலா மரம்
31	<i>Litsea glutinos</i>	Pisinpattai	சிரம்பா. பிசின்பட்டை
32	<i>Madhuca longifolia</i>	Illuppai	இலுப்பை
33	<i>Manilkara hexandra</i>	UlakkaiPaalai	உலக்கை பாலை
34	<i>Mimusops elengi</i>	Magizhamaram	மகிழமரம்
35	<i>Mitragyna parvifolia</i>	Kadambu	கடம்பு
36	<i>Morinda pubescens</i>	Nuna	நுணா
37	<i>Morinda citrifolia</i>	Vellai Nuna	வெள்ளை நுணா
38	<i>Phoenix sylvestre</i>	Eachai	ஈச்சமரம்
39	<i>Pongamia pinnat</i>	Pungam	புங்கம்

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

Discussion by SEIAA and the Remarks:-

The proposal was placed in the 591st Authority meeting held on 10.02.2023. The authority noted that this proposal was placed for appraisal in this 346th meeting of SEAC held on 12.01.2023. 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. The EMP should include mine closure plan using topsoil and weathered rock. It should be used for site restoration.

Annexure 'B'

Cluster Management Committee

1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry.


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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. The committee shall furnish an action plan to achieve sustainable development goals with reference to water, sanitation & safety.
11. The committee shall furnish the fire safety and evacuation plan in the case of fire accidents.

Impact study of mining

12. 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 & soil biological, physical land chemical features .
 - 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.


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- 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.

Agriculture & Agro-Biodiversity

- 13. Impact on surrounding agricultural fields around the proposed mining Area.
- 14. Impact on soil flora & vegetation around the project site.
- 15. 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.
- 16. 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.
- 17. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.
- 18. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.

Forests

- 19. The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.
- 20. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.
- 21. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.
- 22. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.

Water Environment

- 23. 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


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intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.

24. Erosion Control measures.

25. 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.

26. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.

27. The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.

28. 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.

29. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.

30. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.

Energy

31. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.

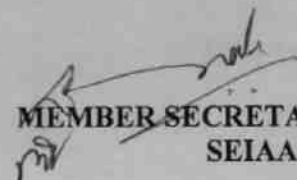
Climate Change

32. 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.

33. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.

Mine Closure Plan

34. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.


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EMP

35. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued.
36. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.

Risk Assessment

37. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.

Disaster Management Plan

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

Others

39. 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.
40. 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.
41. 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.

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


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- 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 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


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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 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


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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 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



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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.
- 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


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- 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.
 - 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.


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- 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 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)


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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 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 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 its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this



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information may not be necessary)

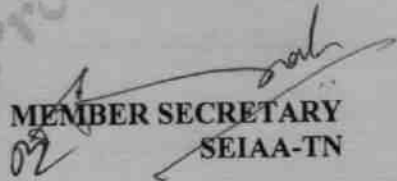
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
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.

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.


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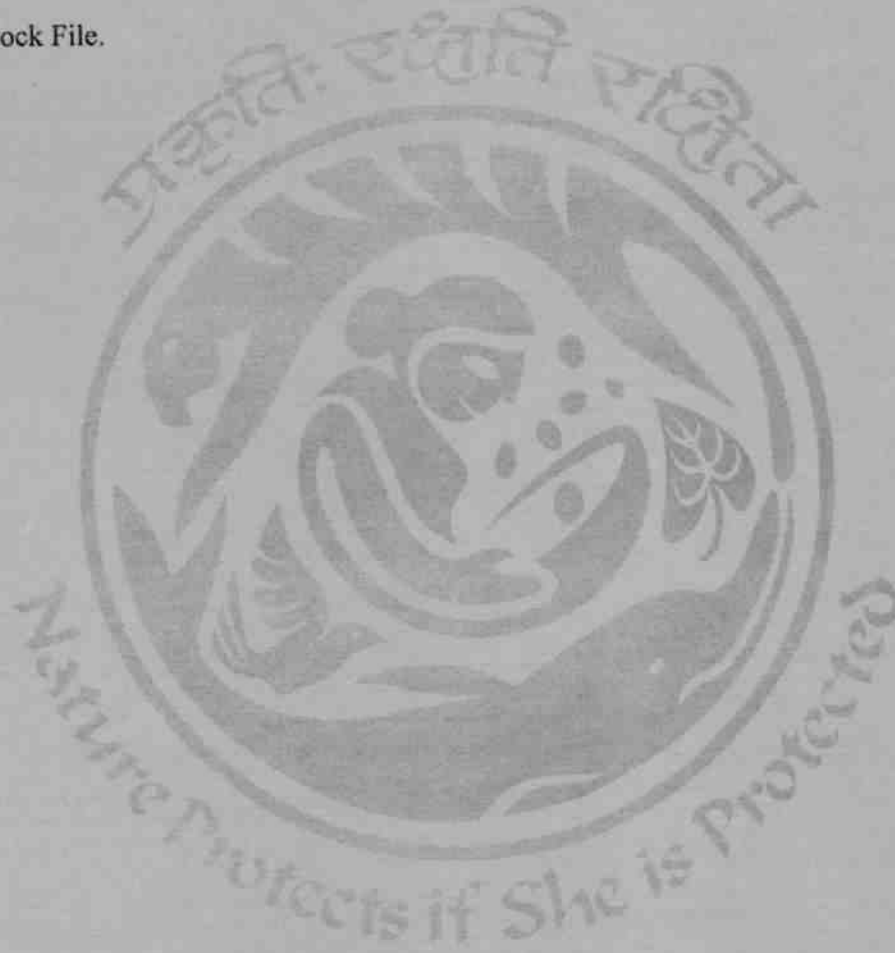
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF & CC vide O.M. No. J-11013/41/2006-IA.II (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-11013/77/2004-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 will take 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.



ANNEXURE II
ToR Compliance

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

COMPLIANCE OF TOR CONDITIONS

Point wise compliance of ToR points issued by SEIAA, TN vide letter No. SEIAA-TN/F. No. 9570/ToR-1348/2023 Dated: 10.02.2023 for Mining of Minor Minerals in the Mine of “Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha at S.F.No. 381(Part 1) of Gopanapalli Village, Hosur Taluk, Tirunelveli District, Tamilnadu 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.	<p>Precise area communication letter received from the district collector, Krishnagiri district vide letter Na.Ka.En.536/2022/Kanimam dated: 06.05.2022.</p> <p>Mining Plan was approved by The Deputy Director, Department of Geology & Mining, Krishnagiri district vide letter Rc.No.539/2022/Mines dated 04.05.2022.</p> <p>As area is being exploited for the first time hence Year-wise production details since 1994 and before 1994 are not relevant or applicable.</p> <p>Proposed Production of Rough Stone & Gravel for five years is proposed in the EIA/EMP in chapter no-2.</p>	<p>Chapter-2</p> <p>Table No.2.2</p>
2.	A copy of document in support of the fact that the Proponent is the rightful lessee of the mine should be given.	The mine lease area of 3.00.0 hectare in Gopanapalli Village for Rough stone quarry approved by Assistant Director, Dept. of Geology & Mining, Krishnagiri vide Rc.No.539/2022/Mines dated 04.05.2022	Annexure - III
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 and mining technology and should be in the name of the lessee.	<p>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.</p> <p>The mining plan of the project site has been submitted to The Assistant Director, Dept. of Geology & Mining, Krishnagiri</p>	<p>Annexure-IV</p> <p>Chapter-II</p>

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

4	All corner coordinates of the mine lease area, superimposed on a High-Resolution 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).	Details of coordinates of all corners of proposed mining lease area have been incorporated in mining plan and Chapter 2 of EIA/ EMP Report.	Chapter-2, Fig no. 2.2
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
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 should be given Chapter 2.	Chapter-2
7	<p>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?</p> <p>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</p>	Noted.	

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	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,
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.	Study area comprises of 10 km radius from the mine lease boundary. Key Plan showing core zone (ML area).	Chapter-2 Fig no. 2.5
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.	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 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.	Chapter-2, Table no. 2.4
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.	Topsoil formation will be removed and transported to the needy end user only after obtaining permission and paying necessary seigniorage fees to the Government.	Chapter-2,

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

12	<p>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.</p> <p>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.</p>	<p>Complied.</p> <p>The proposed mining lease area is not falling under forest land.</p>	
13	<p>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.</p>	<p>The proposed mining lease area is not falling under forest land.</p>	
14	<p>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.</p>	<p>Not Applicable.</p> <p>There is no involvement of forest land in the project area.</p>	
15	<p>The vegetation in the RF / PF areas in the study area, with necessary details, should be given.</p>	<p>Details of flora have been discussed in Chapter-3 of the EIA/EMP Report.</p>	Chapter-3

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

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 State Wildlife Department/Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 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 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	Details biological study (flora & fauna) within 10 km radius of the project site have been incorporated in Chapter-3 of EIA/ EMP Report. 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

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	<p>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.</p>		
19	<p>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.</p>	<p>The proposed mining lease area is not falling under critically polluted area.</p>	
20	<p>Similarly, for coastal projects, A CRZ map duly authenticated by 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)</p>	<p>There is no Coastal Zone within 15km radius of the project site.</p>	
21	<p>R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the</p>	<p>There is no Rehabilitation and resettlement is involved. Land classified as Patta land</p>	

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	<p>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 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.</p>		
22	<p>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.</p> <p>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</p>	<p>Baseline data collected during Pre-Monsoon Season and Monsoon (January to March 2023) has been incorporated in EIA/EMP report.</p> <p>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.</p>	Chapter 3

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	<p>monitoring station within 500m of the mine lease in the pre- dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.</p>		
23	<p>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.</p> <p>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.</p>	<p>Air quality modelling & Impact of Air quality will be furnished in Final EIA report</p> <p>Transportation of mineral during operation of mines will be done by road & SH 17A through dumpers and the impact of movement of vehicles are incorporated in EIA/EMP report.</p> <p>Air quality modelling & Impact of Air quality will be furnished in Final EIA report</p>	<p>Chapter-4</p> <p>Page No.106</p>
24	<p>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.</p>	<p>Total water requirement: 1.9KLD Dust Suppression: 0.5 KLD Domestic Purpose: 0.5 KLD Plantation :0.5 KLD Domestic Water will be sourced from nearby Goolisandram which is about 0.37 Km-NNW of the area.</p>	Chapter-2
25	<p>Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.</p>	<p>Not Applicable Water will be taken from nearby villages</p>	
26	<p>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,</p>	<p>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.</p>	

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	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.	Impact of the project on the water quality & its mitigation measures has been incorporated in Chapter-4 of EIA/EMP report.	Chapter-4
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: 48 m BGL The ground water table is reported as 88m below surface ground level in nearby wells of this area. Now, the present quarry shall be proposed above the water table and hence, quarrying may not affect the ground water So mine working will not be intersecting the ground water table.	Chapter-2
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.	There is no any stream crossing in the proposed quarry	Executive Summary
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.	Highest elevation: 882 AMSL Depth: 48 m Below Ground Level	Chapter-2 Table no. 2.2
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,	Green Belt Development plan is proved given in Chapter 2.	Chapter-2

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	<p>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</p>		
32	<p>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</p>	<p>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.</p>	Chapter-3
33	<p>Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.</p>	<p>Adequate infrastructure & other facilities shall be provided to the mine workers. Details are given in chapter-2 of EIA/EMP</p>	Chapter-2

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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 IV
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 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.	Chapter-10
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
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 has been discussed in Chapter 4	Chapter-4
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

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39	Public hearing points raised and 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.	Public Hearing proceedings will be furnished in Final EIA report													
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.	Not applicable No. litigation is pending against the project in any court.													
41	The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S. No</th> <th style="text-align: center;">Description</th> <th style="text-align: center;">Cost</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Fixed Asset Cost</td> <td style="text-align: right;">43890000</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Operational Cost</td> <td style="text-align: right;">25,00,000</td> </tr> <tr> <td></td> <td>Total</td> <td style="text-align: right;">43690000</td> </tr> </tbody> </table> <p>EMP Cost: 169,70,946/-</p>	S. No	Description	Cost	1	Fixed Asset Cost	43890000	2	Operational Cost	25,00,000		Total	43690000	Chapter-8
S. No	Description	Cost													
1	Fixed Asset Cost	43890000													
2	Operational Cost	25,00,000													
	Total	43690000													
42	Disaster Management Plan shall be prepared and included in the EIA/EMP Report.	Disaster Management and Risk Assessment has been incorporated in Chapter-7	Chapter-7												
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.	Benefits of the project has incorporated	Chapter-8												
44	Besides the above, the below 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													
(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	Complied													

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	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.	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 instructions for the proponents and instructions for the consultants issued by MoEF 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.	The EIA report has been 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)	Will be complied after grant environment clearance from SEIAA,	

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	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 Environment & Forests, if applicable.	Tamilnadu	
(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.	

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

Additional TOR by SEAC

S.No.	Condition	Compliance
1.	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	Agreed to comply.
2.	The proponent shall also furnish details/photographs of the garland drains provided.	Agreed to comply
3.	The certified compliance report shall be provided along with EIA report	The proposed quarry is fresh quarry
4.	In the case of proposed lease exists in the hilly terrain, the Project Proponent (PP) shall prepare and submit an 'Action Plan for carrying out the formation of the benches from top to downwards in the proposed quarry lease including the removal of boulder formed over the sloping face during the time of appraisal for obtaining the EC.	Agreed to comply
5.	The PP shall submit detailed mitigation measures particularly related to dust pollution with respect to the location of the dwellings surrounding the proposed project based on the wind direction during the time of appraisal for obtaining the EC	Agreed to comply
6.	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 30 m below ground level.	Agreed to comply
7.	The proponent shall discuss the funds for mitigation measures to be included in the EMP.	Agreed to comply
8.	The proponent shall adhere to the bench height-5m as stated in the approved mining plan	Agreed to comply
9.	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.	Agreed to comply
10.	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	Agreed to comply

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	travel beyond 30 m from the blast site.	
11.	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.	The EIA Coordinators will 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.
12.	<p>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,</p> <ol style="list-style-type: none"> 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. <p>Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.</p>	The proposed quarry is fresh quarry
13.	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 feature of the study area (core and buffer zone)	<p>Complied.</p> <p>All corners with coordinates of the mine lease area has attached with EIA report in chapter 2</p>
14.	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.
15.	The PP shall furnish the revised manpower including the statutory and competent persons as required under the provisions of the MMR 1961 for the proposed quarry based on the volume of rock handled and area of excavation.	The PP will furnish the revised manpower including the statutory and competent persons as required under the provisions of the MMR 1961 for the proposed quarry based on the volume of rock handled and area of excavation.

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16.	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 follow as on prescribed norms by Government.
17.	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
18.	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.
19.	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
20.	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.
21.	Rainwater harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	Noted. Agree to comply.

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

22.	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.
23.	Details of the land for storage of Overburden/Waste dump (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 overburden is in the form of top soil and weathered rock formation. It will be quarried for filling purposes to nearby end users and part of soil will be preserved all along the boundary as barrier for afforestation.
24.	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	Noted
25.	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.	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.
26.	Impact on local transport infrastructure due to the Project should be indicated.	Traffic impact assessment has given in EIA report chapter 3.
27.	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.
28.	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	Noted. The mine plan and mine closure plan has been approved by the Assistant Director, Department of Mining and Geology, Virudhunagar District
29.	Public hearing points raised and commitments of the PP on the same along with time bound Action Plan with budgetary provisions to implement the	Noted and will be complied in Final EIA report.

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	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.	
30.	The Public hearing advertisement shall be published in on major National daily and one most circulated vernacular daily	Noted. Agree to comply.
31.	The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing Tamil Language also.	Noted
32.	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
33.	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.	Noted. Agree to comply
34.	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 meter wide and in between blocks in an organized manner.	The green belt plan enclosed with mining plates in Annexure.
35.	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.
36.	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.
37.	Occupational Health impacts of the Project should	Occupational Health impacts of the

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	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.	project has prepared and incorporated in Environmental management plan.
38.	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.
39.	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 given with time frames for implementation.	The socio-economic study has been discussed in chapter 3.
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	No. litigation is pending against the project in any court.
41.	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
42.	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 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	Agree to comply.
43.	The PP shall prepare the EMP for the entire life/lease of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	The PP will prepare the EMP for the entire life/lease of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
44.	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.

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Additional TOR by SEIAA

1.	Cluster Management Committee, which must include all the proponents in the cluster as members including the existing as well as proposed quarry.	Noted All the proponents in the cluster is discussed in Chapter-2
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.,	Green belt development, water sprinkling, tree plantation is discussed in chapter-2
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.	Agreed to comply.
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.	Agreed to comply. It will be furnished in final EIA report.
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	Risk management plan is discussed in Chapter-7
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.	Agreed to comply. It will be furnished in final EIA report.
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.	Agreed to comply. It will be furnished in final EIA report.
8.	The committee shall furnish the Emergency Management plan within the cluster.	Emergency management plan is discussed in Chapter-7
9.	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public.	Health of workers and staff is discussed in Chapter-9
10.		
11.	The committee shall furnish an action plan to achieve sustainable development goals with reference to water, sanitation & safety.	Agreed to comply. It will be furnished in final EIA report.

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12.	The committee shall furnish the fire safety and evacuation plan in the case of fire accidents	Fire safety and evacuation plan is discussed in chapter-7
13.	<p>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.</p> <ol style="list-style-type: none"> a) Soil health & bio-diversity b) Climate change leading to Droughts, Floods etc., c) Pollution leading to release Greenhouse gases (GHG), rise in Temperature & Livelihood of the local people. d) Possibilities of water containment and impact on aquatic ecosystem health. e) Agriculture, Forestry & Traditional practices. f) Hydrothermal/Geothermal effects due to destruction in the Environment. g) Bio-geochemical processes and its foot prints including environmental stress h) Sediment geochemistry in the surface streams <p>Sediment geochemistry in the surface streams.</p>	<p>The biodiversity has been studied and discussed in chapter 3.</p> <p>The soil erosion map 5km surrounding the project site has been given in chapter 3.</p> <p>The detailed study will be carried out and will be enclosed in the Draft EIA Report.</p>
14.	Impact on surrounding agricultural fields around the proposed mining area.	There is no agricultural fields around the proposed mining area
15.	Impact on soil flora & vegetation around the project site	Impact on soil flora & vegetation around the project site discussed in Chapter-4
16.	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.	The detailed study will be carried out and will be furnished in the Final EIA Report.
17.	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	Obtained and same has been attached as Annexure.
18.	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services	Noted and public hearing details will be included along with final EIA report.
19.	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	Noted and will be complied in Final EIA report.
20.	The project proponent shall detailed study on	The biodiversity has been studied and

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	impact of mining on Reserve forests free ranging wildlife.	discussed in chapter 3.
21.	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	The biological environment impacts, and its mitigation measures has been given in Chapter 4
22.	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.	There is no existing trees in the project site and surrounding the project site. Only thorny shrubs were present.
23.	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.	The water environment impacts and its mitigation measures has been given in Chapter 4
24.	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.	The EMP details has been given in Chapter 8
25.	Erosion Control measures.	Noted and will be complied in Final EIA report.
26.	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.	There is no Reserve Forest within 1 km radius of the Project Site. Hence our project will not cause any damage to reserve forest. Also, we have received letter from DFO indicating the nearest reserve forest and attached with Annexures. There is no protected areas, National Parks, Corridors and Wildlife pathways near project site.
27.	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	Noted and will be complied in Final EIA report.
28.	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	Noted. Agree to comply.
29.	The PP shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to	Noted. Agree to comply.

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	nearby caves, heritage site and archaeological sites possible landform changes visual and aesthetic impacts	
30.	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	Noted. Agree to comply.
31.	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites	Environmental Impact Assessment study is detailed in Chapter 3.
32.	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.	Agreed to comply
33.	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	Agreed to comply
34.	The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.	A Risk Assessment and management Plan will be prepared and included in the final EIA/EMP Report.
35.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued	Mine closure plan has been attached along with mining plates as Annexure.
36.	Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued	Environment Management Plan has been described in detail in Chapter-10 of the Draft EIA/EMP Report.
37.	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	A Risk Assessment and management Plan will be prepared and included in the final EIA/EMP Report.
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 related activities covering the entire mine lease period as per precise area communication order issued.	A disaster management Plan will be prepared and included in the final EIA/EMP Report.
39.	The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water	VAO certificate is enclosed as Annexure.

TOR Reply of Proposed Rough stone Quarry Over an Extent of 3.00.0 Ha

	bodies such as streams, odal, vaari, canal, channel, river, lake pond, tank etc.	
40.	As per the MoEF& CC office memorandum F.No 12-65/2017-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	Agreed to comply
41.	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 freshwater systems due to activities, contemplated during mining may be investigated and reported.	Agreed to comply

ANNEXURE III

Mining Plan Approval Letter, 500m Radius Letter

From

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

To

Thiru.C.Nithin Reddy,
S/o. Chandra Reddy,
No. 83, Avadadenahalli Village,
Marsur Post, Anekal Taluk,
Bangalore – 562 106.

Rc.No.536/2022/Mines Dated: 04 .08.2022.

Sir,

Sub: Mines and Minerals – Rough stone - Krishnagiri District – Hosur Taluk – Gopanapalli Village- Govt Poramboke land in S.F.No. 220/1(Part-2) Over an extent of 3.00.0 Hects – Tender Cum Auction conducted – Thiru.C. Nithin Reddy 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.536/2022/Mines dated: 06.05.2022.
3. Draft Mining plan submitted by Thiru. C. Nithin Reddy, dated: 01.08.2022

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. 220/1(Part-2) Over an extent of 3.00.0 Hects of Gopanapalli Village, Hosur Taluk, Thiru. C. Nithin Reddy has quoted highest lease amount and hence he has been declared as successful bidder.

3. Accordingly, Thiru. C. Nithin Reddy has been directed to submit the mining plan for approval and to obtain Environmental Clearance for quarrying Rough stone over an extent of 3.00.0 Hects of Government Poramboke land in S.F.No. 220/1(Part-2) in Gopanapalli Village, Hosur Taluk, Krishnagiri District for a period of 10 (Ten) years

under the provisions of Rule 8 of Tamil Nadu Minor Mineral Concession Rules, 1959.

4. In this regard, the bidder Thiru. C. Nithin Reddy had submitted 03 copies of draft Mining Plan vide letter dated:01.08.2022 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 first and second five years are as follows.

First Five Years	Year	Recoverable Reserves (m³) @ 100%	Top Soil (Gravel)in (m³)
	1 st Year	142569	71190
	2 nd year	147182	0
	3 rd year	126182	0
	4 th year	106582	0
	5 th year	52871	0
	Total	575386	71190

Second Five Years	Year	Recoverable Reserves (m³) @ 100%	Top Soil (Gravel)in (m³)
	1 st Year	35511	0
	2 nd year	27636	0
	3 rd year	43946	0
	4 th year	56182	0
	5 th year	42182	0
	Total	205457	0

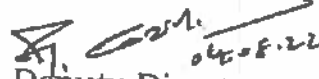
6. Hence, as per the powers delegated under Rule 42 of TNMMCR, 1959 and also as per the guidelines/instructions issued by the Commissioner of Geology and Mining, vide letter Rc.No.3868/LC/2012 dated:19.11.2012, the said mining plan submitted by the Thiru. C. Nithin Reddy is here by approved subject to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


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

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

To
Thiru.C.Nithin Reddy,
S/o. Chandra Reddy,
No. 83, Avadadenahalli Village,
Marsur Post, Anekal Taluk,
Bangalore - 562 106.

Roc.No.536/2022/Mines Dated: .08.2022

Sir,

Sub: Mines and Minerals - Rough stone - Krishnagiri District - Hosur Taluk - Gopanapalli Village- Govt Poramboke land in S.F.No. 220/1(Part - 2) Over an extent of 3.00.0 Hects - Tender Cum Auction conducted - Thiru.C.Nithin Reddy 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.536/2022/Mines dated: 06.05.2022.
3. Draft Mining plan submitted by Thiru.C.Nithin Reddy, dated: 01.08.2022
4. This Office Letter No.536/2022/Mines dated: 04 .08.2022

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. 220/1(Part - 2) Over an extent of 3.00.0 Hects of Gopanapalli Village, Hosur Taluk.

3. Thiru.C.Nithin Reddy 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 3.00.0 Hects of government lands in S.F.No. 220/1(Part - 2) in Gopanapalli Village, Hosur Taluk, Krishnagiri District for a period of 10 years 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: 06.05.2022 with a direction to submit approved mining plan and Environment Clearance.

4. Accordingly, Thiru.C.Nithin Reddy had submitted 03 copies of draft Mining Plan vide letter dated:01.08.2022 and the same has been approved vide this office letter dated: 04.08.2022. 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.
1.	P.Nagarajareddy, S/o. Pappireddy, D.No. 2/32, Balageri Village, Mudhuganapalli post, Hosur, Krishnagiri.	Hosapuram Village, Denkanikottai Taluk	Rough Stone	457 (Part-1)	2.00.0	Rc.No. 111/2016/ Mines Dated: 08.08.2016	17.08.2016 to 16.08.2026
2	P.Venkata reddy,S/o. Pedha Obul Reddy, 3/213, Periya Kodipalli Village, Kempat, Muttur, Denkanikottai, Krishnagiri.	Hosapuram Village, Denkanikottai Taluk	Rough Stone	457 (Part-2)	3.70.0	Rc.No. 112/2016/ Mines Dated: 26.02.2020	26.02.2020 to 25.02.2030

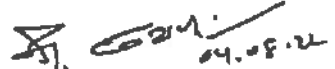
II. Details of abandoned/Old quarries.

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

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.	Thiru.Nithin Reddy	Gopanapalli Village, Hosur Taluk	Rough Stone	220/1 (part -2)	3.00.0	Rc.No. 536/2022/Mines Dated: 05.05.2022	Instant Proposal (Precise area given)
2.	M/s. Natural Stone Industry	Gopanapalli Village, Hosur Taluk	Rough Stone	220/1 (part -1)	3.00.0	Rc.No. 535/2022/Mines Dated: 21.04.2022	Precise area given

3.	Thiru.Vijaya Kumar	Gopanapalli Village, Hosur Taluk	Rough Stone	220/1 (part -4)	2.00.0	Rc.No. 538/2022/Mines Dated: 26.04.2022	Precise area given
4.	Thiru.S. Raghu	Gopanapalli Village, Hosur Taluk	Rough Stone	381 (Part-1)	1.30.0	Rc.No. 539/2022/Mines dated: 04.05.2022	Precise area given
5.	M/s. Srre Krish Rough Stone	Gopanapalli Village, Hosur Taluk	Rough Stone	220/1 (part -3)	3.00.0	Rc.No. 537/2022/Mines Dated: 21.04.2022	Precise area given
6.	Thiru. Dhivakar	Gopanapalli Village, Hosur Taluk	Rough Stone	381/1 (part -2)	1.50.0	Rc.No. 540/2022/Mines Dated: 22.04.2022	Precise area given


 Deputy Director,
 Dept of Geology and Mining,
 Krishnagiri.

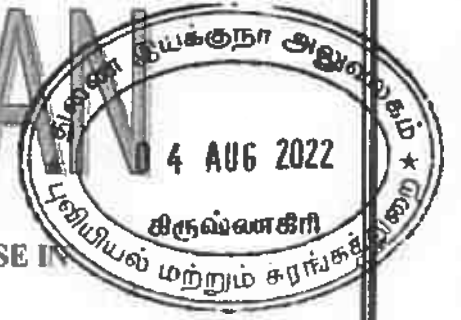
Copy to :-

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


 04/08/22

Annexure IV
Mining Plan

MINING PLAN



FOR

GRANT OF ROUGH STONE QUARRY LEASE IN
GOVERNMENT PORAMBOKE LAND

TOTAL LEASE GRANTED PERIOD 10 YEARS

PERIOD OF MINING 10 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 : 3.00.00 HA.
S. F. No. : 220/1(PART-2).
VILLAGE : GOPANAPALLI.
TALUK : HOSUR.
DISTRICT : KRISHNAGIRI.
STATE : TAMIL NADU.

APPLICANT

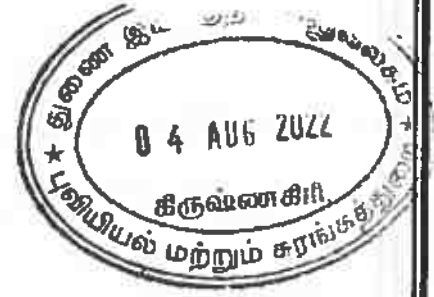
THIRU.C.NITHIN REDDY,
S/O. CHANDRA REDDY
No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

PREPARED BY

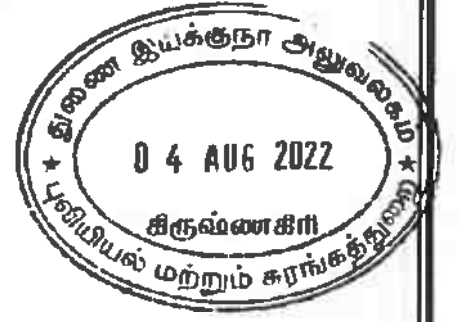
S.MATHAN PRAKASH,M.Sc.,M.PHIL.,
RQP/CNN/270/2016/A,
No.2/274, EAST STREET,
KULASEKARANALLUR POST,
OTTAPIDARAM TALUK,
THOOTHUKUDI DISTRICT - 628 401.

Email: geomathanprakash@gmail.com
CELL : 8668020217.

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11.0	Environment Management Plan	25
12.0	Mine Closure Plan	28
13.0	Any Other Details Intend to furnish by the Applicant	29



ANNEXURES

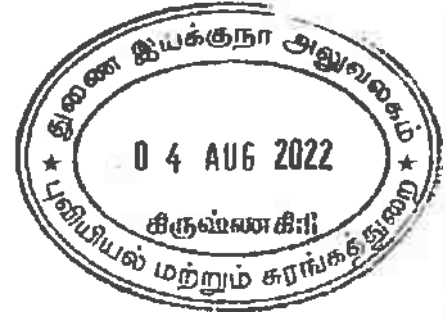
Sl. No.	Description	Annexure No.
1.	Precise Area Communication letter	I
2.	Copy of Krishnagiri District Gazette	II
3.	Copy of DFO letter	III
4.	Copy of FMB & Combined Sketch	IV-A & B
5.	Copy of Adangal & 'A' Register	V
6.	Copy of Applicant ID Proof	VI
7.	Copy of RQP Certificate	VII
8.	Copy of Applied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

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 of the Lease Area	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 and Sections (1 st Five (I-V)Years)	IV-A, A1	1:1000
9.	Year Wise Development And Production Plan and Sections(2 nd Five (VI-X)Years)	IV- B, B1	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

C. Nithin Reddy,
S/o. Chandra Reddy
No.83, Avadadenahalli Village,
Marsur Post,
Anekal Taluk,
Bangalore District - 562 106.



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 **3.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.220/1(Part-2)** of **Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu State** has been prepared by **Shri. S. Mathan Prakash, M.Sc., M.Phil.,** 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

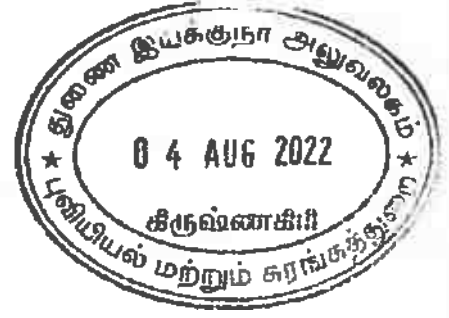
I hereby undertake that all modifications so made in the Mining Plan by the Recognized Qualified Person may be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respects.

Place: Bangalore

Date:


(C. Nithin Reddy)
Signature of the Applicant

C. Nithin Reddy,
S/o. Chandra Reddy
No.83, Avadadenahalli Village,
Marsur Post,
Anekal Taluk,
Bangalore District - 562 106.



DECLARATION

I hereby declare that the Mining Plan in respect of Rough Stone quarry over an extent of **3.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.220/1(Part-2)** of **Gopanapalli Village, Hosur 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.

C. Nithin
(C.Nithin Reddy)
Signature of the Applicant

Place: Bangalore

Date:

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



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 **3.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.220/1(Part-2)** of **Gopanapalli Village, Hosur Taluk, Krishnagiri District** District, Tamil Nadu State obtained by **Thiru. C. Nithin Reddy**, 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:

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

No.2/274, East Street,
Kulasekaranallur Post,
Ottapalam Taluk,
Thoothukudi - 628 401.
Cell: 86680 2675

04 AUG 2022
சென்னை
மாநில மருந்து கட்டுப்பாட்டுத் துறை

CERTIFICATE

This is to certify that during preparation of Mining Plan for **Rough Stone** quarry over an extent **3.00.00 Hectares** of **Government Poramboke Land** in **S.F.No.220/1(Part-2)** of **Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu State** for **Thiru. C. Nithin Reddy**, 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:

MINING PLAN FOR MINOR MINERALS
ROUGH STONE QUARRY
TOTAL LEASE GRANTED PERIOD 10 YEARS
PROPOSED PERIOD OF MINING 10 YEARS



Over an extent of 3.00.00 Hectares of Government Poramboke Land
S.F.No.220/1(Part-2) of Gopanapalli Village, Hosur 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. **Thiru. C. Nithin Reddy**, S/o. Chandra Reddy, residing at No.83, Avadadenahalli village, Marsur Post, Anekal Taluk, Bangalore District- 562 106 has applied for the grant of quarry lease to quarry **Rough Stone** over an extent of **3.00.00 Hectares of Government Poramboke Land** in S.F.No.220/1(Part-2) of **Gopanapalli Village, Hosur Taluk, Krishnagiri District** of Tamil Nadu State for a period of Ten Years under Tender cum Auction.
2. The Applicant has been the Successful **HIGHEST BIDDER** for an Amount **Rs.4,61,00,000/-** 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 **Thiru. C. Nithin Reddy** over an extent of 3.00.00 hectares in Government Poramboke land in S.F.No.220/1(Part-2) of Gopanapalli Village, Hosur Taluk, Krishnagiri District of Tamil Nadu State for a period of **Ten Years** Vide Letter **Rc.No.536/2022/Mines** dated **06.05.2022** 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 **Thiru. C. Nithin Reddy** 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.

HUP/CWN/270/2016/A

5. This Mining Plan is prepared for the applied Rough Stone Quarry for the period of Ten 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 1644538M³ and Mineable & recoverable Reserves is estimated as 780843M³ of Rough Stone after leaving necessary safety distance from the lease boundary as indicated in the precise area communication and relevant mining laws in force.

7. The proposed production scheduled for the Ten years is estimated as 780843M³ (for the First five (I-V)years- 575386M³ & for the Next five (VI-X)years- 205457M³) of Rough Stone.

Proposed average annual production of Rough stone 78084M³.

8. Estimated Life of the Quarry

Total Mineable ROM	= 780843 M ³
Recoverable Reserves @ 100%	= 780843 M ³
Average production per year	= 78084 M ³
Estimated Life of the Quarry	= 780843 / 78084 = 10.0 years

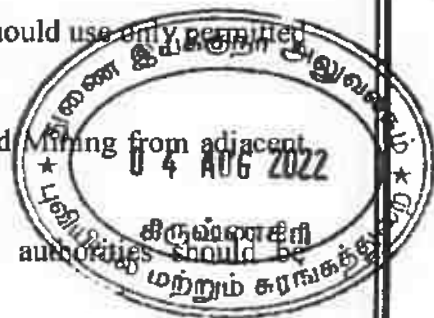
Life = 10.0 years

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.

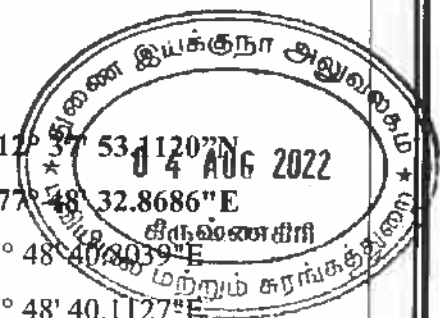
- viii) Noise level should not exceed 80db and the vehicles should use only permitted Air Horn while on road near residential areas.
- ix) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly adhered to.
- x) And any other conditions as stipulated by the concerned authorities should be followed to protect the environment.



2.0 EXECUTIVE SUMMARY:

a.	Name of the Village	:	Gopaanapalli
b.	Name of the Panchayat / Union	:	Gopanapalli / Hosur
c.	The proposed total Mineable Reserves	:	780843M ³
d.	The proposed quantity of reserves (level of production) for Ten Years to be mined is (Recoverable reserves)	:	780843M ³ (for the First five (I-V)years- 575386M ³ & for the Next five (VI-X)years- 205457M ³)
e.	Total extent of the area	:	3.00.00 Ha.
f.	Proposed Period of mining	:	Ten years
g.	Proposed Depth of mining	:	Mining Reserves Calculated upto 59m - Top Soil(Gravel) 3m + Rough stone 56m. (Surface Ground Level Above height is 5m and Surface Ground Level Below Depth is 54m).
h.	Existing Pit Dimension	:	Nil
i.	Average production per year	:	78084M ³
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	:	Rs.4,63,90,000/-
	b. Operational Cost	:	Rs.30,00,000/-
	c. EMP Cost	:	Rs.3,50,000/-

m.	The area applied for lease is bounded by four corners and the coordinates are	: Toposheet No. 57 - H/14
	Latitude	: 12° 37' 54.3668"N to 12° 37' 53.1120"N
	Longitude	: 77° 48' 40.8039"E to 77° 48' 32.8686"E
	North East	: 12° 37' 54.3668" N 77° 48' 40.8039"E
	South East	: 12° 37' 49.2086" N 77° 48' 40.1127"E
	North West	: 12° 37' 56.7500" N 77° 48' 33.7498"E
	South West	: 12° 37' 53.1120" N 77° 48' 32.8686"E



3.0 GENERAL INFORMATION:

3.1	a.	Name of the Applicant	: Thiru. C. Nithin Reddy,
	b.	Address of the Applicant with phone No and e-mail id if any	: C. Nithin Reddy, S/o. Chandra Reddy No.83, Avadadenahalli Village, Marsur Post, Anekal Taluk, Bangalore District - 562 106.
	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.536/2022/Mines dated 06.05.2022
	c.	Period of permission	: 10 Years
	d.	Name and Address of the Recognized Qualified Person preparing the Mining Plan	: 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: geomathanraj@gmail.com
	e.	RQP Regn. No.	: RQP/CNN/270/2016/A Valid up to 09.02.2026.

4.0 LOCATION:

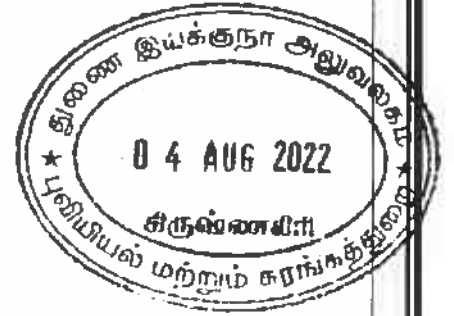
a. Details of the Area:

State	District	Panchayat / Union	Taluk	Village	S.F.No.	Extent in Hectares
Tamilnadu	Krishnagiri	Gopanapalli/ /Hosur	Hosur	Gopanapalli	04 AUG 2022	3.00.00
TOTAL =						3.00.00
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° 37' 54.3668"N to 12° 37' 53.1120"N : 77° 48' 40.8039"E to 77° 48' 32.8686"E		
e.	Existence of Public Road / Railway line if any nearby the area and approximate distance		:	Krishnagiri - Shoolagiri = 28.0 Kms Shoolagiri- Kelamangalam = 18.6 Kms Quarry site is located in Northwestern side at a distance of 5.3 km. from Kelamangalam village.		

PART - A

5.0 GEOLOGY AND MINERAL RESERVES:

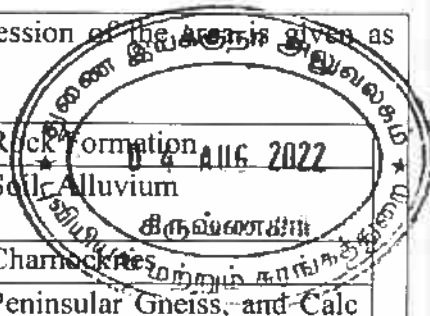
5.1	a.	<p>Topography:</p> <p>1. The area applied for quarry lease is almost hilly terrain area sloping towards NorthWestern side covered with Rough Stone which does not sustain any type of vegetation. The altitude of the area is Maximum 882m and Minimum 877m above MSL.</p> <p>2. No major river is found nearby the lease area.</p> <p>3. Water table is noticed at a depth of 88m from the below surface in the adjacent open wells and bore wells of the area.</p> <p>4. Temperature of the area is reported to be 18⁰C to a maximum of 38⁰C during summer.</p> <p>5. Rainfall of this area is about 800mm to 900 mm during the monsoons in a year.</p>
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	<p>b. Infrastructures nearby the applied Lease area.</p> <p>1. Post Office : Mugalur – 1.7 Kms</p> <p>2. Police Station : Kelamangalam – 6.7 Kms</p> <p>3. G.H : Hosur – 15.0 Kms</p> <p>4. Fire service : Hosur – 22.0 Kms</p> <p>5. Railway Station : Hosur – 14.0 Kms</p> <p>6. School : Nagondapalli – 4.0 Kms</p> <p>7. Airport : Bangalore – 79.0 Kms</p> <p>8. Seaport : Chennai – 318.0 Kms</p>							
	<p>c. Regional Geology :</p>	<p>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.</p> <table border="1" data-bbox="638 1232 1404 1478"> <thead> <tr> <th>Age</th> <th>Rock Formation</th> </tr> </thead> <tbody> <tr> <td>1. Recent to Sub recent</td> <td>Soil, Alluvium</td> </tr> <tr> <td>2. Archaean</td> <td>Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites</td> </tr> </tbody> </table>	Age	Rock Formation	1. Recent to Sub recent	Soil, Alluvium	2. Archaean	Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites
Age	Rock Formation							
1. Recent to Sub recent	Soil, Alluvium							
2. Archaean	Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites							
	<p>d. Geology of the Lease Area</p>	<ol style="list-style-type: none"> 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 N25°W – S25°E and dip towards NE-70°. 						

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 : Nil

b. **GEOLOGICAL RESERVES:**
Top Soil (Gravel):
 The Thickness of Top soil in this area is 3.0m and the total volume of topsoil (gravel) will be 89847m³.
Rough Stone :
 The Geological Reserve is estimated as 1644538m³ respectively, at the rate of 100% Recovery upto the permissible depth. The Geological reserve of Rough stone and Top soil(Gravel) is calculated upto a depth of 59m(3m top soil(gravel) + 56m Rough Stone). Surface Ground Level Above height is 5m and Surface Ground Level Below depth is 54m.

GEOLOGICAL RESERVES							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Geological Reserve in Cu.m(100%)	Topsoil (Gravel) in Cu.m.
XY-AB	I	120	116	3			41760
	II	120	116	7	97440	97440	
	III	120	116	7	97440	97440	
	IV	120	116	7	97440	97440	
	V	120	116	7	97440	97440	
	VI	120	116	7	97440	97440	
	VII	120	116	7	97440	97440	
	VIII	120	116	7	97440	97440	
	IX	120	116	7	97440	97440	
Total=					779520	779520	41760

XY-CD	I	117	137	3			
	II	83	137	7	79597		
	III	117	137	7	112203		
	IV	117	137	7	112203		
	V	117	137	7	112203		
	VI	117	137	7	112203		
	VII	117	137	7	112203		
	VIII	117	137	7	112203		
	IX	117	137	7	112203		
Total=					865018	865018	48087
Grand Total=					1644538	1644538	89847



c. **MINEABLE RESERVES:**

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

Top Soil (Gravel): The Thickness of Top soil in this area is 3.0m and the total volume of topsoil(gravel) will be 71190m³.

Rough Stone :

The mineable reserves and the recoverable reserves are 780843m³ respectively, at the rate of 100% Recovery upto the permissible depth The Mineable reserve of Rough stone and Top soil(Gravel) is calculated upto a depth of 59m(3m top soil(gravel) + 56m Rough Stone). Surface Ground Level Above height is 5m and Surface Ground Level Below depth is 54m.

MINEABLE RESERVES							
Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) Cu.m.
XY-AB	I	110	99	3			32670
	II	109	97	7	74011	74011	
	III	104	87	7	63336	63336	
	IV	99	77	7	53361	53361	
	V	94	67	7	44086	44086	
	VI	89	57	7	35511	35511	
	VII	84	47	7	27636	27636	
	VIII	79	37	7	20461	20461	
	IX	74	27	7	13986	13986	
Total=					332388	332388	32670

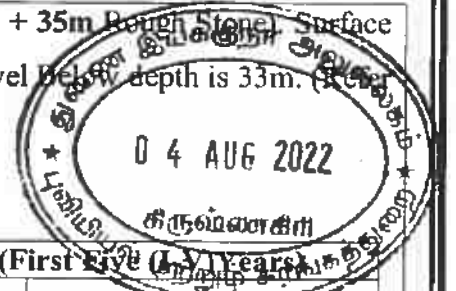
XY-CD	I	107	120	3			
	II	83	118	7	68558	68558	38520
	III	106	113	7	83846	83846	
	IV	101	103	7	72821	72821	
	V	96	93	7	62496	62496	04 AUG 2022
	VI	91	83	7	52871	52871	
	VII	86	73	7	43946	43946	
	VIII	81	63	7	35721	35721	
	IX	76	53	7	28196	28196	
Total=					448455	448455	38520
Grand Total=					780843	780843	71190

6.0 MINING:

6.1	Method of Mining	:	<ol style="list-style-type: none"> Opencast method of semi mechanized mining is adopted to extract Rough Stone. 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	:	<p>Bench height = 7mts.</p> <p>Bench width = 5mts.</p>
6.4	Details of Overburden / Mineral Production proposed for Ten year	:	<p>Top Soil(Gravel)/ Overburden production details follows:</p> <p>The entire lease area is covered 3.0m of Top Soil(Gravel) and the estimated quantity of Top soil(Gravel) is 71190m³. 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.</p>
<p>Year wise reserves calculations :</p> <p>Rough stone production First Five Years details as follows:</p> <p>The proposed rate of production of Rough Stone is estimated as 575386m³ for first five (I-V) years. The average proposed rate of production of Rough Stone is about 115077m³ per year at the rate of 100% recovery upto the permissible depth.</p>			

Reserves depth is Calculated upto 38m (3m top soil(gravel) + 35m Rough Stone). Surface Ground Level Above height is 5m and Surface Ground Level Below depth is 33m. (Refer Drawing Plate No.IV-A1-Year wise Sections).

Proposed Production of Ten Years.



YEARWISE DEVELOPMENT AND PRODUCTION (First Five (I-V) Years)

Year	Section	Bench	L (m)	W (m)	D (m)	Volume in (Cu.m.)	Recoverable Reserve Cu.m(100%)	Topsoil (Gravel) in Cu.m.
I-YEAR	XY-AB	I	110	99	3			32670
		II	109	97	7	74011	74011	
	XY-CD	I	107	120	3			38520
		II	83	118	7	68558	68558	
II-YEAR	XY-AB	III	104	87	7	63336	63336	
	XY-CD	III	106	113	7	83846	83846	
III-YEAR	XY-AB	IV	99	77	7	53361	53361	
	XY-CD	IV	101	103	7	72821	72821	
IV-YEAR	XY-AB	V	94	67	7	44086	44086	
	XY-CD	V	96	93	7	62496	62496	
V-YEAR	XY-AB	VI	91	83	7	52871	52871	
Total(I-V Years) =						575386	575386	71190

Rough stone production Second Five Years details as follows:

The proposed rate of production of **Rough Stone** is estimated as **205457m³** for Second Five (VI-X) years. The average proposed rate of production of **Rough Stone** is about **41091m³** per year at the rate of 100% recovery upto the permissible depth. Reserves Calculated upto **28m** Rough Stone. (Refer Drawing Plate No.IV-B1-Year wise Sections).

YEARWISE DEVELOPMENT AND PRODUCTION (Second Five (VI-X)Years)

Year	Section	Bench	L (m)	W (m)	D (m)	Volume (Cu.m.)	Recoverable Reserve Cu.m(100%)
VI-YEAR	XY-AB	VI	89	57	7	35511	35511
VII-YEAR	XY-AB	VII	84	47	7	27636	27636
VIII-YEAR	XY-CD	VII	86	73	7	43946	43946
IX-YEAR	XY-AB	VIII	79	37	7	20461	20461
	XY-CD	VIII	81	63	7	35721	35721
X-YEAR	XY-AB	IX	74	27	7	13986	13986
	XY-CD	IX	76	53	7	28196	28196
TOTAL (VI-X Years) =						205457	205457
Grand Total (I-X Years) =						780843	780843

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.										
				<table border="1"> <thead> <tr> <th>Type</th> <th>Nos</th> <th>Dia of hole</th> <th>Size / Capacity</th> <th>Make</th> <th>Motive power</th> <th>H.P.</th> </tr> </thead> <tbody> <tr> <td>Jack Hammer</td> <td>6</td> <td>25.5 mm</td> <td>Hand held</td> <td>Atlas copco</td> <td>Diesel</td> <td>60</td> </tr> </tbody> </table>	Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P.	Jack Hammer	6	25.5 mm
Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P.								
Jack Hammer	6	25.5 mm	Hand held	Atlas copco	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.								
				<table border="1"> <thead> <tr> <th>Type</th> <th>Nos</th> <th>Bucket Capacity (MT)</th> <th>Make</th> <th>Motive power</th> <th>H.P.</th> </tr> </thead> <tbody> <tr> <td>Hydraulic excavator</td> <td>2</td> <td>1.2 M³</td> <td>L&T or Ex200</td> <td>Diesel</td> <td>120</td> </tr> </tbody> </table>	Type	Nos	Bucket Capacity (MT)	Make	Motive power	H.P.	Hydraulic excavator	2
Type	Nos	Bucket Capacity (MT)	Make	Motive power	H.P.							
Hydraulic excavator	2	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								
				<table border="1"> <thead> <tr> <th>Type</th> <th>Nos</th> <th>Size / Capacity</th> <th>Make</th> <th>Motive power</th> <th>H.P.</th> </tr> </thead> <tbody> <tr> <td>Tipper</td> <td>2</td> <td>10 M.T</td> <td>Ashok Leyland</td> <td>Diesel</td> <td>110</td> </tr> </tbody> </table>	Type	Nos	Size / Capacity	Make	Motive power	H.P.	Tipper	2
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 **636542 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 = 60m³ of Top soil

For 71190m³ = 71190/60

= 1187 hours

Diesel consumption 1187 working hours = 1187 x 10 litres

Total diesel consumption = 11870 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 780843m³ = 780843 / 20 = 39042 hours

Diesel consume 39042 working hours = 39042 hours x 16 litres = 624672 litres

Total diesel consumption = 624672 litres of HSD will be utilized for Rough Stone.

Total diesel consumption is around (Top soil (Gravel) 11870 Litres + Rough Stone 624672 Litres) = 636542 litres of HSD for the entire period of life.



6.6 Disposal of Overburden : The estimated quantity of Top soil(Gravel) is 71190m³. 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.

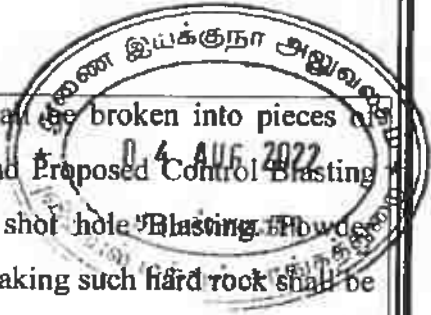
6.7 Brief Note on Conceptual Mining Plan for the entire lease period : Conceptual Mining Plan is prepared with an object of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, etc., Average Ultimate Pit dimension in given as Under,

<p>ULTIMATE PIT DIMENSIONS</p> <p>217.0m(L) X 109.0m(W)Avg X 54.0m(D)</p>

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:



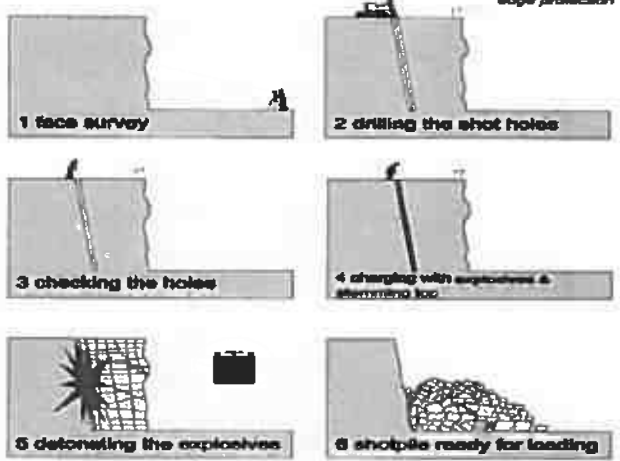
7.1 Proposed Control Blasting Pattern

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° 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	:	260.28M³.

ROCK BLASTING

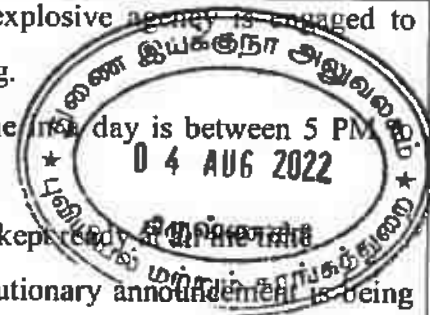


7.2	Types of Explosives	Following explosives are recommended for efficient Proposed Control Blasting with safe practices. <table border="1" data-bbox="722 264 1453 607"> <thead> <tr> <th>S. No</th> <th>Description</th> <th>Class Division</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Slurry</td> <td>Class - 3</td> <td>Nitro Compound 200 x 200</td> </tr> <tr> <td>2.</td> <td>Detonators</td> <td>Class - 3</td> <td>Ordinary (OD & ED)</td> </tr> <tr> <td>3.</td> <td>Safety fuse</td> <td>Class - 6</td> <td>Blue sump fuse coils of 10mts each</td> </tr> </tbody> </table>	S. No	Description	Class Division	Size	1.	Slurry	Class - 3	Nitro Compound 200 x 200	2.	Detonators	Class - 3	Ordinary (OD & ED)	3.	Safety fuse	Class - 6	Blue sump fuse coils of 10mts each
S. No	Description	Class Division	Size															
1.	Slurry	Class - 3	Nitro Compound 200 x 200															
2.	Detonators	Class - 3	Ordinary (OD & ED)															
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. <ol style="list-style-type: none"> 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.
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7.4	Storage of Explosives and safety measures to be taken while Proposed Control Blasting.	<ol style="list-style-type: none"> 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.
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		<ol style="list-style-type: none"> 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. 6. Necessary precautionary announcement is being carried out before the blasting operation.
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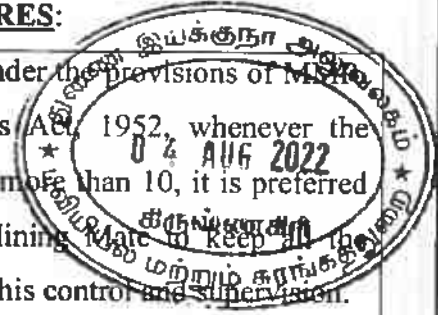
8.0 MINE DRAINAGE:

8.1	Depth of Water table	: The ground water table is reported as 88m below ground level in nearby open wells and bore wells of this area. Mining reserves depth is calculated upto 59m (Surface Ground Level Above height 5m & Surface Ground Level Below depth 54m). 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	Goolisandram	2.0kms	1500
			East	Pothasandhira	2.5kms	250
			South	Nagappan Agraharam	1.5kms	570
West	Agraharam	3.0kms	310			
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- Kelamangalam = 18.6 Kms Quarry site is located in Northwestern side at a distance of 5.3 km. from Kelamangalam 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 Sanamavu and the applied area = 6.4kms Distance from Cauvery North Wild life Sanctuary, Udedurgam = 12.8kms.			
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 12.8 kms from the lease area.			
9.9	Any Other Structures	:	Nil			

10.0 EMPLOYMENT POTENTIAL & WELFARE MEASURES:



10.1	Employment Potential (Management & Supervisory personal)	<p>1. As per Mines safety under the provisions of MSHA 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.</p> <p>2. The following man power is proposed for quarrying Rough Stone during the Ten years period to achieve the proposed production to the provisions of the Government norms.</p> <table border="1" data-bbox="758 705 1300 1086"> <tr> <td>1.</td> <td>Skilled</td> <td>Operator</td> <td>2 No.</td> </tr> <tr> <td></td> <td></td> <td>Mechanic</td> <td>1 No.</td> </tr> <tr> <td></td> <td></td> <td>Blaster/Mat</td> <td>1 No.</td> </tr> <tr> <td>2.</td> <td>Semi – skilled</td> <td>Driver</td> <td>2 Nos</td> </tr> <tr> <td>3.</td> <td>Unskilled</td> <td>Musdoor / Labours</td> <td>5 Nos</td> </tr> <tr> <td></td> <td></td> <td>Cleaners</td> <td>3Nos</td> </tr> <tr> <td></td> <td></td> <td>Office Boy</td> <td>1No</td> </tr> <tr> <td>4.</td> <td>Management & Supervisory staff</td> <td></td> <td>3No.</td> </tr> <tr> <td></td> <td>Total =</td> <td></td> <td>18Nos</td> </tr> </table>	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
1.	Skilled	Operator	2 No.																																			
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		Cleaners	3Nos																																			
		Office Boy	1No																																			
4.	Management & Supervisory staff		3No.																																			
	Total =		18Nos																																			
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.																																				

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

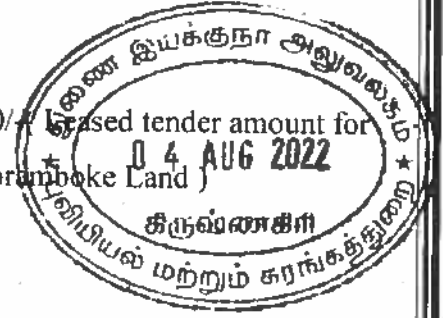
11.0 ENVIRONMENTAL MANAGEMENT PLAN:

11.1	Existing Land Use Pattern	:	<p>The existing land use pattern is given as under.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Sl. No.</th> <th style="width: 35%;">Land Use</th> <th style="width: 20%;">Present Area (Hect)</th> <th style="width: 40%;">Area in use during the quarrying period (Hect)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Area under quarrying</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">2.36.00</td> </tr> <tr> <td>2.</td> <td>Infrastructure</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">0.01.00</td> </tr> <tr> <td>3.</td> <td>Roads</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">0.01.00</td> </tr> <tr> <td>4.</td> <td>Green Belt</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">0.62.00</td> </tr> <tr> <td>5.</td> <td>Unutilized Area</td> <td style="text-align: center;">3.00.00</td> <td style="text-align: center;">Nil</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total =</td> <td style="text-align: center;">3.00.00Ha</td> <td style="text-align: center;">3.00.00Ha</td> </tr> </tbody> </table>	Sl. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)	1.	Area under quarrying	Nil	2.36.00	2.	Infrastructure	Nil	0.01.00	3.	Roads	Nil	0.01.00	4.	Green Belt	Nil	0.62.00	5.	Unutilized Area	3.00.00	Nil	Total =		3.00.00Ha	3.00.00Ha
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Total =		3.00.00Ha	3.00.00Ha																												
11.2	Water Regime	:	Water table in this area is noticed at a depth of 88m and presently, the quarrying of Rough Stone Mining reserve is calculated upto 59m (Surface Ground Level Above Height 5m & Surface Ground Level Below Depth 54m). 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°C during winter and to a maximum of 48°C during the summer.																				
11.5	Human Settlement	: The nearest habitations with the population is given.																				
		<table border="1"> <thead> <tr> <th data-bbox="574 674 790 728">Direction</th> <th data-bbox="790 674 1125 728">Village</th> <th data-bbox="1125 674 1284 728">Distance in Kms</th> <th data-bbox="1284 674 1474 728">Population</th> </tr> </thead> <tbody> <tr> <td data-bbox="574 728 790 772">North</td> <td data-bbox="790 728 1125 772">Goolisandram</td> <td data-bbox="1125 728 1284 772">1.0kms</td> <td data-bbox="1284 728 1474 772">185</td> </tr> <tr> <td data-bbox="574 772 790 817">East</td> <td data-bbox="790 772 1125 817">Pothasandhira</td> <td data-bbox="1125 772 1284 817">2.5kms</td> <td data-bbox="1284 772 1474 817">250</td> </tr> <tr> <td data-bbox="574 817 790 862">South</td> <td data-bbox="790 817 1125 862">Nagappan Agraharam</td> <td data-bbox="1125 817 1284 862">1.5kms</td> <td data-bbox="1284 817 1474 862">370</td> </tr> <tr> <td data-bbox="574 862 790 907">West</td> <td data-bbox="790 862 1125 907">Agraharam</td> <td data-bbox="1125 862 1284 907">3.0kms</td> <td data-bbox="1284 862 1474 907">310</td> </tr> </tbody> </table>	Direction	Village	Distance in Kms	Population	North	Goolisandram	1.0kms	185	East	Pothasandhira	2.5kms	250	South	Nagappan Agraharam	1.5kms	370	West	Agraharam	3.0kms	310
Direction	Village	Distance in Kms	Population																			
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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 Ten years	: Factors to be considered for EIA are, <ol style="list-style-type: none"> 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 area. Removal of fertile soil does not arise. Proposed usage of land for the Ten years shall be less than 3.00.00 Ha. A forestation 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	:	<ol style="list-style-type: none"> 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 59m (Surface Ground Level Above Height 5m & Surface Ground Level Below depth 54m). The mined out area will be fenced on top of open cast working with SI 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.

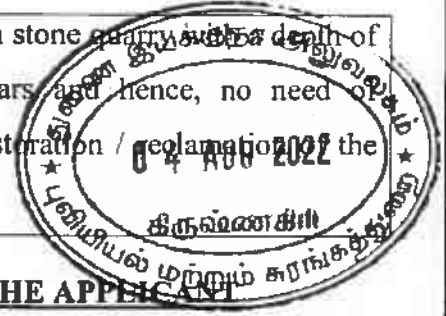
11.12	Proposed Financial Estimate / Budget for (EMP) Environment Management	
	A. Fixed Asset Cost:	
	Land Cost	: Rs. 4,61,00,000/-
	Labour Shed	: Rs. 1,40,000/-
	Sanitary Facility	: Rs. 70,000/-
	Fencing cost	: Rs. 80,000/-
	Total=	: Rs.4,63,90,000/-
	B. Operational Cost:	
	Machinery cost	: Rs.30,00,000/-
	C. EMP Cost:	
	1. Drinking water facility	: Rs. 1,10,000/-
	2. Safety kits	: Rs. 75,000/-
	3. Water sprinkling	: Rs. 50,000/-
	4. Afforestation	: Rs. 25,000/-
	5. Water quality test	: Rs. 30,000/-
	6. Air quality test	: Rs. 30,000/-
	7. Noise/vibration test	: Rs. 30,000/-
	Total=	: Rs. 3,50,000/-
	Total Project cost(A+B+C)	: Rs.4,97,40,000/-



12.0 MINE CLOSURE PLAN:

12.1	Steps proposed for phased restoration, reclamation of already mined out area.	: The present mining is proposed to 59m (Surface Ground Level Above Height 5m & Surface Ground Level Below Depth 54m). 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	: It is a fresh Rough stone quarry with a depth of 59m for Ten years and hence, no need mitigation and restoration / reclamation the applied lease area.
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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 Ten Years.

This Mining Plan is approved based on guidelines / instruction issued and in corporation of the particulars specified in the letter Roc. No. 536/2022 Dated 04.08.2022 of the Deputy Director of Geology and Mining, Krishnagiri and subject to further fulfillment of the conditions laid down under Tamil Nadu Minor Mineral Concession Rules, 1959 and Minor Mineral Conservation and Development Rule 2010.

**DEPUTY DIRECTOR,
Geology and Mining,
Collectorate, Krishnagiri.**

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

This Mining Plan is approved subject to the conditions / Stipulation indicated in the Mining Plan Approval
Letter Roc. No. 536/2022 Dated 04.8.2022

2. கிருஷ்ணகிரி மாவட்டம், ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம் அரசு புல எண்.220/1(பகுதி-2) விஸ்.3.00.0 ஹெக்டேர் பரப்பில் அமைந்துள்ள சாதாரண கற்குவாரியை டெண்டர் / பொது ஏலத்திற்கு கொண்டு வர உரிய நில இருப்பு அறிக்கை வருவாய் கோட்டாட்சியரிடம் கோரப்பட்டதில், ஓசூர் 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, ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம் அரசு புறம்போக்கு தீ.ஏ.த.தரிசு புல எண்.220/1(பகுதி-2) விஸ்.3.00.0 ஹெக்டேர் பரப்பு பூமியினை குத்தகை உரிமம் வழங்கிட விதிகளின்படி மேற்கண்ட புலம் தகுதிலாய்ந்தது 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.(08), ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.தரிசு) புல எண்.220/1(பகுதி-2)-ல் 3.00.0 ஹெக்டேர் பரப்பில் உள்ள கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.நித்தினரெட்டி ஏலத்தில் கோரிய தொகை ரூ.4,61,00,000/- 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.

6. எனவே, ஏலதாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் கோரிய திரு.நித்தினரெட்டி என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி நபருக்கு ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.தரிசு) புல எண்.220/1(பகுதி-2)-ல் 3.00.0 ஹெக்டேர் பரப்பு புலத்தில் பத்து (10) ஆண்டுகளுக்கு குவாரி உரிமம் வழங்க

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



நிபந்தனைகள்:

- 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.
- அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர், அரசு புறம்போக்கு புலங்களுக்கு 10 மீட்டர் மற்றும் இதர நிலையான அமைப்புகளுக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரிப் பணி மேற்கொள்ள வேண்டும்.
- விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க பரிந்துரைக்கப்பட்ட புல வரைபடம்.

ஓம்/- வி.ஜெய சந்திர பாணு ரெட்டி
மாவட்ட ஆட்சித் தலைவர்,
கிருஷ்ணகிரி.

// உண்மை நகல்// உத்தரவுபடி//

(Handwritten signature)
24.05.22
மாவட்ட ஆட்சியருக்காக,
கிருஷ்ணகிரி

பெறுநர்:

திரு.நித்தினர்ரெட்டி,
த/பெ.சந்திர ரெட்டி,
எண்.83, அவதானஹள்ளி - கிராமம்,
மர்சூர்-அஞ்சல், அனேக்கல் வட்டம்,
பெங்களூர் மாவட்டம்.

(Handwritten signature)

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

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

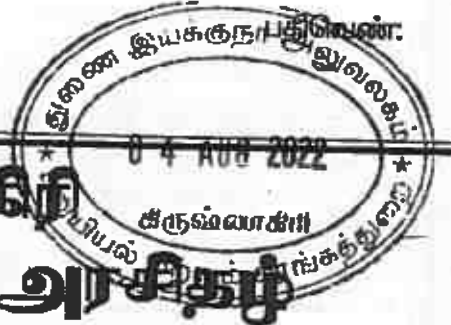
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2022



கிருஷ்ணகிரி
மாவட்ட அரசிதழ்

சிறப்பு வெளியீடு

ஆணையின்படி வெளியிடப்பட்டது



கிருஷ்ணகிரி, மார்ச் 14, 2022
[பிலவ, மாசி 30 - திருவள்ளூர் ஆண்டு 2053]

[எண் 15]

மாவட்ட ஆட்சியர் அறிவிக்கை

[ந. க. எண். 180/2022(கனிமம்), நாள்: 10.03.2022]

சாதாரண கற்குவாசி 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 கற்குவாசிகளிலிருந்து 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 கற்குவாசிகளிலிருந்து 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 புலியல் மற்றும் சுரங்கத்துறை துணை இயக்குநர் அலுவலகம், கிருஷ்ணகிரி மாவட்டத்திலுள்ள அனைத்து சார் ஆட்சியர்/ வருவாய் கோட்டாட்சியர், வட்டாட்சியர் மற்றும் ஊராட்சி ஒன்றிய ஆணையர் அலுவலகங்களின் தகவல் பலகையில் விளம்பரம் செய்யப்படும்.

5. அட்டவணையில் குறிப்பிட்டுள்ள குவாரிகளின் குத்தகை காலமானது குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்பட்ட நாளிலிருந்து ஏற்கனவே குவாரி குத்தகை வழங்கப்பட்டு குத்தகை காலம் முடிவற்ற 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, புவிப்பியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி என்ற விலாசமிட்டு நேரிலோ அல்லது ஒப்புரை பெறத்தக்க பதிவஞ்சல் மூலமாகவோ மாவட்ட ஆட்சியர் அலுவலக வளாக தரைதளத்தில் அறை எண்.30ல் உள்ள புவிப்பியல் 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 ஆலோசகியருக்கும் 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 உரிய 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 உரிமை 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.

13. ஒப்பந்தப்புள்ளி விண்ணப்பம் அனுப்புவதற்கு முன்/ ஏலத்தில் கலந்து கொள்ளுதற்கு முன் இம்மாதிரி அனுப்பும் அறிவிக்கையுடன் இணைக்கப்பட்டுள்ள மட்டியவில் கண்ட சம்பந்தப்பட்ட குவாரிகளை குவாரிகளை விண்ணப்பத்தார் தனது சொந்த செலவிலேயே நேரில் பார்க்கப்பட்டு பாதை வசதி கனிமத்தின் தரம் மற்றும் கனிமத்தின் இருப்புக் குறித்து 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 இருப்புக் குறித்து எவ்வித தாவரமும் செய்ய குத்தகைதாரருக்கு உரிமை கிடைக்காது.

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 அதிகப்பட்சம் 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 முடிவற்ற சாதாரண கற்குவாரி இளங்களுக்கு 05 ஆண்டுகளும் புதியதாக சேர்க்கப்பட்டுள்ள சாதாரண கற்குவாரி இளங்களுக்கு (Virgin quarry) 10 ஆண்டுகளும் ஆகும். குத்தகை ஒப்பந்தப்பத்திரத்தில் குறிப்பிடப்படும் இறுதி நாளில் குத்தகை காலம் முடிவடையும், குத்தகை காலம் எக்காரணத்தையுடனும் நீடிக்கப்பட 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, புவிமியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களின் பதவியின் பெயரில் பெற்று அல்லது அரசு கருவூலத்தில் செலுத்திய அசல் சலான் இணைக்க வேண்டும்.

(ஆ) பிணை வைப்பத்தொகை (Earnest money deposit) ரூ.25000/- (ரூபாய் இருபத்தைந்தாயிரம் மட்டும்)க்கான கேட்பு வரைவோலை ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் துணை இயக்குநர், புவிமியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களின் பதவியின் பெயரில் பெற்று இணைக்க வேண்டும். தனிநபர் பெயருக்கு எடுத்து கொடுக்கப்படும் வங்கி வரைவோலை ஏற்றுக்கொள்ளப்படமாட்டாது குத்தகை உரிமம் வழங்கப்படுவவர் 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, புவிமியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களின் பதவியின் பெயரில் ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் பெற்று இணைக்க வேண்டும்.

(ஈ) மாவட்ட வாரியாக கனிம வாரியாக விண்ணப்பதாரர் / ஏலதாரர் நேரடியாகவோ அல்லது பங்குதாரராகவோ தொடர்புள்ள குவாரிகள் பற்றிய கீழ்க்கண்ட விவரங்கள் அல்லது ஆணையறுதி ஆவணம் (அபிடவிட்) மூலம் தெரிவிக்க வேண்டும்.

1. விண்ணப்பதாரருக்கு கனிம குத்தகையுள்ள மாவட்ட ஆட்சியரால் வழங்கப்பட்ட செல்லத்தக்க சுரங்கவரி நிலுவை இல்லா சான்றிதழ் அல்லது சுரங்கவரி நிலுவை இல்லை என்பதற்கான ஆணையறுதி வாக்குமூலம் இணைக்கப்படவேண்டும்.
2. வருமான வரி செலுத்திய சான்றிதழ் அல்லது வருமானவரி பாக்கியில்லை என்பதற்கான ஆணையறுதி வாக்குமூலம் இணைக்கப்படவேண்டும்.
3. மற்றும்,
 - i) அனுபவத்திலிருக்கும் குவாரி குத்தகை அனுமதி புற்றி விவரம்
 - ii) ஏற்கனவே விண்ணப்பித்து இதுவரை அனுமதி வழங்கப்படாத குவாரி குத்தகை அனுமதி புற்றி விவரம்.
 - iii) தற்போது உடனிகழ்வாக விண்ணப்பிக்கும் குவாரி குத்தகை அனுமதி விவரம்
4. மேற்கண்ட ஆணையறுதி 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 விண்ணப்பப்படிவம், 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 ஏலத்தொலையில் 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 ஒப்பதல் கடிதம் அன்றைய தினமே வழங்கப்படும். தபால் மூலம் பெறப்படும் விண்ணப்பத்திற்கு ஒப்பதல் 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 பிரகரிக்கப்பட்டுள்ள குவாரிகளின் மட்டியலில் உள்ள வரிசை எண் ஆகியவற்றை தவறாமல் குறிப்பிட வேண்டும்.

- 7) மாவட்ட ஆட்சியரால் அல்லது அவரால் அங்கீகாரம் வழங்கப்பட்ட அலுவலரும் உள்ள வருகை பதிவேட்டில் விண்ணப்பதாரர்கள் / ஏலதாரர்கள் கையொப்பமிட்ட பின்னரே ஏல அறைக்குள் அனுமதிக்கப்படுவார்கள்.
- 8) ஏலம் மற்றும் ஒப்பந்தப்புள்ளியில் (டெண்டர்) கலந்து கொண்டவர் செலுத்தும் விண்ணப்பத்தின் மூலக் 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 (அபிட்விட்) தாக்கல் செய்வதின் மீதில் ஏலத்தில் கலந்து கொள்ள அனுமதிக்கப்படுவார்கள்.
- 9) ஒப்பந்தப்புள்ளி விண்ணப்பப்படிவத்தில் மனு செய்யும் நபர்கள் தங்கள் மனு செய்யும் குவாரிக்கு குத்தகை தொகையாக செலுத்த விரும்பும் தொகையை விண்ணப்பத்தில் குறிப்பிடாமல் இருந்தாலோ அல்லது விண்ணப்ப கட்டணம், பிணைவைப்பத் தொகை, அதிகபட்சமாக குறிப்பிடும் குத்தகை தொகையின் 10% தொகை ஆகியவற்றிற்கான வங்கி வரைவோலைகளை விண்ணப்பத்துடன் இணைக்காமல் இருந்தாலோ, விண்ணப்பத்தாளில் விண்ணப்பதாரர் தன் கையொப்பம் செய்யாமல் இருந்தாலோ 1959 ஆம் வருடத்திய தமிழ்நாடு சிறுகணி சலுகை விதிகளில் கூறப்பட்ட சரங்கவரி 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 ஒப்பந்தப்புள்ளிகள் திறக்கும் சமயத்தில் விண்ணப்பதாரர் ஆணையில் இருந்தால் மட்டும் விண்ணப்பதாரரிடம் தக்க ஒப்பதல் பெற்று வங்கிவரைவோலை திருப்பி வழங்கப்படும். ஒப்பந்தப்புள்ளி திறக்கும் சமயத்தில் ஆணையில் இல்லாத நபருக்கு பதிலுஞ்சல் மூலம் வங்கி வரைவோலைகள் தனியே அனுப்பி வைக்கப்படும்.
- 10) ஒவ்வொரு குவாரிக்கும் பொது ஏலம் நடத்தி முடிந்த பின்னர் சம்பந்தப்பட்ட குவாரிக்கான டெண்டர் விண்ணப்பங்கள் வருகை தந்திருக்கும் சம்பந்தப்பட்ட டெண்டர் விண்ணப்பதாரர்கள் மற்றும் ஏலதாரர்கள் அல்லது அவர்களது அதிகாரம் பெற்ற நபர்கள் முன்மலையில் சம்பந்தப்பட்ட அதிகாரிகளால் திறக்கப்படும் ஒப்பந்தப்புள்ளி (டெண்டர்) திறக்கும் நேரத்தில் விண்ணப்பதாரர் அல்லது ஏலதாரர் அங்கீகாரம் பெற்ற நபர் ஆணையில் 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 குறிப்பிட வராக அறிவிக்கப்படுவார். அதிகப்பட்சத் தொகைக்கு டெண்டர்/ஏலம் மூலம் கேட்ட நபர் என உறுதி செய்யப்பட்டவுடன், டெண்டர்/ ஏலம்

கேட்ட நபர் அவரால் அதிகபட்சமாக கோரப்பட்ட தொகையில் பத்து சதவிகித தொகையினை கேட்பு வணரவேலையாகவோ / மணமாகவோ உடனடியாக செலுத்திவேண்டும். அவ்வாறு செலுத்தக் தவறும் பட்சத்தில் அவரது ஏலம் / டெண்டர் ரத்து செய்யப்பட்டு அவருக்கு அடுத்தபடியாக அதிகபட்சத்தொகை கேட்ட நபருக்கு வாய்ப்பளிக்கப்படும். அவரும் பத்து சதவிகித 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 பிணைவைப்புகள்தொகை திரும்ப தரப்படும். ஏலம் / டெண்டர் உறுதி செய்யப்பட்ட நபர் மீதமுள்ள 90 சதவிகித தொகையினை பதினாந்து (15) தினங்களுக்குள் செலுத்திவிட வேண்டும், தவறும் பட்சத்தில் ஏலம் / டெண்டர் ரத்து செய்யப்பட்டு அவர் செலுத்திய அனைத்து தொகைகளும் புரிபுதல் 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 புலியியல் 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 சீனியரேஜ் தொகையின் மீது 10 சதவிகித தொகையை கிருஷ்ணகிரி மாவட்ட கனிம அறக்கட்டளை நிதியாக கிருஷ்ணகிரி பாரத மாநில வங்கி (State Bank of India) கணக்கு எண்.37243080996-ல் செலவன் மூலம் செலுத்த வேண்டும்.
- (v) அரசாணை எண்.23 தொழில் (எம்.எம்.சி.1) துறை நாள்:23.02.2022-ன்படி பசுமை வரியாக உள்மாநிலங்களில் கனிமம் கொண்டு செல்வதற்கு சீனியரேஜ் தொகைக்கு 10 சதவிகிதம் அல்லது வெளி மாநிலங்களுக்கு கனிமம் கொண்டு செல்வதற்கு சீனியரேஜ் தொகைக்கு 20 சதவிகிதம் 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 (புலியியல் மற்றும் சுரங்கத்துறை) கருதினால், அந்த டெண்டர் மனுவாரருக்கு குவாரி குத்தகை வழங்க உதவி / துணை இயக்குநர் (புலியியல் மற்றும் சுரங்கத்துறை) ஒப்புதல் அளிக்கலாம். டெண்டர் தொகை அரசுக்கு ஆதாயமானதல்ல என்று உதவி / துணை இயக்குநர் (புலியியல் மற்றும் சுரங்கத்துறை) கருதும் பட்சத்தில், மனுவைத் தள்ளாடி செய்து ஆணையிடப்பட்டு மறு ஏலத்தின் மூலம் குவாரி குத்தகை வழங்க மேலநடவடிக்கை எடுக்க மாவட்ட ஆட்சியர்க்கு அதிகாரம் உண்டு.



14) மாண்புமிகு இந்திய உச்சநீதிமன்றம் வழக்கு எண் ஐ.ஏ 12-13/2012 எஸ்.எல்.வி (சி) எண்.19528 - 19529/2009 ஆகியவற்றின் மீது 27.02.2012 அன்று வழங்கியுள்ள ஆணைகளின்படியும் இந்திய அரசு சுற்றுச் சூழல் மற்றும் வனத்துறை குறிப்பாணை எண். எல்.11011/47/2011 - IA. II(M) நாள்: 18.05.2012 ஆகியும், இந்திய அரசு சுற்றுச் சூழல் மற்றும் வனத்துறை குறிப்பாணை எண். (எம்எஸ்)எண். 79, தொழில் (எம்எம்சி1) துறை நாள்: 06.04.2015ன்படி, 1959 ஆம் ஆண்டு வகுத்திய தமிழ்நாடு சிறுவகை சலுகை விதிகளில் திருத்தம் செய்யப்பட்டு சேர்க்கப்பட்ட விதிகள் எண். 41 மற்றும் 42 ஆகியவற்றின் கீழ், அனைத்து சிறுகனிம குவாரிகளுக்கும் குவாரி குத்தகை வழங்கும் முன்பு புவிமியல் மற்றும் சுரங்கத் துறை துணை இயக்குநரால் அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் இந்திய அரசின் சுற்றுச்சூழல், வனம் மற்றும் பருவநிலை மாற்றம் அமைச்சகத்தால் வழங்கப்படும், மாநில சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் / இசைவு ஆகியவற்றை பெற்று சமர்ப்பித்த பின்பு மட்டுமே குவாரி குத்தகை வழங்க முடியும். குவாரி பணி தொடங்குவதற்கு முன்பாக தமிழ்நாடு மாசு கட்டுப்பாட்டு வாரியத்தின் இசைவினை பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி பணி தொடங்க அனுமதிக்கப்படும்.

15) அதிகப்பட்சத் 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 சுற்றுச்சூழல் 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 புவிமியல் மற்றும் சுரங்கத்துறை துணை இயக்குநரிடம் அங்கீகாரம் பெற சமர்ப்பிக்க வேண்டும்.

(ஆ) மேற்கண்ட மனுதாரர் கிருஷ்ணகிரி புவிமியல் மற்றும் சுரங்கத்துறை துணை இயக்குநரால் அங்கீகாரம் வழங்கப்பட்ட சுரங்கத்திட்டத்தை இந்திய அரசு சுற்றுச்சூழல், வனம் மற்றும் பருவநிலை மாற்றம் அமைச்சகத்தின் மாநில சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் முன்பு சமர்ப்பித்து தடையின்மை சான்று கோரி விண்ணப்பித்து தடையின்மை சான்றினை பெற்று சமர்ப்பிக்க வேண்டும்.

(இ) காவேரி வடக்கு வனவிலங்கு சரணாலயம், தேசிய பூங்கா, யானைகளின் வலசை பாதை மற்றும் கம்பு 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 சமர்ப்பித்த பின்பு விதிகளின்படி மனுதாரருக்கு குவாரி குத்தகை வழங்கி ஆணையிடப்படும் அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் தமிழ்நாடு மாநில சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/ இந்திய அரசு சுற்றுச்சூழல், வனம் மற்றும் பருவநிலை மாற்றம் அமைச்சகத்தின் தடையின்மை சான்று ஆகியவற்றை குறிப்பிட்ட காலக்கெடுவிற்குள் சமர்ப்பிக்க தவறினால் மனுதாரருக்கு மாவட்ட ஆட்சியர் முன்பு விசாரணைக்கு ஆணை 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, புவிமியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களிடம் சமர்ப்பிக்க வேண்டும்.

(அ) விண்ணப்பதாரரின் கையொப்பமிட்ட வரைவு குத்தகை ஒப்பந்தப்பத்திரம் மற்றும் வரைபடம்.

- (ஆ) அசல் குத்தகை ஒப்புத்தப்பத்திரம் தயார் செய்வதற்கு தேவையான நிதித்துறை 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 செய்யுமாறு அரசு கணக்கில் சேர்க்கப்படும்.
- 18) மேற்கண்ட ஆவணங்களை ஒப்படைத்து குவாரி குத்தகை ஒப்புத்த ஆவணம் நிறைவேற்றிய பின்பே குவாரிப்பணியை தொடங்க வேண்டும். குவாரி குத்தகை ஆவணம் நிறைவேற்றுமுன் குவாரிப்பணி செய்வது கண்டறியப்பட்டால் அது அனுமதியின்றி கனிமம் வெட்டிபெடுத்ததாக 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 அனுமதிச்சீட்டு பெற ஒவ்வொரு முறையும் செலுத்துகின்ற சீனியரிஜே தொகையின் மீது 10 சதவீத தொகையை கிருஷ்ணகிரி மாவட்ட கனிம அறக்கட்டளை நிதியாக கிருஷ்ணகிரி பாரத மாநில வங்கி (State Bank of India) கணக்கு எண்.37243080996-ல் செலவாக மூலம் செலுத்த வேண்டும். மேலும் கூடுதலாக அரசால் நிர்ணயிக்கப்பட்ட 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 புலியியல் மற்றும் கரங்கத்துறை, கிருஷ்ணகிரி அவர்களுக்கு தணிக்கைக்கு ஆஜர் செய்ய வேண்டும்.
- 21) குவாரிகளுக்கு அருகில் உள்ள போக்குவரத்து சாலைகள், கிராம சாலைகள் குடியிருப்பு பகுதிகள் வீடுகள், வண்டிப்பாதைகள், மின் மற்றும் தொலைபேசி கம்பிகள், டிரான்ஸ்மீட்டர்கள், 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 கரங்கங்கள் (மேம்படுத்துதல் மற்றும் முறைப்படுத்துதல்) சட்டம் 1957 மற்றும் இந்த அரசிதழில் குறிப்பிடப்பட்டுள்ள சிறப்பு நிபந்தனைகள் மற்றும் அரசால் அவ்வப்போது கொண்டுவரப்படும் ஆணைகளும் விதிகளும் கட்டுப்படுத்தும்.

- 23) இவ்விதிகளின்கீழ் வழங்கப்படும் குவாரிகளின் குத்தகை காலம் எக்காரணத்தைக் கொண்டும் குத்தகை வரவகப்பட்ட காலத்திற்கு மேல் நீட்டிக்கப்படவோ அல்லது குத்தகை காலம் பூர்த்திக்கப்பட்டனா மாட்டாது. குத்தகை காலம் முடிந்தபின் குத்தகைதாரர்கள் குத்தகைக்கு விடப்பட்ட பகுதிகளில் எவ்விதமான தரமையும் கொண்டடக் கூடாது. மேலும், குத்தகை காலம் முடிந்தபின் மேற்கண்ட புலத்தை அரசுக்கு திரும்ப ஒப்படைத்து அதற்கான விபரீதத்தை கிராம நிர்வாக அலுவலரிடம் பெற்று வட்டாட்சியர் வாயிலாக மாவட்ட ஆட்சியருக்கு தெரிவிக்க வேண்டும். சி.ரு.வ.ப.ச.கி.ரி. புவியியல் துறை மற்றும் சுரங்கத்துறை
- 24) 14 வயதுக்குட்பட்ட குழந்தை தொழிலாளர்களை குவாரிப்பணியில் ஈடுபடுத்தக்கூடாது மற்றும் சுரங்கத்துறை
- 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) செய்தித்தாள்கள் 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 ஏற்படுத்தியபின் புல எண் மற்றும் குவாரி செய்ய ஒதுக்கப்பட்ட பரப்புக்குறித்து எவ்வித தாவாலும் 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 துறை இயக்குநர் அலுவலகத்தில் உடன் ஒப்படைக்க வேண்டும்.
- 30) தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959-ன் விதி 36(1)ல் வரையறுக்கப்பட்டுள்ளவாறு அருகிலுள்ள குடியிருப்புகளுக்கு பாதுகாப்பு இடைவெளியாக 300 மீட்டரும் கிராம சாலைகளுக்கு 10 மீட்டரும் இதர சாலைகள் கட்டிடங்கள், வழிபாட்டு தலங்கள், மின்கம்பி பாதைகள், தொலைபேசி பாதைகள், புகைவண்டியாதைகள், டிரான்ஸ்பார்மர்கள், ஆறு, ஏரி, குளம், குட்டை மற்றும் இதர பொது சொத்துக்கள் ஆகியவற்றிற்கு பாதுகாப்பு இடைவெளியாக 50 மீட்டரும் விட்டு மீதமுள்ள இடத்திற்குள்ள்தான் குவாரிப்பணி செய்யப்படவேண்டும். புராதன சின்னங்களுக்கு தொல்லியல் துறையால் வரையறுக்கப்பட்டுள்ள பாதுகாப்பு இடைவெளி விட்டும் குவாரிப்பணி செய்ய வேண்டும். விதிகளின்படி தொல்லியல் சின்னங்களுக்கு 500 மீட்டர் பாதுகாப்பு இடைவெளி விட்டும், வளவிலங்கு சரணாலயம், தேசிய பூங்கா, யானைகளின் வலகை பாதை மற்றும் காப்புக்காடுகளுக்கு ஒரு கிலோ மீட்டர் பாதுகாப்பு இடைவெளிவிட்டும் குவாரி பணி செய்ய வேண்டும். பொதுமக்கள் உபயோகிக்கும் இடங்களான குடியிருப்புகள் மட்டா 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 சிறுகனிய 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 தேரிட்டால் 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, புவிமியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநர் அலுவலகத்தில் அரசு குறிப்பிட்ட படிவத்தில் அனுப்புணகச் சீட்டுக்களை அச்சிட்டு சமர்ப்பிக்க வேண்டும். குத்தகைதாரர் சிறுகனியம் எடுத்து செல்லும் வாகனத்துடன் அனுப்புணகச் சீட்டு கொடுத்து அனுப்ப வேண்டும். இந்நடைச்சீட்டை இரு பிரதிகள் அச்சிட்டு வரிசை எண்ணிட்டு தாங்கள் உத்தேசமாக எடுக்க இருக்கும் லோடுகளுக்கு லோடு ஒன்றுக்கு ஒரு சீட்டு வீதம் கணக்கிட்டு அதற்குரிய கனியளவு தொகையினை செலுத்திய பின்னர், கிருஷ்ணகிரி புவிமியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநரிடம் அனுப்புணகச்சீட்டு மற்றும் மொத்த இசைவாணைச் சீட்டு ஆகியவற்றில் உரிய முத்திரையும் கையொப்பமும் பெற்றபின்பே பயன்படுத்த வேண்டும்.
- 37) ஒப்பந்தப் பெறப்படாத அனுப்புணகச்சீட்டுடன் கனியம் கொண்டு செல்லும் வாகனங்கள் அதிலுள்ள சிறுகனியத்தை முறையற்ற வகையில் எடுத்துச்செல்வதாக கருதப்பட்டு உரிய சட்டத்தின்படி உரிய அலுவலர்களால் கைப்பற்றப்பட்டு அபராதம் விதிக்கப்படும்.
- 38) புவிமியல் மற்றும் சுரங்கத்துறை அலுவலர்கள், காவல் துறையினர் அல்லது வருவாய்த்துறை அலுவலர்கள் முதலானோர் தணிக்கை செய்யும்போது உரிய கணக்குகள் மற்றும் அனுப்புணகச் சீட்டு முதலானவைகளை குவாரி குத்தகை உரிமம் பெற்ற குத்தகைதாரர் காண்பிக்க வேண்டும்.
- 39) அரசு அலுவலர்கள் தணிக்கை செய்யும் போது சிறுகனியங்கள் கொண்டு செல்லும் வாகனங்களை தணிக்கைக்கு உட்படுத்த வாகன ஓட்டுனர்களை குத்தகைதாரர்கள் அறிவுறுத்த வேண்டும்.
- 40) அனுப்புணகச்சீட்டில் உள்ள கவங்கள் பூர்த்தி செய்யப்படாமலோ அல்லது தவறாக எழுதப்பட்டு வாகனங்களுக்கு கொடுக்கப்பட்டிருந்தாலோ சிறுகனியம் கொண்டு செல்லும் வாகன உரிமையாளருக்கு அபராதம் மற்றும் சூற்றமியல் நடவடிக்கை எடுக்கப்படும். மேலும், குவாரி குத்தகையை ரத்து செய்ய நடவடிக்கை மேற்கொள்ளப்படும்.
- 41) குத்தகைதாரர் ஒவ்வொரு நாளும் குவாரியில் எவ்வளவு சிறுகனியங்கள் வெட்டி எடுக்கப்பட்டது என்பதையும் எந்த அளவு கனியங்கள் லாரி, வண்டி மூலம் வெளியே அனுப்பப்பட்டது என்ற விவரத்தையும் காட்டும் பதிவேடு பராமரிக்க வேண்டும். குவாரி குத்தகை சம்பந்தமான இதர பதிவேடுகளை பராமரிக்க வேண்டும்.

- 42) அரசு மற்றும் மாவட்ட ஆட்சியரால் குவாரி குத்தகை உரிமம் சம்பந்தமாக ஏற்படுத்தப்பட்டுள்ள மரணம் அல்லாதது ஏற்படுத்தப்படும் சட்ட திட்டங்களுக்கும், நிபந்தனைகளுக்கும் குத்தகைதாரர்களுக்கு கட்டுப்பாட்டு நடக்க வேண்டும். குத்தகை காலத்திலோ அல்லது அதற்குப்பின்னரோ கிராமம் தவறி குத்தகையை பயன்படுத்தியதினால் ஏற்படும் சகல நஷ்டங்களுக்கும் குத்தகைதாரர்கள் பொறுப்பேற்க வேண்டும். இதற்கான விதிக்கப்படும் அபராதம் மற்றும் குற்றவியல் நடவடிக்கைக்கு கட்டுப்பாட்டு நடக்க வேண்டும்.
- 43) குத்தகை நிபந்தனை மீறப்பட்டால் குத்தகையை ரத்துச் செய்யவோ செய்யப்பட்ட தவறுகளுக்கு குத்தகைதாரர்களுக்கு தண்டனை விதிக்கவோ கிரிமினல் வழக்குதொடரவோ அரசுக்கு அதிகாரம் உண்டு. குத்தகை ரத்துச் செய்யப்பட்டால் காப்புத்தொகை 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 அப்பராதன சிள்ளங்கள் பாதுகாக்கப்பட வேண்டும்.
- 47) டெண்டரில் கோரப்படும் புல எண்களின் பேரில் எவையேனும் நிதிமன்றத்தின் ஆணை / தடையாணை முதலானவை நிதிமன்றத்தில் 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 அளவிட்டு செய்து ஊன்றி அடையாளமிட்ட பின்பே குவாரி செய்ய வேண்டும். எல்லை கற்களை குத்தகை காலம் முழுவதும் தனது சொந்த செலவில் நன்கு பராமரிக்க வேண்டும்.
- 50) குத்தகைக்கு வழங்கப்பட்ட கற்குவாரிகளில் சாதாரண கற்கள், கட்டுக்கல், சக்கை கற்கள், ஐஸ்வி கற்கள் ஆகியவைகளை மட்டுமே குவாரி செய்ய வேண்டும். அயல் நாட்டிற்கு ஏற்றுமதி செய்வதற்கும் மெருகு ஏற்றுமதிக்கும் 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 கம்பர்சர்களை கொண்டு துளையிட்டு வெடிவைக்க வேண்டும். ஆழ்துளை கிணறு உபகரணங்களை (Rig Bore) கொண்டு துளையிட்டு வெடிவைக்கக்கூடாது. 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, 1984 ஆம் ஆண்டின் இந்திய வெடிபொருட்கள் சட்டம், 1964 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 உரியம் தொடர்பான டெண்டர் / ஏலம் உறுதி செய்யப்பட்ட விண்ணப்பதாரர் உரிய குவாரி குத்தகை பகுதிக்கு மாவட்ட வன அலுவலர், கிருஷ்ணகிரி / ஓசூர் 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 சமர்ப்பித்து அங்கீகாரம் பெற்று அதற்கான சுற்றுச் சூழல் தடையின்மை சான்று சமர்ப்பித்த பின்பே அதனை செய்ய வேண்டும்.
- 59) குவாரி ஆரம்பியது தொடர்பான அறிவிப்பை (Notice of opening) இந்திய அரசு பெங்களூரு மண்டல சுரங்க பாதுகாப்பு துறை இயக்குநர் அவர்களுக்கு சமர்ப்பிக்க 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

(i.) கிருஷ்ணகிரி வருவாய் கோட்டம்

கிருஷ்ணகிரி வட்டம்

வ. எண்	கிராமம்	புல எண்கள்	மொத்த பரப்பு	குவாரி குத்தகை வழங்கும் பரப்பு	வகைப்பாடு	குத்தகை உரிமம் காலம்
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(ஹெக்டேர்)	(ஹெக்டேர்)		
1	ஜீஞ்சுப்பள்ளி	169(பகுதி)	8.56.00	2.00.00	தீ.ஏ.த.பாறை	10
2	ஜீஞ்சுப்பள்ளி	197/2(பகுதி)	1.77.00	1.20.00	தீ.ஏ.த தரிசு	10

13

(1)	(2)	(3)	(4) (மொத்தம்)	(5)	(6) (மொத்தம்)	(7)
3	பில்லனகூப்பம்	278	2.08.50	2.08.50	2.08.50	2.08.50
4	சூலாமலை	54 (பகுதி-3)	16.45.00	1.40.00	1.40.00	1.40.00



(II) ஒதுர் வருவாய் கோட்டம்.

ஒதுர் வட்டம்

5	பஞ்சாட்சிபுரம்	603/1 (பகுதி-சி)	21.20.50	1.30.00	1.30.00	1.30.00
6	பஞ்சாட்சிபுரம்	603/1 (பகுதி-டி)	21.20.50	2.00.00	2.00.00	2.00.00
7	கோபனப்பள்ளி	220/1 (பகுதி-1)	16.76.00	3.00.00	3.00.00	3.00.00
8	கோபனப்பள்ளி	220/1 (பகுதி-2)	16.76.00	3.00.00	3.00.00	3.00.00
9	கோபனப்பள்ளி	220/1 (பகுதி-3)	16.76.00	3.00.00	3.00.00	3.00.00
10	கோபனப்பள்ளி	220/1 (பகுதி-4)	16.76.00	2.00.00	2.00.00	2.00.00
11	கோபனப்பள்ளி	381 (பகுதி-1)	4.61.50	1.30.00	1.30.00	1.30.00
12	கோபனப்பள்ளி	381 (பகுதி-2)	4.61.50	1.50.00	1.50.00	1.50.00

சூனகிரி வட்டம்

13	காமன்தொட்டி	616/3 (பகுதி-2)	7.66.50	2.75.00	2.75.00	2.75.00
14	காமன்தொட்டி	653/1(பகுதி)	7.56.00	3.35.00	3.35.00	3.35.00
15	காமன்தொட்டி	754 & 760 (பகுதி-6)	36.46.50	4.00.00	4.00.00	4.00.00
16	வெங்கடேசபுரம்	86-(பகுதி-1)	60.80.00	2.50.00	2.50.00	2.50.00
17	வெங்கடேசபுரம்	86-(பகுதி-2)	60.80.00	2.00.00	2.00.00	2.00.00
18	வெங்கடேசபுரம்	86-(பகுதி-3)	60.80.00	2.00.00	2.00.00	2.00.00
19	பிளஸ்திம்மசந்திரம்	88/1 (பகுதி-3)	12.79.00	4.50.00	4.50.00	4.50.00

(1)	(2)	(3)	14 (4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
20	தோரீப்பள்ளி	72(பகுதி) 87/1(பகுதி)	9.71.00 8.77.00	0.65.00 0.95.00	தீ.ஏ.த பாறை தீ.ஏ.த பாறை	10
			பொத்தம்	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.

வி. ஜெய சந்திர பானுரெட்டி,
மாவட்ட ஆட்சியர்,
கிருஷ்ணகிரி மாவட்டம்.


S. MATHAN PRAKASH, M.Sc., M.Phil.,
ROP/CNN/270/2016'

தமிழ்நாடு எழுதுபொருள் மற்றும் அச்சத்துறை ஆணையரால் சேலம் அரசினர் கிளை அச்சகத்தில் அச்சிடப்பட்டு மாவட்ட ஆட்சியரால் வெளியிடப்பட்டது.

வணம் காட்டுவது

தமிழ்நாடு வனத்துறை

வணம் பெறுவோம்

அனுப்பதல்

செல்வி க. கார்த்திகேயனி, இடைய,
வளையிரினகாப்பாளர்,
ஒரூர் வனக்கோட்டம்,
மத்திகிரி, ஒரூர் - 635 110.
தொலைபேசி எண். 04344 296600.

பெறுதல்

மாவட்ட ஆட்சித் தலைவர், AUG 2022
கிருஷ்ணகிரி மாவட்டம்,
கிருஷ்ணகிரி
கிருஷ்ணகிரி



ந.க.எண். 261/2022/எல் நாள். 10.02.2022
பூர்விகை வரும், சை மாதம் 28, திருவள்ளூர் ஆண்டு 2022

அப்பா,

பொருள் : கனிமங்களும் குவாரிகளும் - கிருஷ்ணகிரி மாவட்டம் - அரசு புலங்களில் உரிமம் முடிவடைந்த குவாரிகள் மற்றும் புதிய குவாரிகளை டெண்டர் மற்றும் பொது ஏலத்தில் கொண்டுவர வளப்பகுதி மற்றும் சரணாலயத்திற்கு உள்ள தொலைவு விவரம் மற்றும் இதர விவரங்கள் கோரியது - தொடர்பாக.

- பார்வை :**
1. அரசு ஆணை (நிலை) எண். 295 தொழிற் (எம்எம்சீ1) துறை நாள். 03.11.2021.
 2. துணை இயக்குநர், புதியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி மாவட்டம் ந.க.எண்.817/2020/கனிமம் நாள். 31.12.2021 மற்றும் 04.02.2022.
 3. மாவட்ட ஆட்சித் தலைவர், கிருஷ்ணகிரி ந.க.எண்.817/2020/கனிமம் நாள். 04.02.2022.
 4. இவ்வலுவலக ந.க.எண். 261/2022/எல், நாள்.10.02.2022

பார்வையின் கடிதங்களில் தெரிவிக்கப்பட்ட அரசு புலங்களில் உரிமம் முடிவற்ற குவாரிகள் மற்றும் புதிய குவாரிகளுக்கு டெண்டர் மற்றும் பொது ஏலத்தில் கொண்டுவர, வளப்பகுதி மற்றும் சரணாலயப் பகுதியிலிருந்து உள்ள தொலைவு விவரம் கோரப்பட்டுள்ளது. இது தொடர்பான விவரம் பின்வருமாறு தெரிவிக்கப்படுகிறது.

குவாரி அனுமதிக்கான வனத்துறையின் குறிப்புரையை முறையே வளப்பாதுகாவலர் மற்றும் முதன்மை தலைமை வளப்பாதுகாவலர் அவர்களின் அங்கீகாரத்தின்படியே, வளையிரின காப்பாளரால் வழங்கப்படுகிறது. எனவே, இவ்வரைவு வனத்துறையின் தடையின்மை ஆவணமாக கருதிடலாகாது. மேலும், பார்வையின் கடிதத்தில் கேட்டவாறு வனத்துறையின் குறிப்புரையளிப்பது குறித்து முன்மொழிவு / பரிந்துரை கடிதம் பார்வை 4ல் கண்ட இவ்வலுவலக கடிதத்தில் வளப்பாதுகாவலர், தருமபுரி மூலமாக முதன்மை தலைமை வளப்பாதுகாவலர் அவர்களுக்கு சமர்ப்பிக்கப்பட்டுள்ளது. அதன்படி, அரசு புலங்களில் குவாரி அமைக்க அனுமதி கோரப்பட்ட இடத்தின் தூரம் தகவலின்பொருட்டு பின்வருமாறு தெரிவிக்கப்படுகிறது.

அட்டவணை 1

உடேர்டு / உடேர்டு எர்டு விடேர்டு ஸ்டீர்டு ஸெட்டிபலிசெட் குவாரி ஸ்டீர்டு விடேர்டு

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 - Parai	169 (Part)	2.00.00	12.54916	78.15410	3.4 Pethathalappalli	20 Udedurgam
2	Jinjupalli	Un-assessed waste - Tharisu	197/2 (Part)	1.20.00	12.55956	78.15585	4 Pethathalappalli	20.4 Udedurgam
3	Billanakuppam	Un-assessed waste - Parai	278	2.08.50	12.59999	78.16812	3.2 Naralappalli Extn.	23 Udedurgam
Bargur Taluk								
4	Shoolamalai	Un-assessed waste - Parai	54-Part-3	1.40.00	12.51168	78.25921	7.4 Pethathalappalli	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 Amuthugondappalli	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



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	12.63109	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
Denkanikottal 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 1ல் உள்ள குவாரி பகுதிகள், காவேரி வடக்கு வளாயினை சரணாலயத்திற்கான மூழல் உயர்தான் மண்டலத்திற்குள் (Eco-Sensitive Zone) வருவதில்லை.

அட்டவணை 2

டெண்டர் / பொது ஏலம் மூலம் குத்தகை அனுமதி வழங்குவதை தற்சமயம் நிறுத்திவைக்க பரிந்துரை செய்யப்படும் குவாரிகளின் 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	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 Pathathalapalli	27.8 Udedurgam
Uthangarai Taluk								
6	Katteri	Govt. Punjai - Podugal	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	53/1 (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 கள ஆய்வு மேற்கொள்ள வேண்டி உள்ளதாலும், மேலும் கால அவகாசம் 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 துாரத்தை கணக்கிடும் பொருட்டே அனுப்பப்படுகிறது. குவாரி பணிகள் மேற்கொள்ள தனிபாக துறைத்தலைவரிடமிருந்து வனத்துறையின் தடைகுறித்த குறிப்புரை வழங்கப்படும் என அன்புடன் தெரிவித்துக்கொள்கிறேன்.

தங்கள் அன்புள்ள,
 ஓம்/- க. கார்த்திகேயனி,
 வனஉயிரினகாப்பாளர்,
 ஓசூர் வனக்கோட்டம்.

//உ.ந.உ.ப//

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

ANNEXURE - V

பக்கம் 2
 கிராமத்தில் வருவாயி பணவாரி கடைபிற்ற சாகுபடி அடங்கல் கடைக்கு
 இலண்டன் கோவல்

பெயர்	வயது	பாலினம்	இலண்டன் கோவல்					குறிப்பு
			1	2	3	4	5	
செ. சிவசுந்தரி	58	பெண்	1	2	3	4	5	6
செ. சிவசுந்தரி	58	பெண்	1	2	3	4	5	6
செ. சிவசுந்தரி	58	பெண்	1	2	3	4	5	6

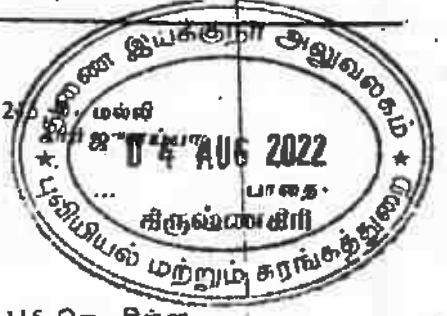



பக்கம் 3
 கிராமத்தில் வருவாயி பணவாரி கடைபிற்ற சாகுபடி அடங்கல் கடைக்கு
 இலண்டன் கோவல்

பெயர்	வயது	பாலினம்	இலண்டன் கோவல்					குறிப்பு
			1	2	3	4	5	
செ. சிவசுந்தரி	58	பெண்	1	2	3	4	5	6
செ. சிவசுந்தரி	58	பெண்	1	2	3	4	5	6
செ. சிவசுந்தரி	58	பெண்	1	2	3	4	5	6

Issue (copy)
 செ. சிவசுந்தரி
 Village Administrator/Officer
 85, GOPANAPALLI
 Hosur T.K, Krishnagiri D.

1	2	3	4	5	6	7	8	9	10	11	12	
14	IC	214-1பா	ர	4	...	8-3	7	2 77	0 34-5	0 96	215	கு.ப.ப. தென்-தர்ன். கு.ப.ப.
	2	-2	அ	4ப	...	...	...	...	0 16-0	...		
									1 28-0	3 12		
215	...	215	ர	4	...	8-5	10	1 09	0 39 0	0 44	115	கு. சின்ன மல்வேசவுடு.
216	...	216	அ	4ப	...	...	...	...	0 90-0	...	...	மாத் தாப்பு.
217	...	217	அ	4ப	...	...	...	...	0 22-0	...	...	வா.பி.
218	...	218	ர	4	...	8-5	10	1 09	0 33-0	0 37	330	கு. வடகமய்யா.
219	...	219	அ.த.ஏ.த	...	...	...	...	...	2 94-0	...	...	தீர்வை ஏற்படாததற்கு.
220	1	220-1	அ.த.ஏ.த	...	...	...	...	...	16 76-0	...	...	தீர்வை ஏற்படாததற்கு.
	2	-2	அ	4ப	...	...	...	...	0 91-0	...	...	மெய்ச்சல்தரை.
	3	-3	ர	4	...	8-5	10	1 09	1 85 0	2 00	379	ச. நாராயணப் பா.
									19 52-0	2 00		
221	1	221-1	ர	4	...	8-3	7	2 77	0 27 0	0 75	465	ம. கரத்தப்பா (1), ம. மல்வப்பா (2), கு. வடகமய்யா (3).
	2	-2	ர	4	...	8-5	10	1 09	0 10 0	0 12	466	கு. வடகமய்யா (1), க. சித்தப்பப்பா (2), கு. சின்ன மல்வேசவுடு (3).
									0 37 0	0 87		
222	...	222	அ	4ப	...	...	...	...	0 52 0	...	...	வா.பி.
223	...	223	ர	4	...	8-3	7	2 77	0 35-0	1 00	507	ம. கரத்தப்பா (1), ம. மல்வப்பா (2), க. சித்தப்பப்பா (3), கு. சின்ன மல்வேசவுடு (4).
224	...	224	அ	4ப	...	...	...	...	0 32-0	...	...	மெய்ச்சல்தரை.
225	...	225	ர	4	...	8-3	7	2 77	0 28 0	0 75	507	ம. கரத்தப்பா (1), ம. மல்வப்பா (2), க. சித்தப்பப்பா (3), கு. சின்ன மல்வேசவுடு (4).




 Village Administrative Officer
 85. GOPANAPALLI
 Hosur-Tk, Krishnagiri Dt.

ZONAL DEPUTY TALUKDAH
 HOSUR.

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

ANNEXURE - VI



ನಿಹಿನ್ ಆರ್
Nithin C
ಜನ್ಮ ದಿನಾಂಕ / DOB : 11/07/1992
ಲಿಂಗ / Male

8541 2815 4144

ಆಧಾರ್ - ಶ್ರೀಸಾಮಾನ್ಯನ ಅಧಿಕಾರ

To
ನಿಹಿನ್ ಆರ್
Nithin C
S/O: Chandra Reddy M
82
Kasaba circle
Avaladandahalli
Mangur
Anekal Bangalore
Karnataka 562106
9740708862

21/12/2013

87313576



MN873135765FT

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

भारत सरकार / GOVERNMENT OF INDIA
खान मंत्रालय / MINISTRY OF MINES
भारतीय खान ब्यूरो / INDIAN BUREAU OF MINES



अर्हताप्राप्त व्यक्ति के रूप 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 स्ट्रीट, कुलरोकरनल्लूर पोस्ट, ओटपिडारम तालुक, तूतुकुडी डस्ट्रीक्ट - 628 401, तमिलनाडु, 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 स्थिति 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
चेन्नई क्षेत्र / Chennai Region

PHOTO SHOWN PROPOSED APPLIED LEASE AREA VIEW-1

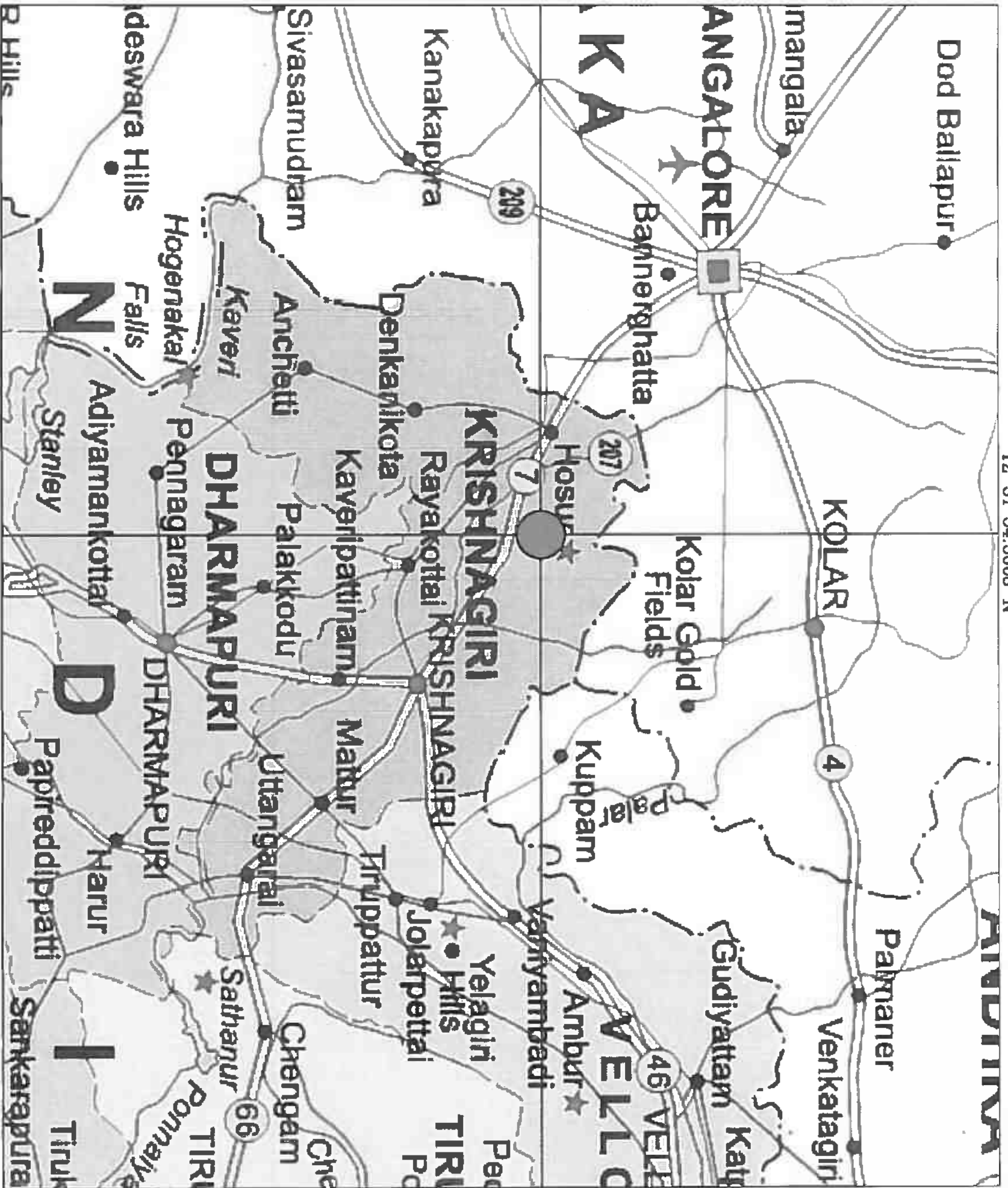


PHOTO SHOWN PROPOSED APPLIED LEASE AREA VIEW-2




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

77° 48' 32.8686" E



12° 37' 54.3668" N

77° 48' 40.8039" E



PLATE NO:1

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/O. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

QUARRY LEASE AREA : ●
TOPO SHEET NO. : 57-H/14,
LATITUDE : 12° 37' 54.3668" N to 12° 37' 53.1120" N
LONGITUDE: 77° 48' 40.8039" E to 77° 48' 32.8686" 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

12° 37' 53.1120" N

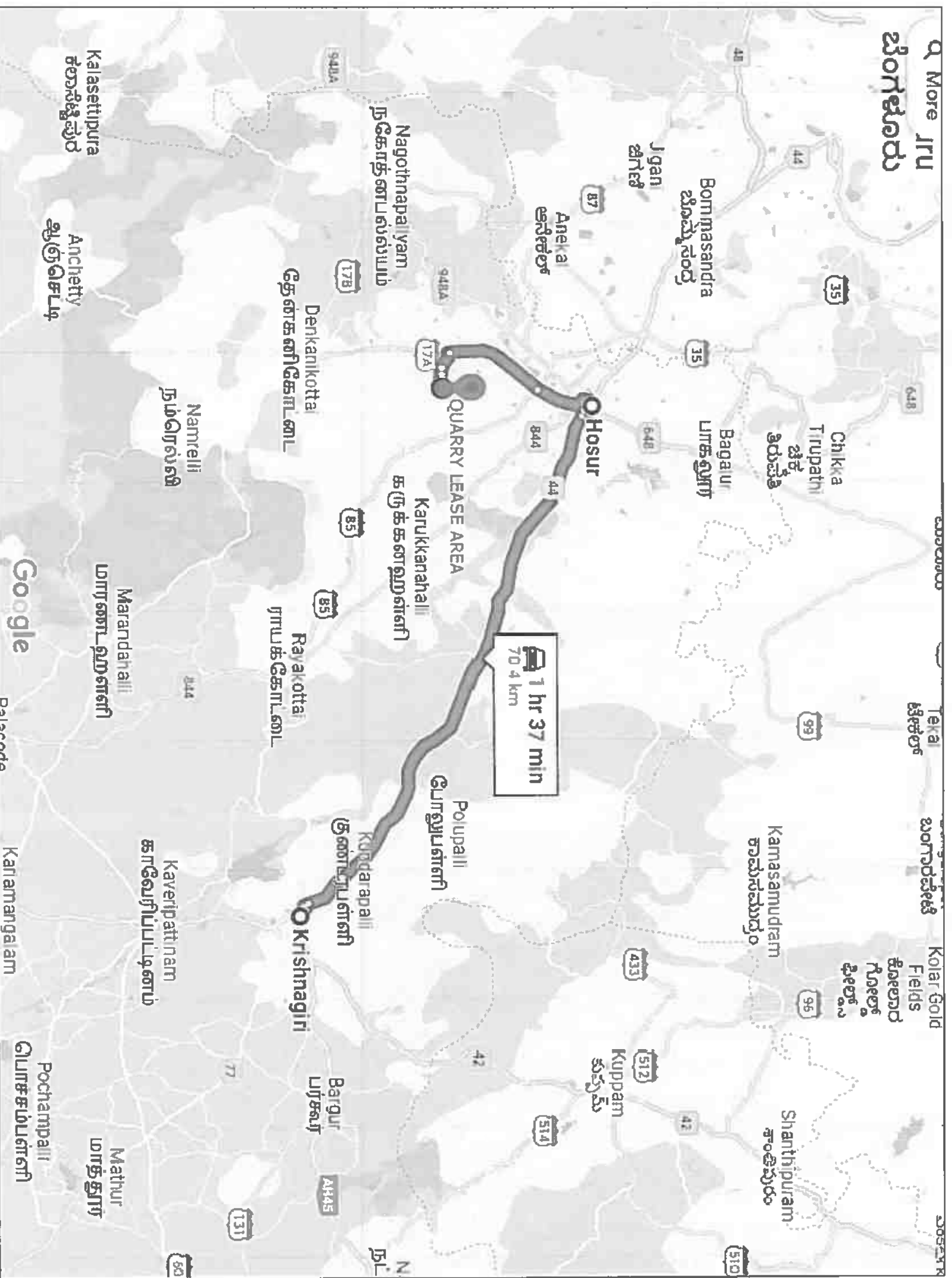


PLATE NO:1A	
DATE OF SURVEY: 09-05-2022	
APPLICANT ADDRESS: THIRU. C.NITHIN REDDY, S/o. CHANDRA REDDY, D.No.83, AVADADENAHALLI VILLAGE, MARSUR POST, ANEKAL TALUK, BANGALORE DISTRICT - 562 106.	
LOCATION OF QUARRY:	
EXTENT	: 3.00.00 Ha.
S.F.NO	: 220/1 (Part-2)
VILLAGE	: GOPANAPALLI,
TALUK	: HOSUR,
DISTRICT	: KRISHNAGIRI.
INDEX	
QUARRY LEASE AREA	
ROAD	
ROUTE MAP	
NOT TO SCALE	
Prepared By:	
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 S.MATHAN PRAKASH, M.Sc., M.Phil., RECOGNIZED QUALIFIED PERSON <small>0907/MI/170/2016/A</small>	

PLATE NO:1B

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C. NITHYANANDHARAJU
 S/o. CHANDRASEKHAR REDDY,
 D.No.83, MADADENAHALLI VILLAGE,
 MARSUR POST, 04 A/16 2022
 ANEKAL TALUK,
 BANGALORE DISTRICT - 567 446

LOCATION OF QUARRY:

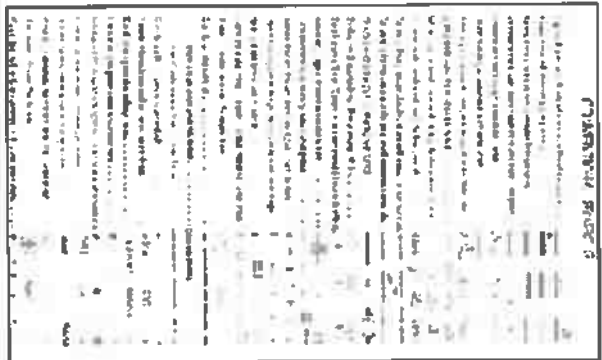
EXTENT : 3.0000 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 DISTRICT : KRISHNAGIRI.

INDEX

QUARRY LEASE AREA :

5KM RADIUS :

TOPO SHEET NO. : 57-H/14,
 LATITUDE : 12° 37' 54.3668" N to 12° 37' 53.1120" N
 LONGITUDE : 77° 48' 40.8039" E to 77° 48' 32.8686" E

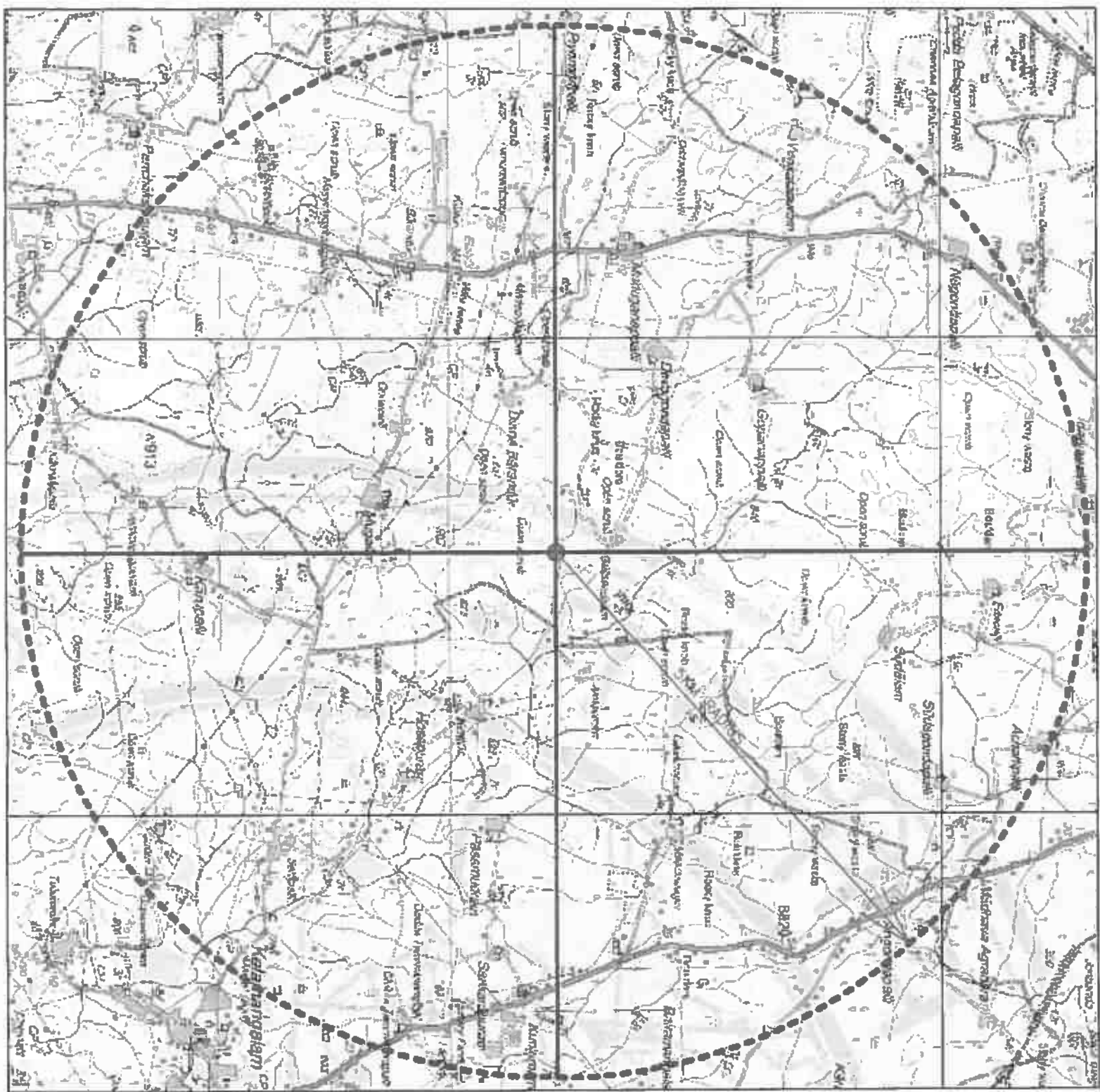


TOPO SHEET MAP OF
 THE LEASE AREA
 SCALE: 1:50,000

PREPARED BY:

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 TO THE BEST OF MY KNOWLEDGE

S.MATHAN PRAKASH, M.Sc., M.Phil.,
 RECOGNIZED QUALIFIED PERSON
 DDD/7/NINI/720/2015/1A



12° 37' 54.3668" N

77° 48' 32.8686" E

12° 37' 53.1120" N

77° 48' 40.8039" E



12° 37' 56.7500" N
77° 48' 33.7498" E



12° 37' 53.1120" N
77° 48' 32.8686" E

12° 37' 54.3668" N
77° 48' 40.8039" E

12° 37' 49.2086" N

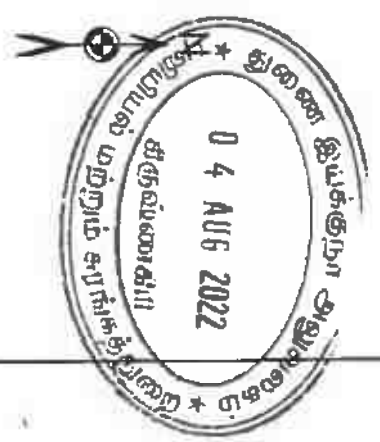


PLATE NO:IC

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/O. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 500M RADIUS
- 300M RADIUS

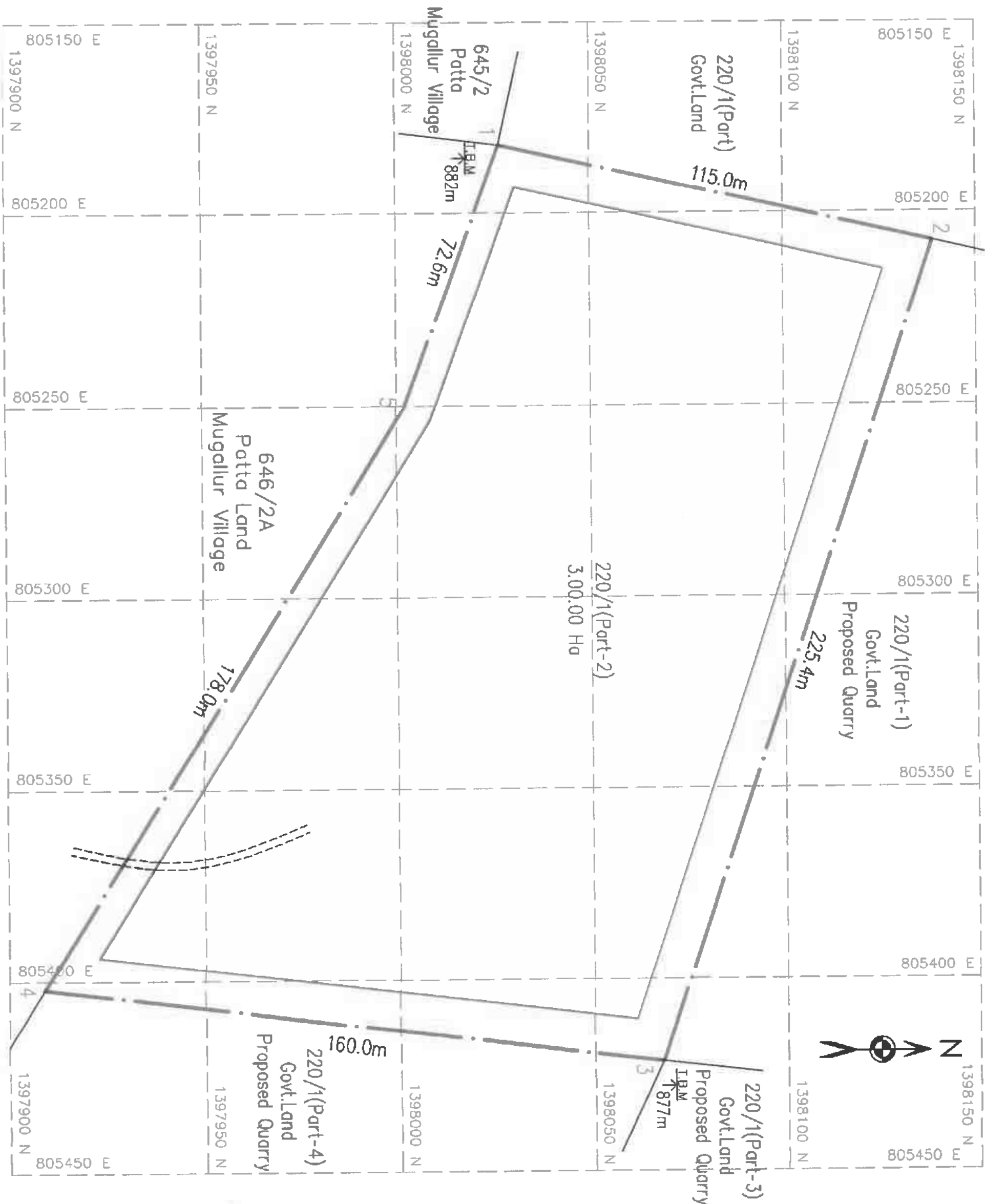
SATELLITE IMAGE
(500m RADIUS)

SCALE 1:5000

Prepared By:

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TO THE BEST OF MY KNOWLEDGE

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RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A



BOUNDARY COORDINATES	
LABEL	LATITUDE
1	12° 37' 53.160" N
2	12° 37' 56.750" N
3	12° 37' 54.368" N
4	12° 37' 49.086" N
5	12° 37' 52.283" N

PLATE NO:11
 DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:
 THIRU. C.NITHIN REDDY,
 S/o. CHANDRA REDDY,
 D.No.83, AVADADENAHALLI VILLAGE,
 MARSUR POST,
 ANEKAL TALUK,
 BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:
 EXTENT : 3.00.00 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD

MINE LEASE PLAN
 SCALE 1:1000

Prepared By:
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S.MATHAN PRAKASH, M.Sc., M.Phil.,
 RECOGNIZED QUALIFIED PERSON
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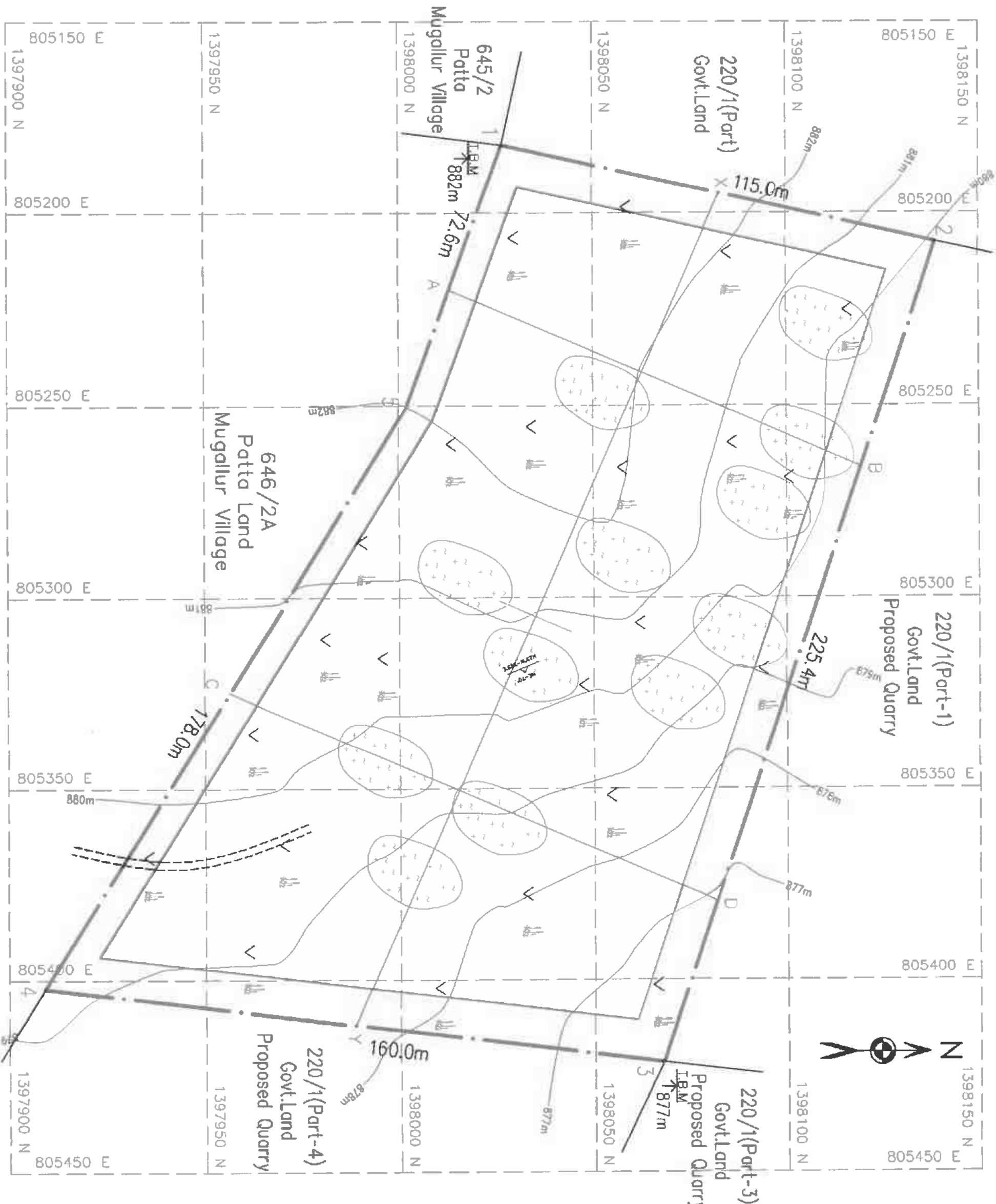


PLATE NO. 04 AUG 2022
 DATE OF SURVEY: 09-05-2022
 APPLICANT ADDRESS:
 THIRU. C. NITHIN REDDY,
 S/o. CHANDRA REDDY,
 D.No.83, AVADADENAHALLI VILLAGE,
 MARSUR POST,
 ANEKAL TALUK,
 BANGALORE DISTRICT - 562 106.

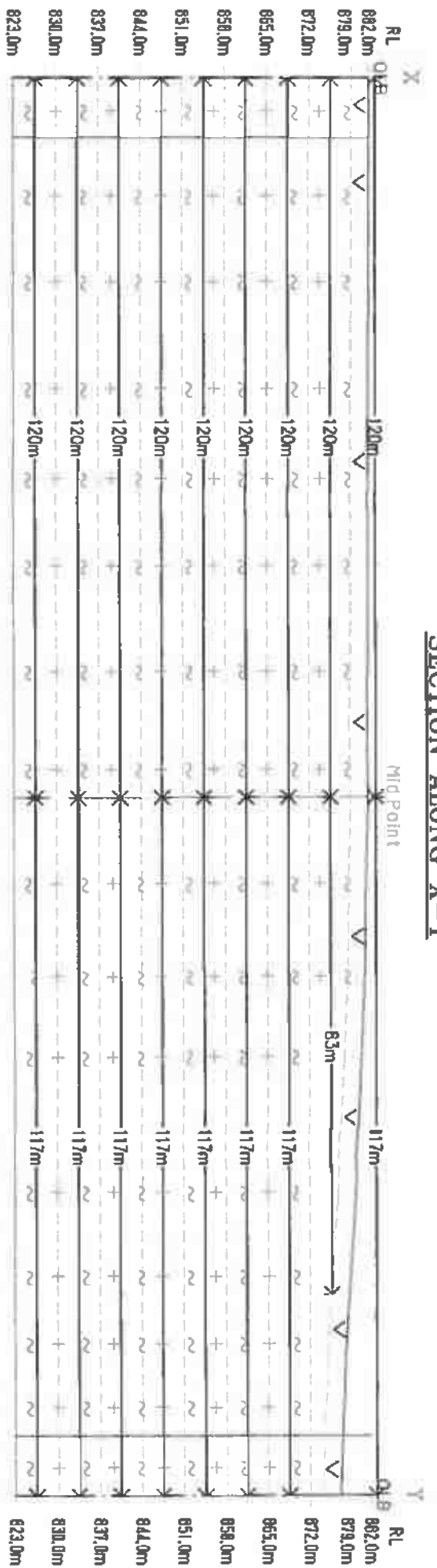
LOCATION OF QUARRY:
 EXTENT : 3.00.00 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 DISTRICT : KRISHNAGIRI.

INDEX
 QUARRY LEASE BOUNDARY
 7.5m & 10.0m SAFETY DISTANCE
 TEMPORARY BENCH MARK
 TOP SOIL (GRAVEL)
 ROUGH STONE
 ROCK OUTCROPS
 CONTOUR LINE
 STRIKE & DIP
 QUARRY ROAD
 SHRUB

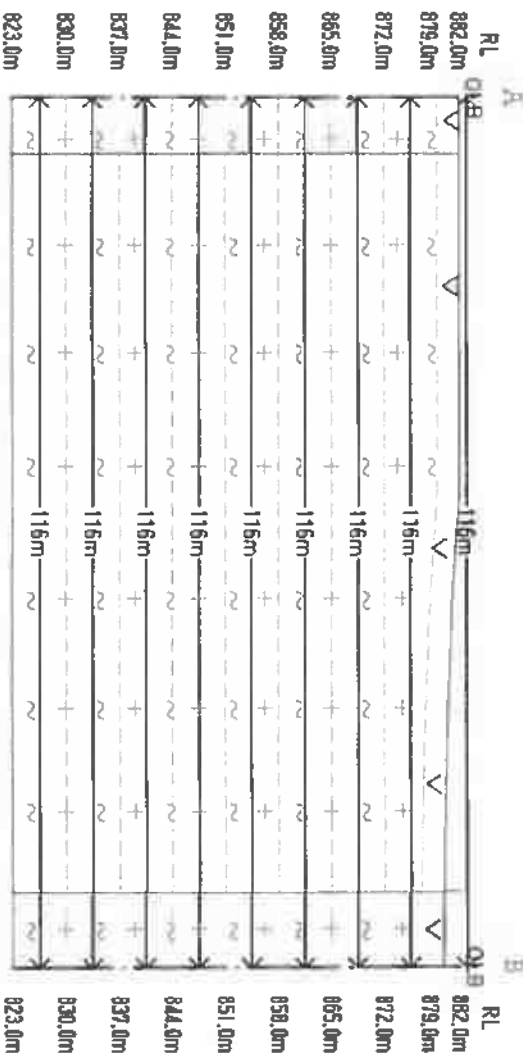
SURFACE AND GEOLOGICAL
 PLAN
 SCALE 1:1000

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

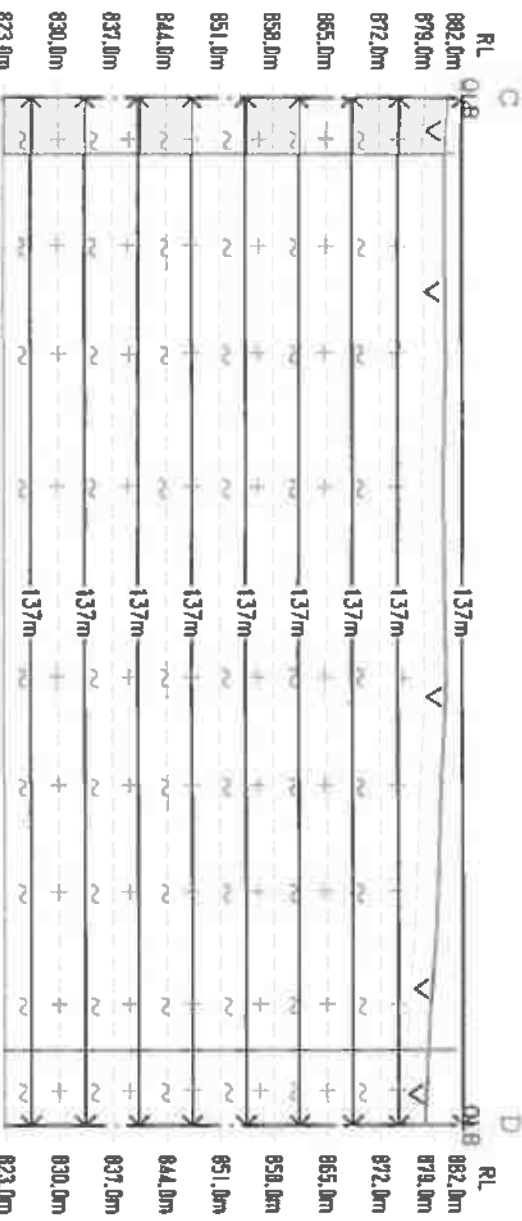
SECTION ALONG X-Y



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	120	116	3	97440	97440	41760
	II	120	116	7	97440	97440	
	III	120	116	7	97440	97440	
	IV	120	116	7	97440	97440	
	V	120	116	7	97440	97440	
	VI	120	116	7	97440	97440	
	VII	120	116	7	97440	97440	
	VIII	120	116	7	97440	97440	
	IX	120	116	7	97440	97440	
Total=					779520	779520	41760
XY-CD	I	117	137	3	79597	79597	48087
	II	83	137	7	79597	79597	
	III	117	137	7	112203	112203	
	IV	117	137	7	112203	112203	
	V	117	137	7	112203	112203	
	VI	117	137	7	112203	112203	
	VII	117	137	7	112203	112203	
	VIII	117	137	7	112203	112203	
	IX	117	137	7	112203	112203	
Total=					865018	865018	48087
Grand Totals=					1644538	1644538	89847

Surface Ground Level Above 54m
Surface Ground Level Below 54m

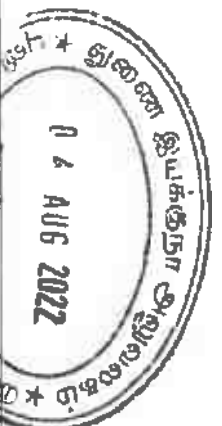


PLATE NO: III-A

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/O. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

GEOLOGICAL 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

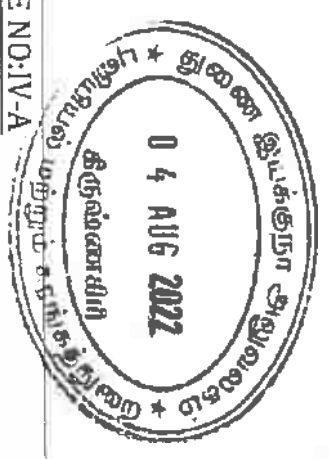
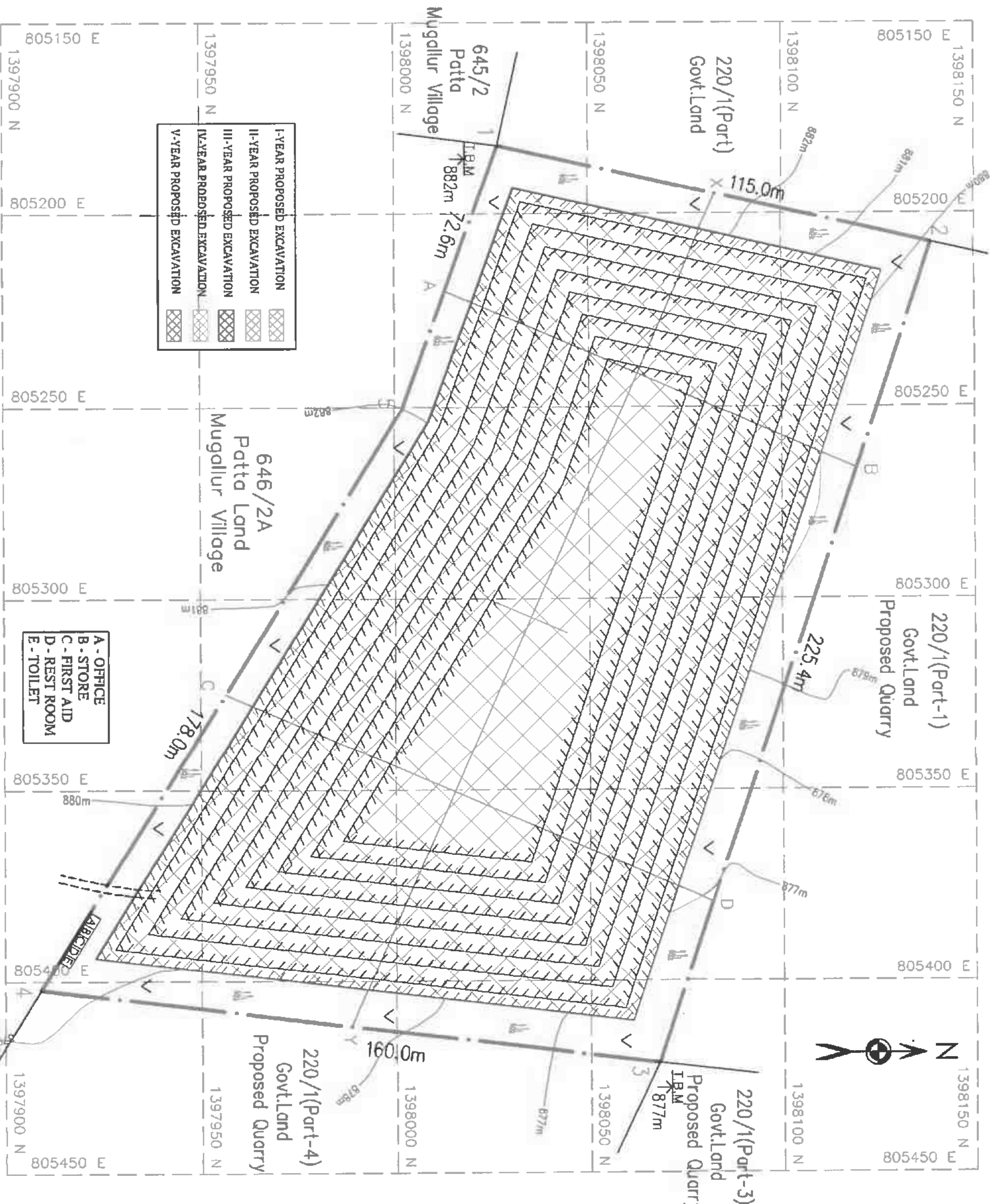


PLATE NO: IV-A
 DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C. NITHIN REDDY,
 S/o. CHANDRA REDDY,
 D.No.83, AVADADENAHALLI VILLAGE,
 MARSUR POST,
 ANEKAL TALUK,
 BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 DISTRICT : KRISHNAGIRI.

INDEX

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

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

(First Five (I-V) Years)

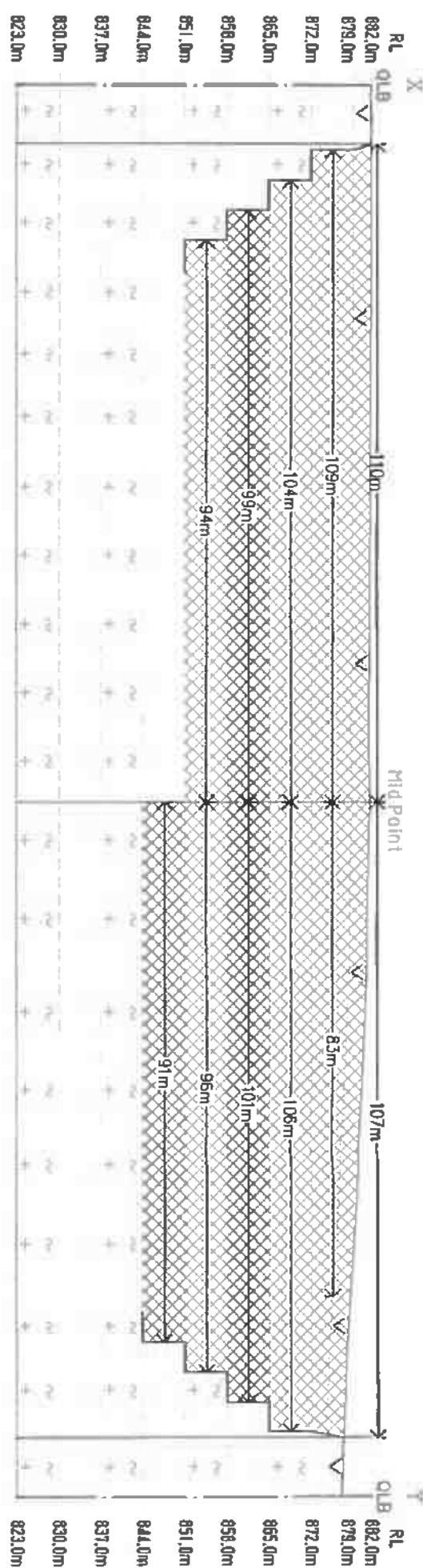
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Prepared By:

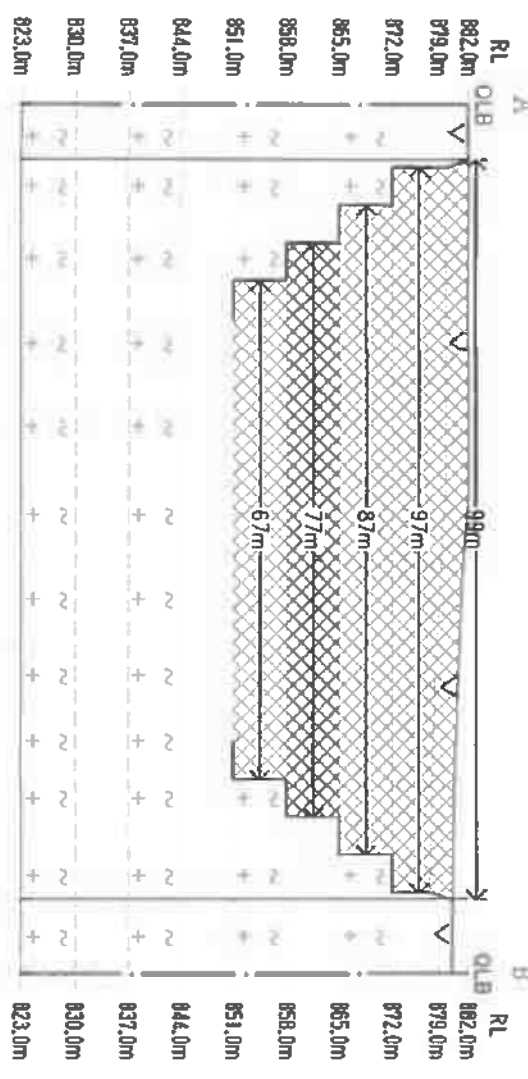
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 RECOGNIZED QUALIFIED PERSON
 RQP/CNN/270/2016/A

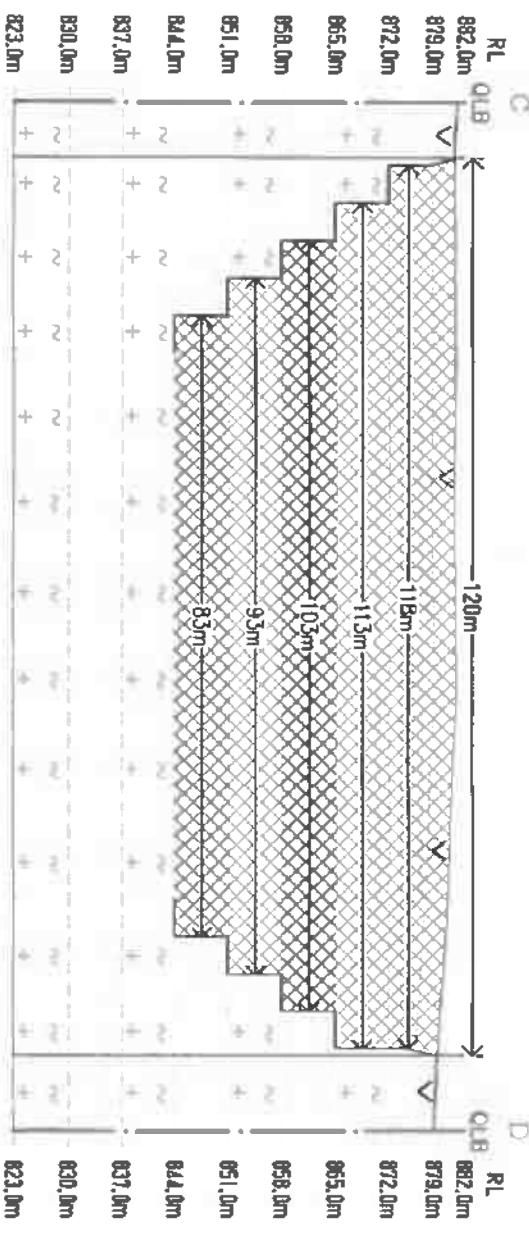
SECTION ALONG X-Y



SECTION ALONG A-B



SECTION ALONG C-D



Legend for Excavation Years:

- I-YEAR PROPOSED EXCAVATION (Diagonal lines /)
- II-YEAR PROPOSED EXCAVATION (Diagonal lines \)
- III-YEAR PROPOSED EXCAVATION (Cross-hatch)
- IV-YEAR PROPOSED EXCAVATION (Horizontal lines)
- V-YEAR PROPOSED EXCAVATION (Vertical lines)

YEARWISE DEVELOPMENT AND PRODUCTION (First Five (I-V) Years)								
Year	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.
I-YEAR	XY-AB	I	110	99	3	74011	74011	32670
		II	109	97	7			
I-YEAR	XY-CD	I	107	120	3			
		II	83	118	7	68558	68558	
II-YEAR	XY-AB	III	104	87	7	63336	63336	
		III	106	113	7	83846	83846	
II-YEAR	XY-AB	IV	99	77	7	53361	53361	
		IV	101	103	7	72821	72821	
IV-YEAR	XY-AB	V	94	67	7	44086	44086	
		V	96	93	7	62496	62496	
V-YEAR	XY-AB	VI	91	83	7	52871	52871	
		Total=					575386	575386	71190

04 A116 2022

Surface Ground Level Above Height 500

Surface Ground Level Below 500

PLATE NO:IV-A1

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/O. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

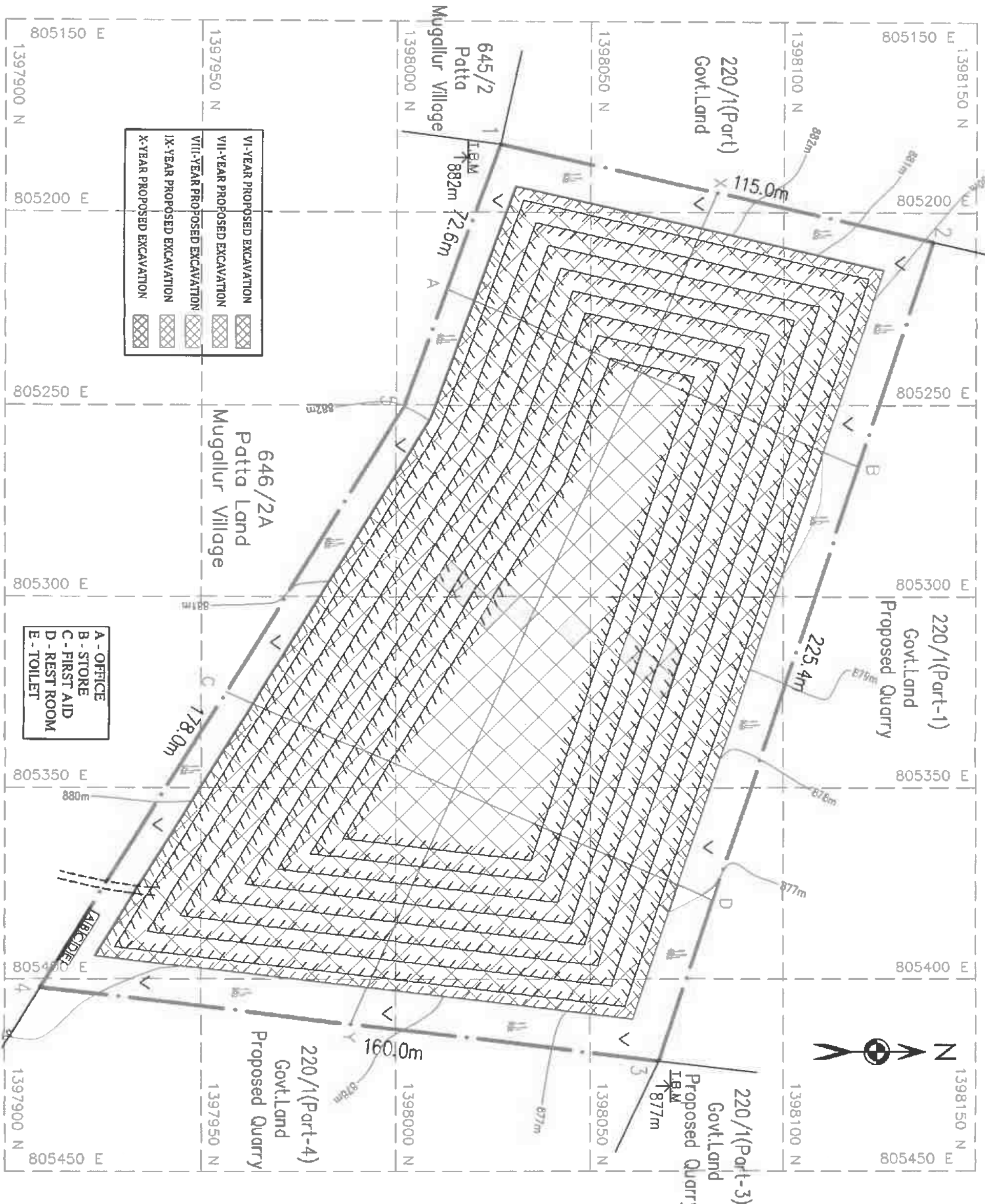
YEARWISE DEVELOPMENT AND PRODUCTION SECTIONS (First Five (I-V) Years)

SCALE 1:1000

Prepared By:

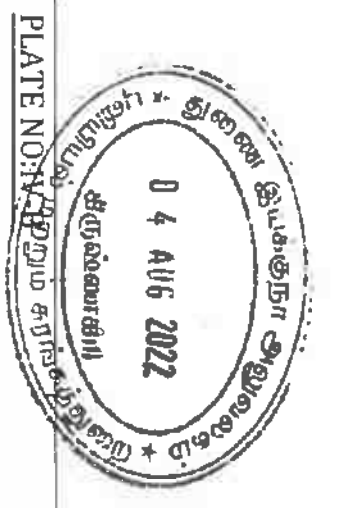
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

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



	VI-YEAR PROPOSED EXCAVATION
	VII-YEAR PROPOSED EXCAVATION
	VIII-YEAR PROPOSED EXCAVATION
	IX-YEAR PROPOSED EXCAVATION
	X-YEAR PROPOSED EXCAVATION

	A - OFFICE
	B - STORE
	C - FIRST AID
	D - REST ROOM
	E - TOILET



DATE OF SURVEY: 09-05-2022-

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

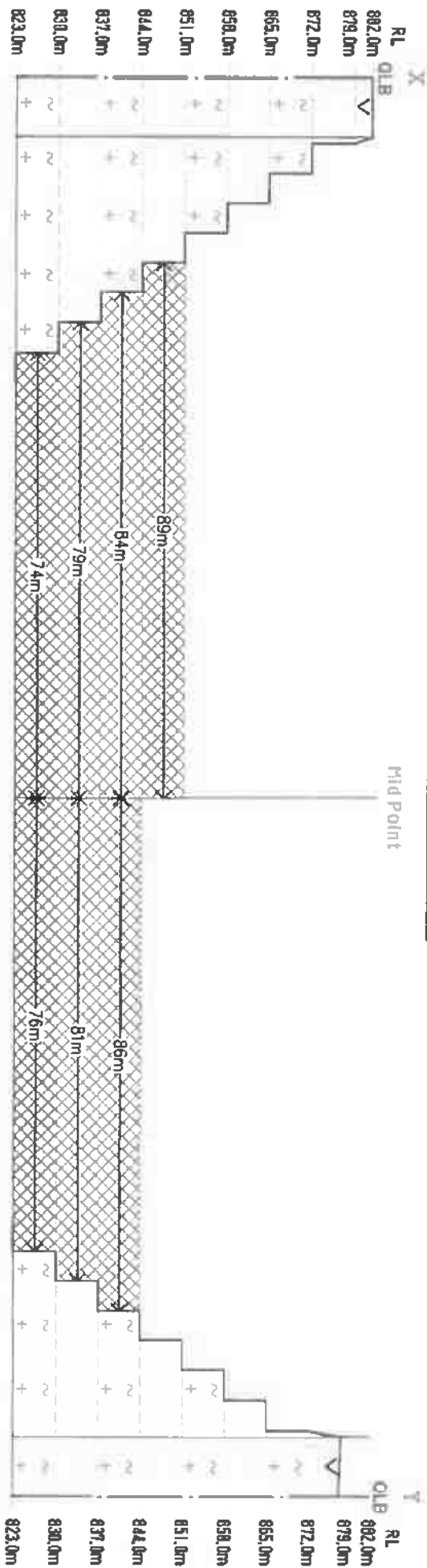
YEARWISE DEVELOPMENT AND
PRODUCTION PLAN
(Second Five (VI-X) Years)
SCALE 1:1000

Prepared By:

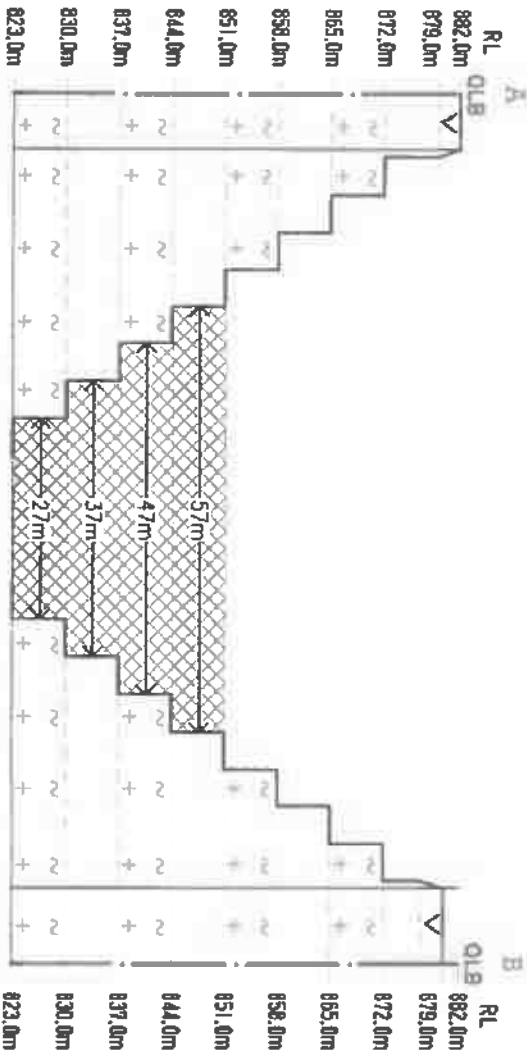
I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.NATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
ROP/CMN/770/2016/A

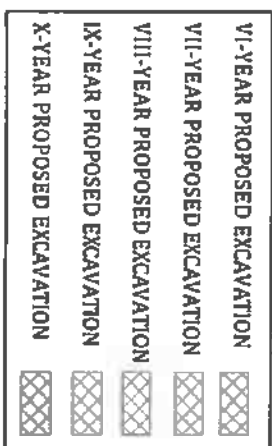
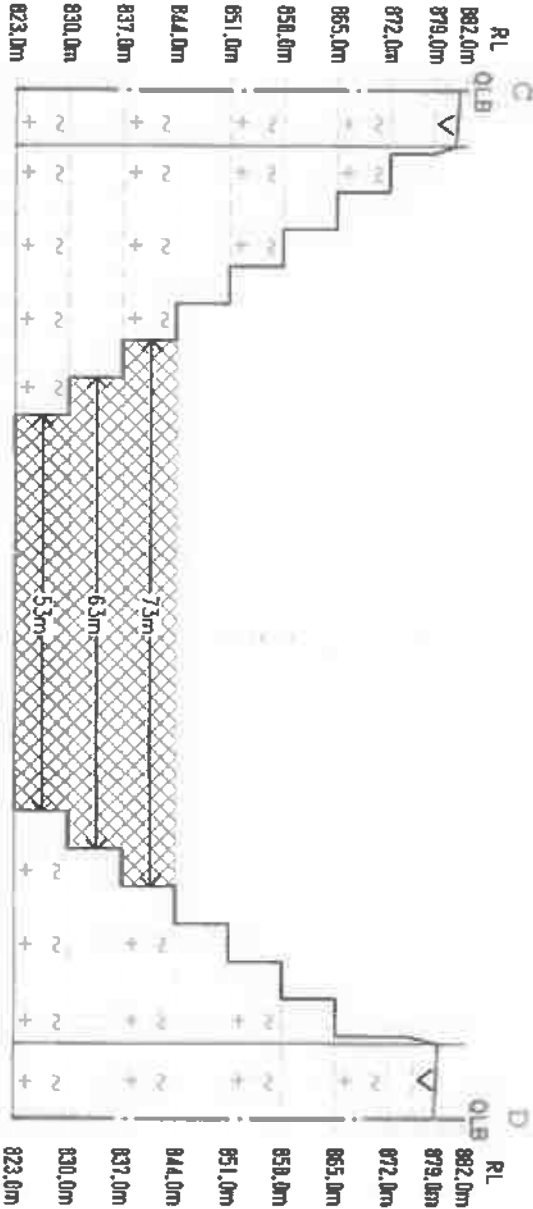
SECTION ALONG X-Y



SECTION ALONG A-B



SECTION ALONG C-D



YEARWISE DEVELOPMENT AND PRODUCTION (First Five (I-V) Years)							
Year	Section	Bench	Length In (m)	Width In (m)	Depth In (m)	Volume In (Cu.m.)	Recoverable Reserve In Cu.m.(100%)
VI-YEAR	XY-AB	VI	89	57	7	35511	35511
VII-YEAR	XY-AB	VII	84	47	7	27636	27636
VIII-YEAR	XY-CD	VII	86	73	7	43946	43946
IX-YEAR	XY-AB	VIII	79	37	7	20461	20461
	XY-CD	VIII	81	63	7	35721	35721
X-YEAR	XY-AB	IX	74	27	7	13986	13986
	XY-CD	IX	76	53	7	28196	28196
Total =						205457	205457



PLATE NO: IV-B1

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY :

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

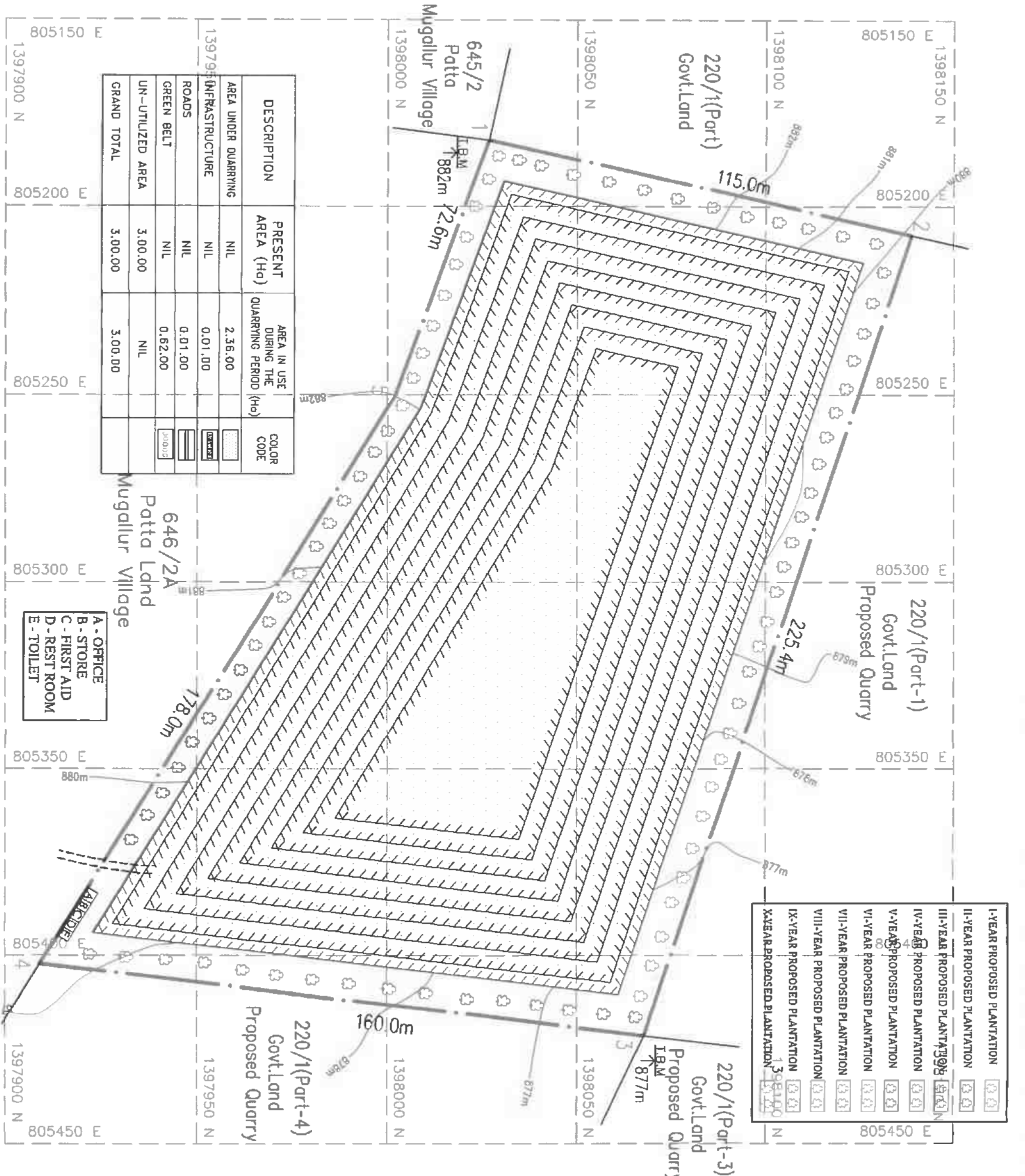
YEARWISE DEVELOPMENT
AND PRODUCTION SECTIONS
(Second Five (VI-X) Years)

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
ROP/CNN/270/2016/A



DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRING	NIL	2.36.00	[Pattern]
INFRASTRUCTURE	NIL	0.01.00	[Pattern]
ROADS	NIL	0.01.00	[Pattern]
GREEN BELT	NIL	0.62.00	[Pattern]
UN-UTILIZED AREA	3.00.00	NIL	[Pattern]
GRAND TOTAL	3.00.00	3.00.00	

I-YEAR PROPOSED PLANTATION	[Pattern]
II-YEAR PROPOSED PLANTATION	[Pattern]
III-YEAR PROPOSED PLANTATION	[Pattern]
IV-YEAR PROPOSED PLANTATION	[Pattern]
V-YEAR PROPOSED PLANTATION	[Pattern]
VI-YEAR PROPOSED PLANTATION	[Pattern]
VII-YEAR PROPOSED PLANTATION	[Pattern]
VIII-YEAR PROPOSED PLANTATION	[Pattern]
IX-YEAR PROPOSED PLANTATION	[Pattern]
X-YEAR PROPOSED PLANTATION	[Pattern]

- A - OFFICE
- B - STORE
- C - FIRST AID
- D - REST ROOM
- E - TOILET

4 AUG 2022

PLATE NO: 1397900 N 805450 E
 DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:
 THIRU. C.NITHIN REDDY,
 S/O. CHANDRA REDDY,
 D.No.83, AVADADENAHALLI VILLAGE,
 MARSUR POST,
 ANEKAL TALUK,
 BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:
 EXTENT : 3.00.00 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 DISTRICT : KRISHNAGIRI.

INDEX

QUARRY LEASE BOUNDARY	[Pattern]
7.5m & 10.0m SAFETY DISTANCE	[Pattern]
TEMPORARY BENCH MARK	[Pattern]
TOP SOIL (GRAVEL)	[Pattern]
ROUGH STONE	[Pattern]
CONTOUR LINE	[Pattern]
QUARRY ROAD	[Pattern]
MINE LAYOUT	[Pattern]

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
 ROP/CNN/270/2016/A

12° 37' 56.7500" N
77° 48' 33.7498" E

PLATE NO:VI

DATE OF SURVEY: 09-05-2022

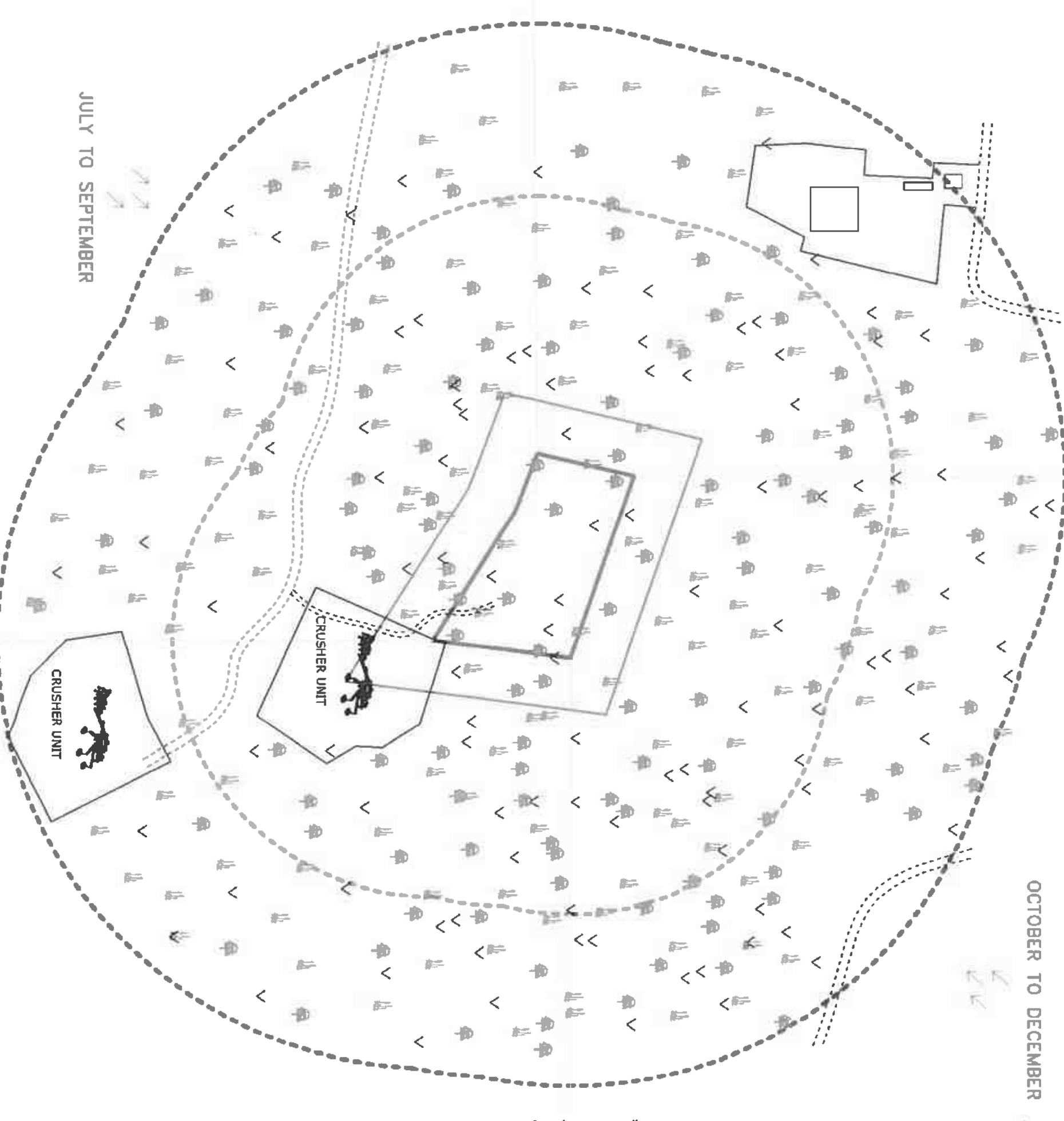
OCTOBER TO DECEMBER

12° 37' 53.1120" N
77° 48' 32.8686" E

12° 37' 54.3668" N
77° 48' 40.8039" E

JULY TO SEPTEMBER

12° 37' 49.2086" N



APPLICANT ADDRESS:
 THIRU. CANTHILIN
 S/O. SHAMRA REDDY,
 D/NO. 83, AVADADENAHALLI
 MANSUR POST, A/16 2022
 ANIMAL TALUK,
 BANGALORE DISTRICT 562 006.
 LOCATION OF QUARRY: 552.8206.

EXTENT : 3.00.00 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 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 AGRICULTURAL 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
 ROP/CNN/270/2016/A

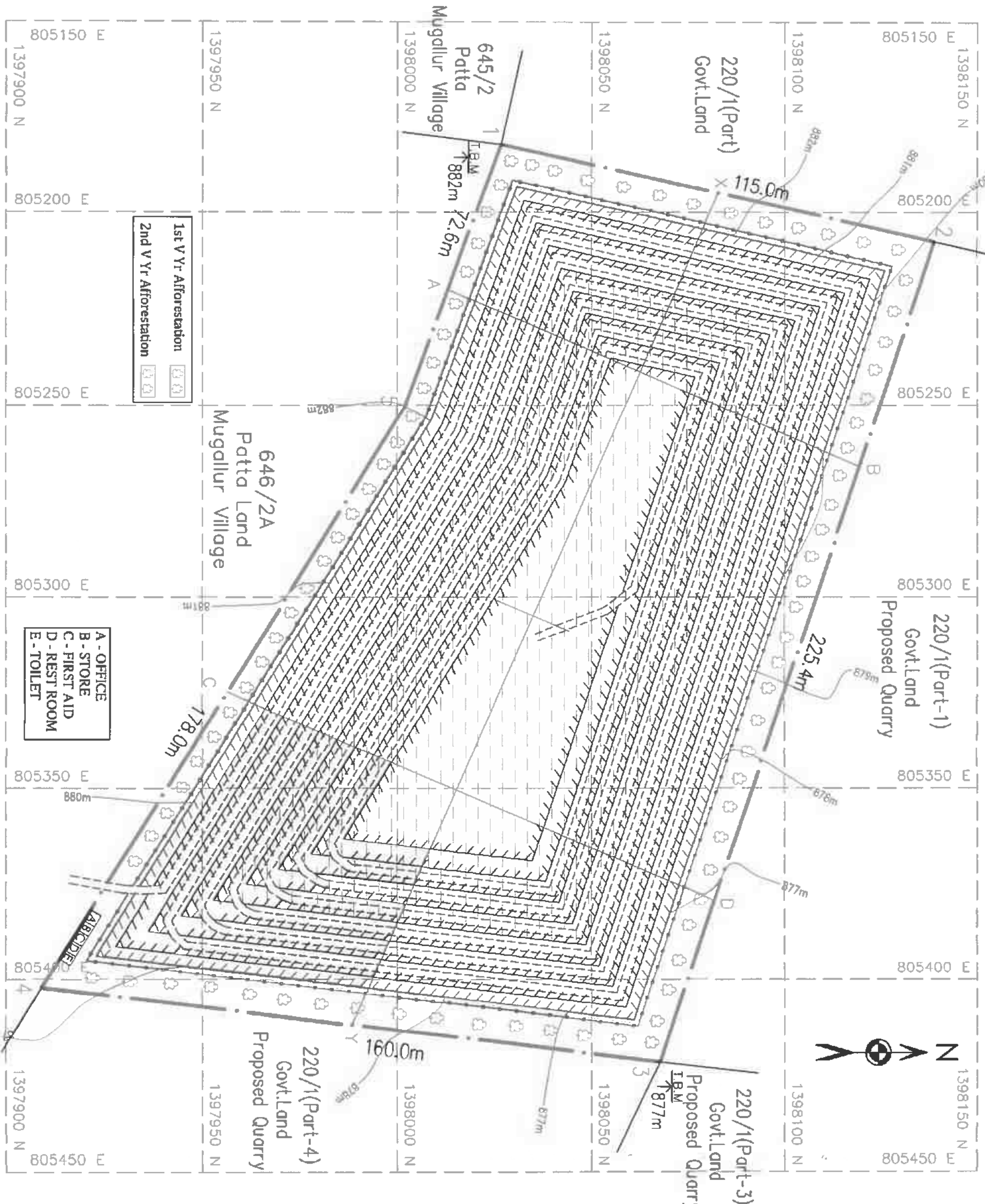


PLATE NO. 270/2015/A
 DATE OF SURVEY: 09-05-2022
 04 AUG 2022
 APPLICANT ADDRESS:
 THIRU C. VEERANANDAN
 S/O. GNANIDRA REDDY
 D.No. 83, ANEKAL TALUK, MARSUR POST, ANEKAL TALUK, BANGALORE DISTRICT - 562 106.

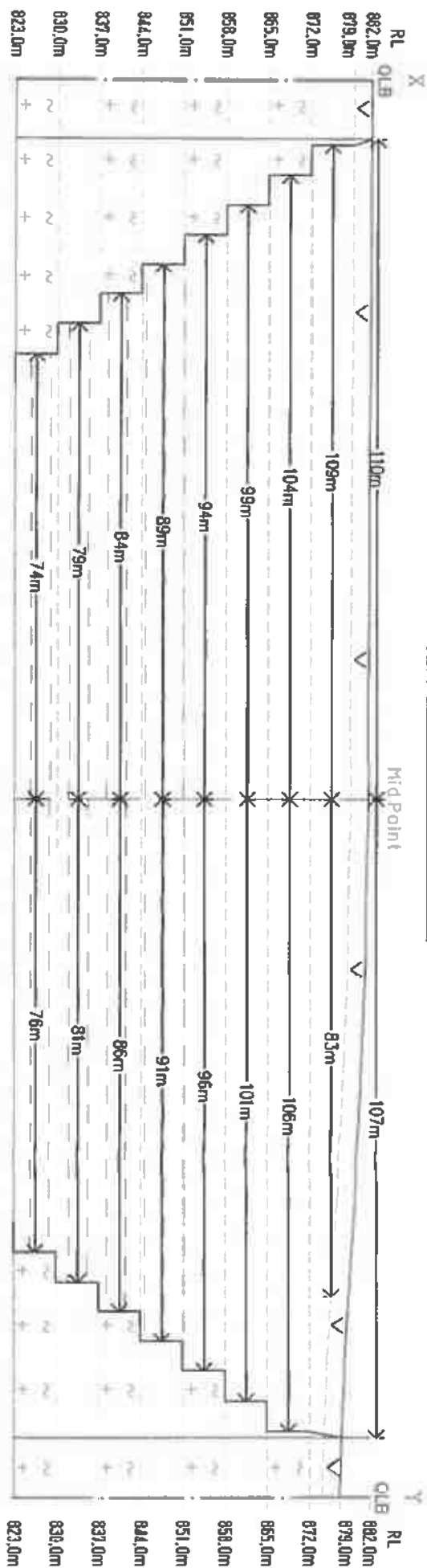
LOCATION OF QUARRY:
 EXTENT : 3.00.00 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 DISTRICT : KRISHNAGIRI.

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

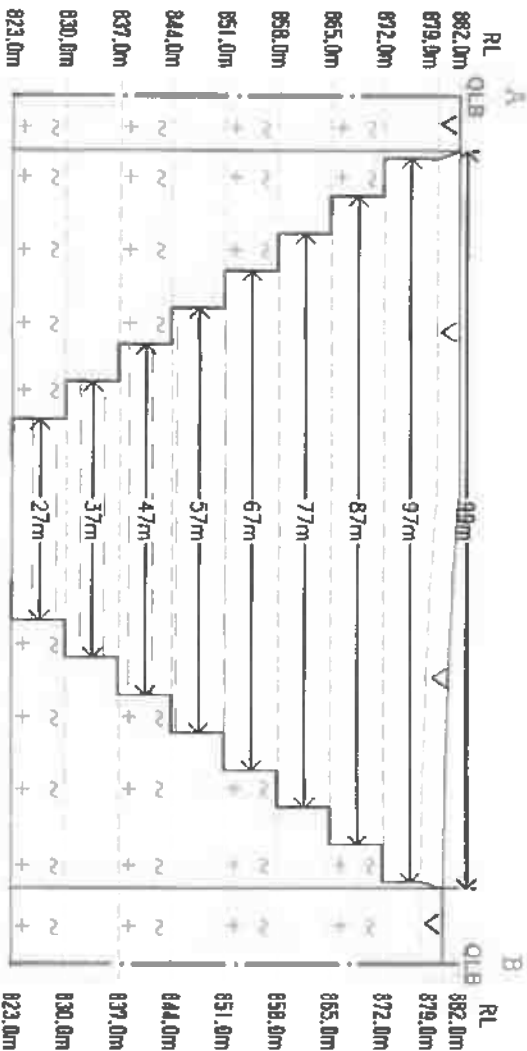
CONCEPTUAL & FINAL MINE CLOSURE PLAN
 SCALE 1:1000

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
 ROP/CNN/270/2015/A

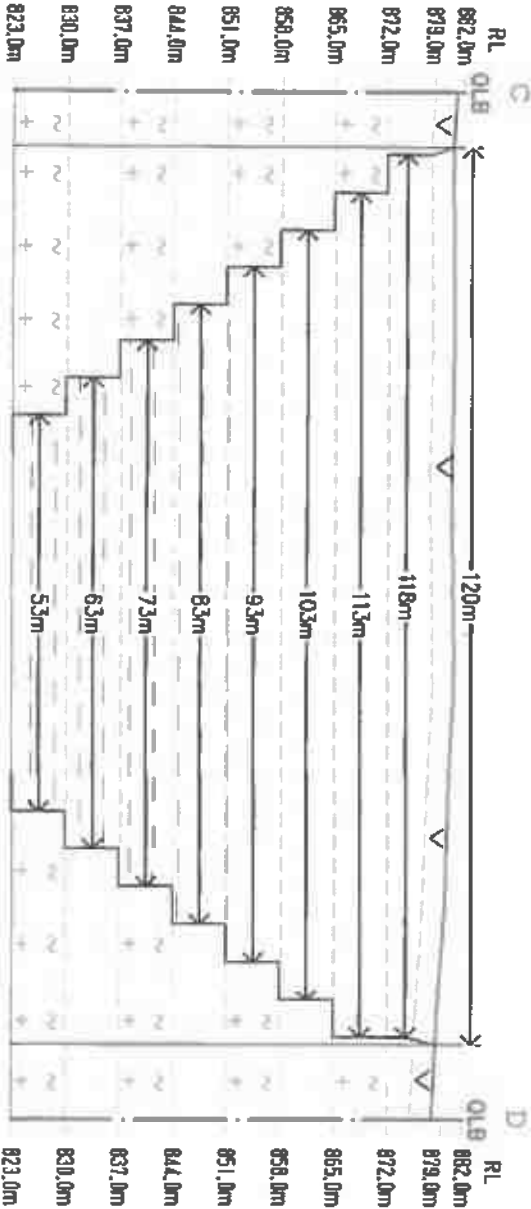
SECTION ALONG X-Y



SECTION ALONG A-B



SECTION ALONG C-D



**ULTIMATE PIT DIMENSION
= 217.0m (L) X 109.0m (W) (Avg) X 54.0m (D)**

MINVABLE 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	110	99	3	74011	74011	32670
	II	109	97	7	63336	63336	
	III	104	87	7	53361	53361	
	IV	99	77	7	44086	44086	
	V	94	67	7	35511	35511	
	VI	89	57	7	27636	27636	
	VII	84	47	7	20461	20461	
	VIII	79	37	7	13986	13986	
	IX	74	27	7	332388	332388	32670
Total=		107	120	3	68558	68558	38520
XY-CD	I	107	120	3	83846	83846	
	II	83	118	7	72821	72821	
	III	106	113	7	62496	62496	
	IV	101	103	7	52871	52871	
	V	96	93	7	43946	43946	
	VI	91	83	7	35721	35721	
	VII	86	73	7	28196	28196	
	VIII	81	63	7	449455	449455	38520
	IX	76	53	7	780843	780843	71190
Total=		76	53	7	449455	449455	38520
Grand Total=					780843	780843	71190

Surface Ground Level Above Mean Sea Level = 5m
Surface Ground Level Below Mean Sea Level = 54m

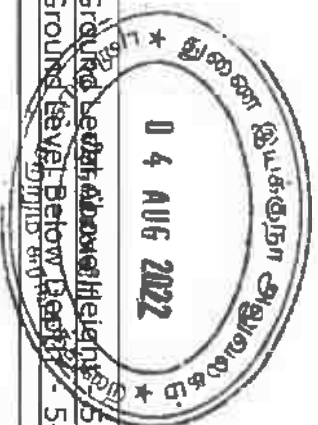


PLATE NO: VII-A

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C. NITHIN REDDY,
S/O. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

**CONCEPTUAL & FINAL
MINE CLOSURE SECTIONS**

SCALE 1:1000

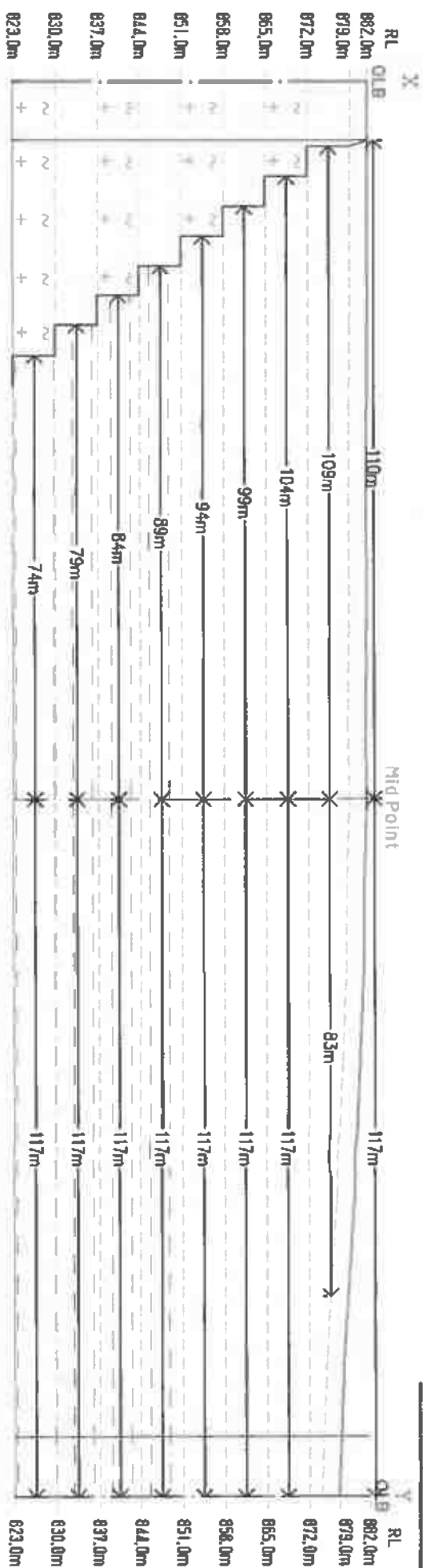
Prepared By:

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

SECTION ALONG X-Y



Conceptual Plan and Sections Showing Regulation to Quarry Common Boundary as Stipulated in Rule (III) of Metalliferous Mines Regulations 1961, after getting Permission from DGMS, if needed



PLATE NO: VIII-A

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

CONCEPTUAL SECTIONS COMMON BOUNDARY

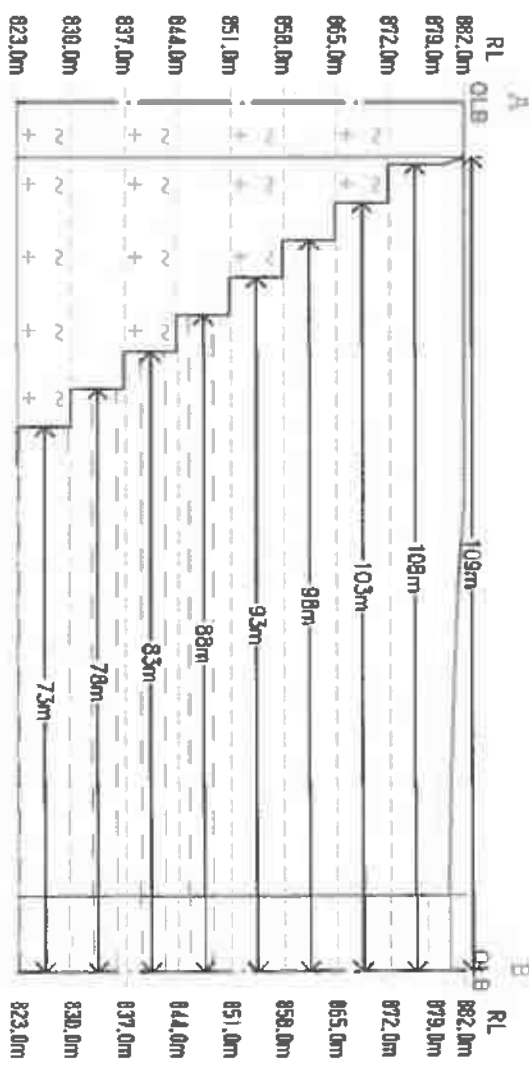
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Prepared By:

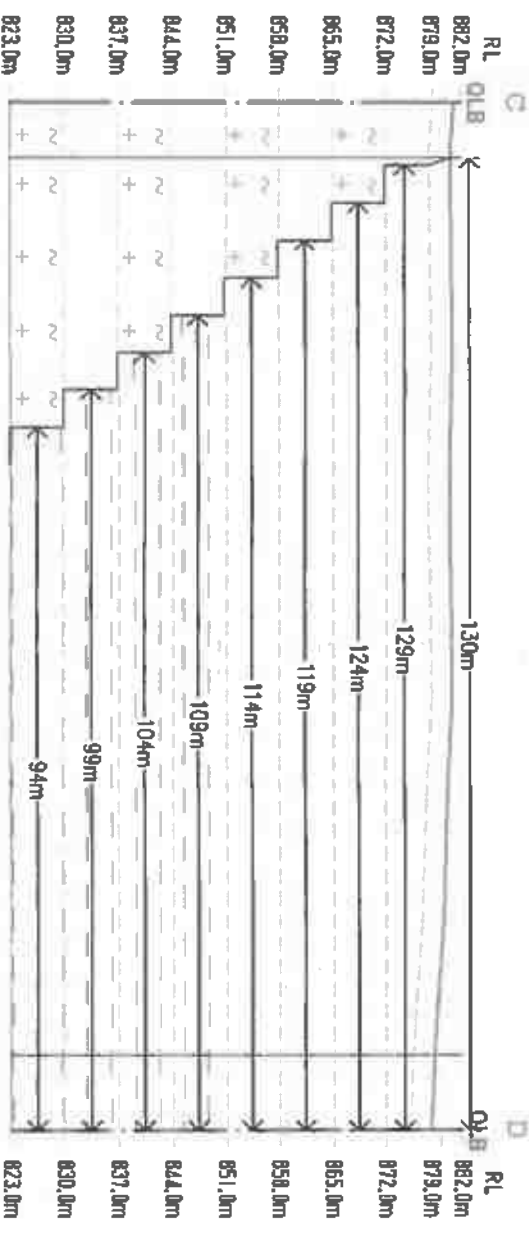
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

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

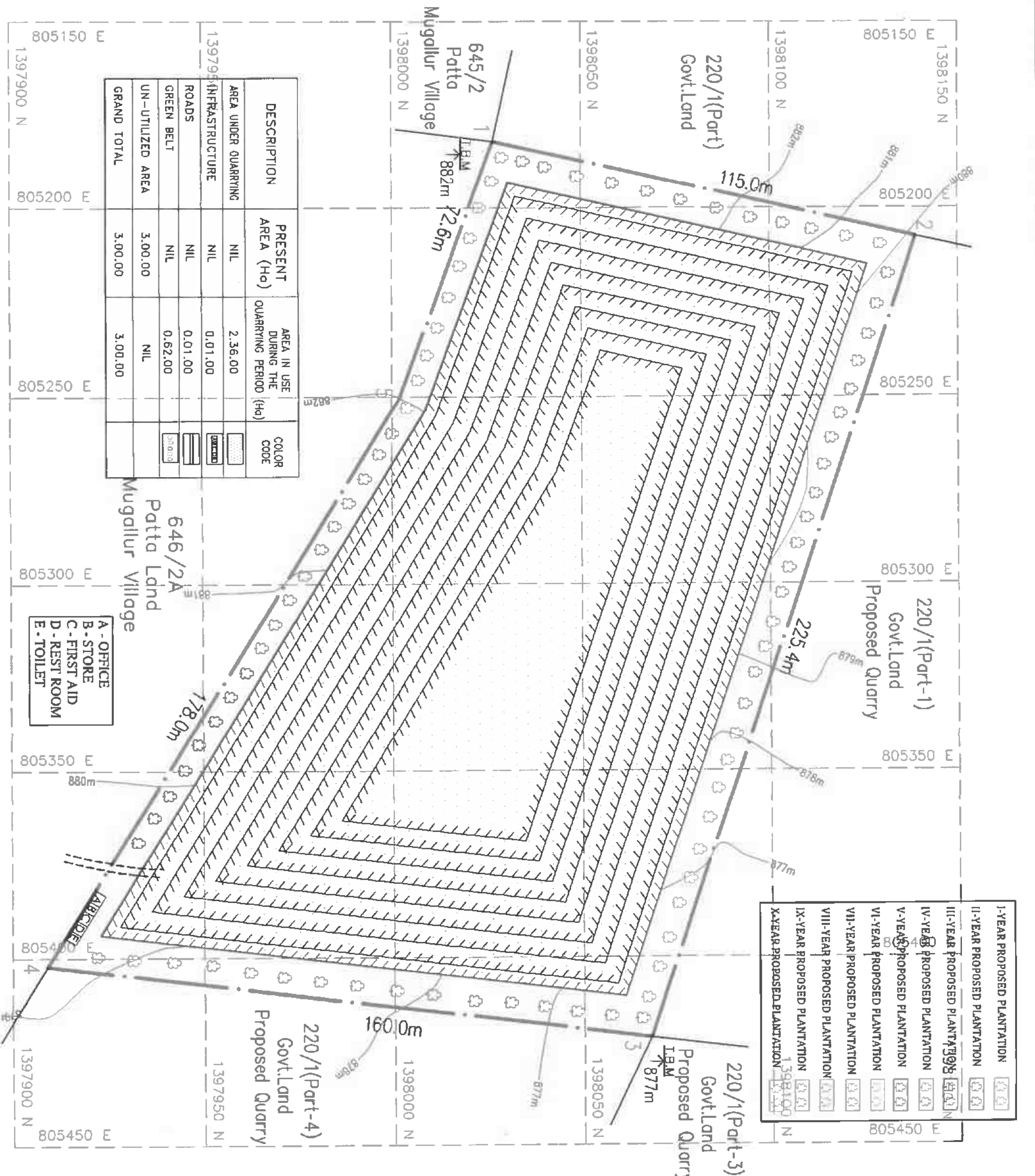
SECTION ALONG A-B



SECTION ALONG C-D



MINABLE RESERVES - COMMON BOUNDARY								
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Recoverable Reserve in Cum(100%)	Topsoil (Gravel) in Cum.	
XY-AB	I	110	109	3	82404	82404	35970	
	II	109	108	7	74984	74984		
	III	104	103	7	67914	67914		
	IV	99	98	7	61194	61194		
	V	94	93	7	54824	54824		
	VI	89	88	7	48804	48804		
	VII	84	83	7	43134	43134		
	VIII	79	78	7	37814	37814		
	IX	74	73	7	471072	471072		35970
Total=		117	130	3	74949	74949	45630	
XY-CD	II	83	129	7	101556	101556	45630	
	III	117	124	7	97461	97461		
	IV	117	119	7	93366	93366		
	V	117	114	7	89271	89271		
	VI	117	109	7	85176	85176		
	VII	117	104	7	81081	81081		
	VIII	117	99	7	76986	76986		
	IX	117	94	7	699846	699846		45630
	Total=		117	94	7	1170918		1170918	81600
Grand Total=								



DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	NIL	2.36.00	
INFRASTRUCTURE	NIL	0.01.00	
ROADS	NIL	0.01.00	
GREEN BELT	NIL	0.62.00	
UN-UTILIZED AREA	3.00.00	NIL	
GRAND TOTAL	3.00.00	3.00.00	

1-YEAR PROPOSED PLANTATION	
11-YEAR PROPOSED PLANTATION	
111-YEAR PROPOSED PLANTATION	
1111-YEAR PROPOSED PLANTATION	
11111-YEAR PROPOSED PLANTATION	
111111-YEAR PROPOSED PLANTATION	
1111111-YEAR PROPOSED PLANTATION	
11111111-YEAR PROPOSED PLANTATION	
111111111-YEAR PROPOSED PLANTATION	
1111111111-YEAR PROPOSED PLANTATION	
11111111111-YEAR PROPOSED PLANTATION	
111111111111-YEAR PROPOSED PLANTATION	
1111111111111-YEAR PROPOSED PLANTATION	
11111111111111-YEAR PROPOSED PLANTATION	
111111111111111-YEAR PROPOSED PLANTATION	
1111111111111111-YEAR PROPOSED PLANTATION	

N

04 AUG 2022

PLATE NO. 1398100 N 805450 E

DATE OF SURVEY: 09.08.2022

APPLICANT ADDRESS:
 THIRU. C. NITHIN REDDY,
 S/O. CHANDRA REDDY,
 D.No.83, AVADADENAHALLI VILLAGE,
 MARSUR POST,
 ANEKAL TALUK,
 BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
 S.F.NO : 220/1 (Part-2)
 VILLAGE : GOPANAPALLI,
 TALUK : HOSUR,
 DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- TOP SOIL (GRAVEL)
- ROUGH STONE
- 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

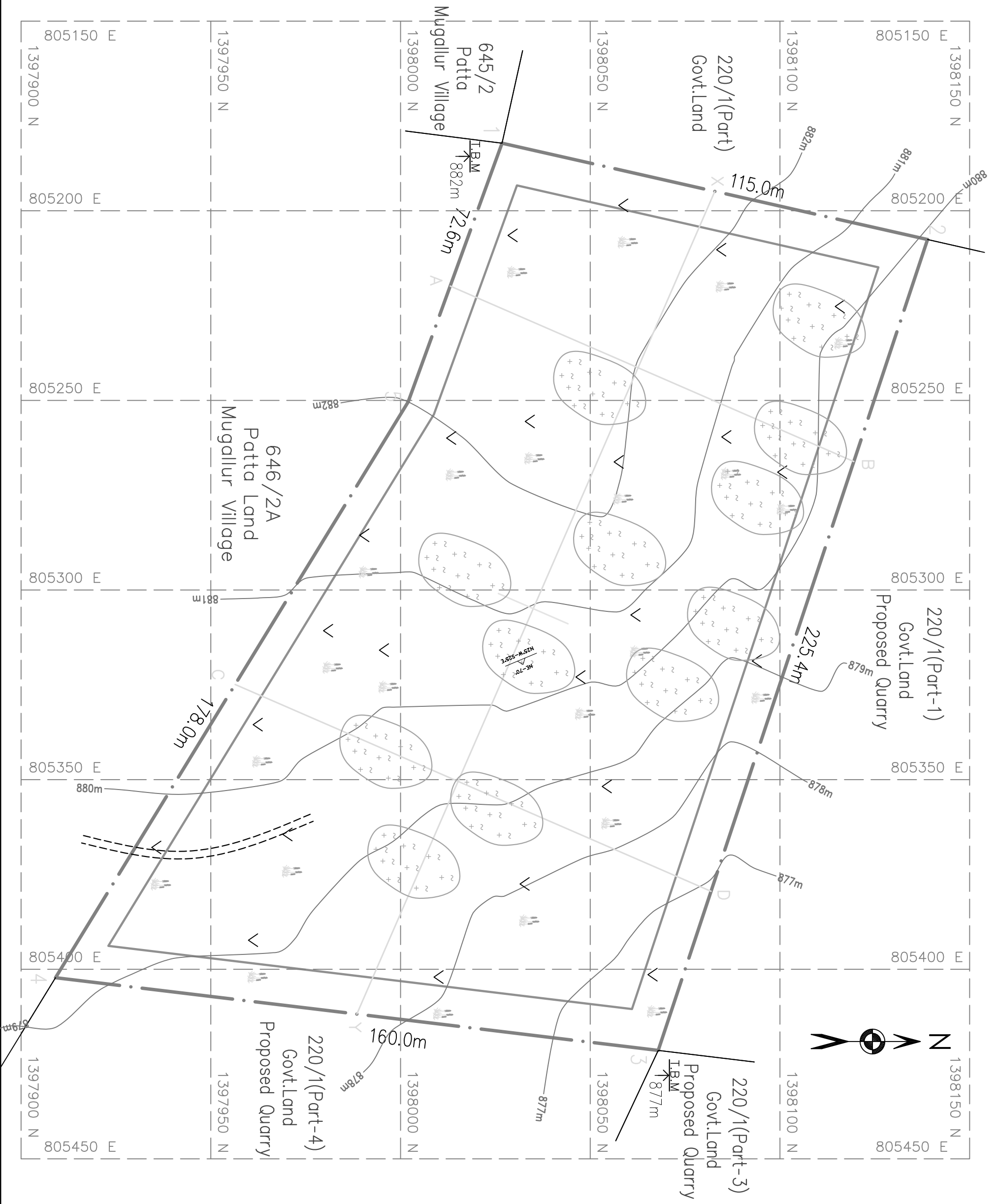


PLATE NO:III

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- TOP SOIL (GRAVEL)
- ROUGH STONE
- ROCK OUTCROPS
- CONTOUR LINE
- STRIKE & DIP
- QUARRY ROAD
- SHRUB

SURFACE AND GEOLOGICAL PLAN

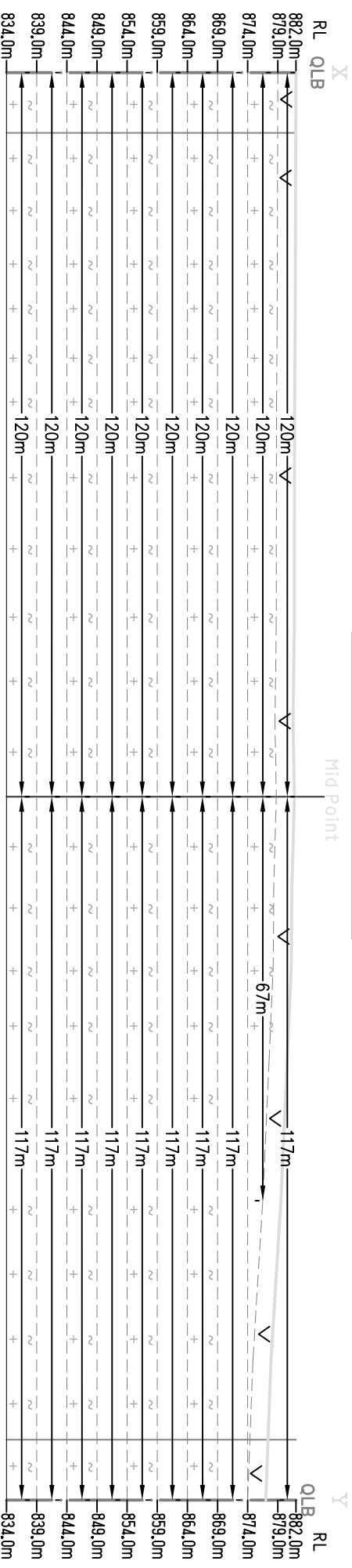
SCALE 1:1000

Prepared By:

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

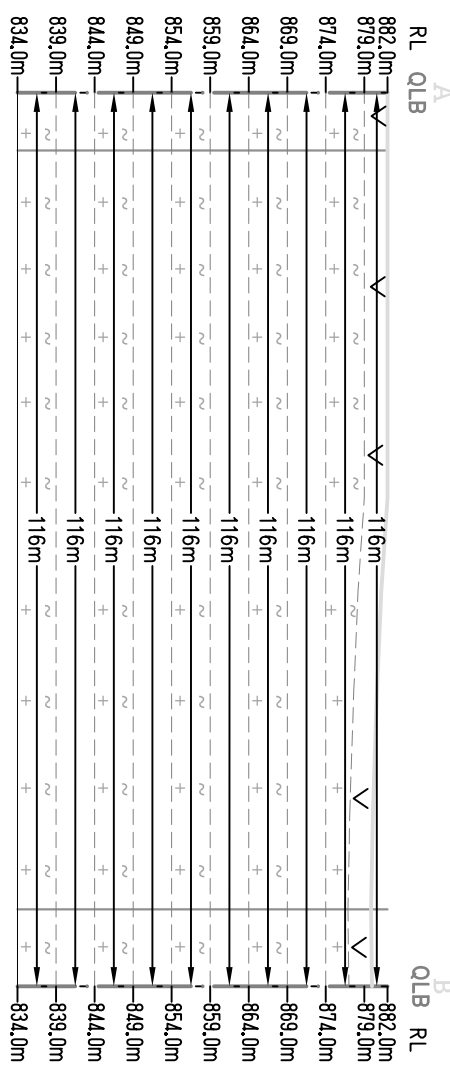
S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

SECTION ALONG X-Y

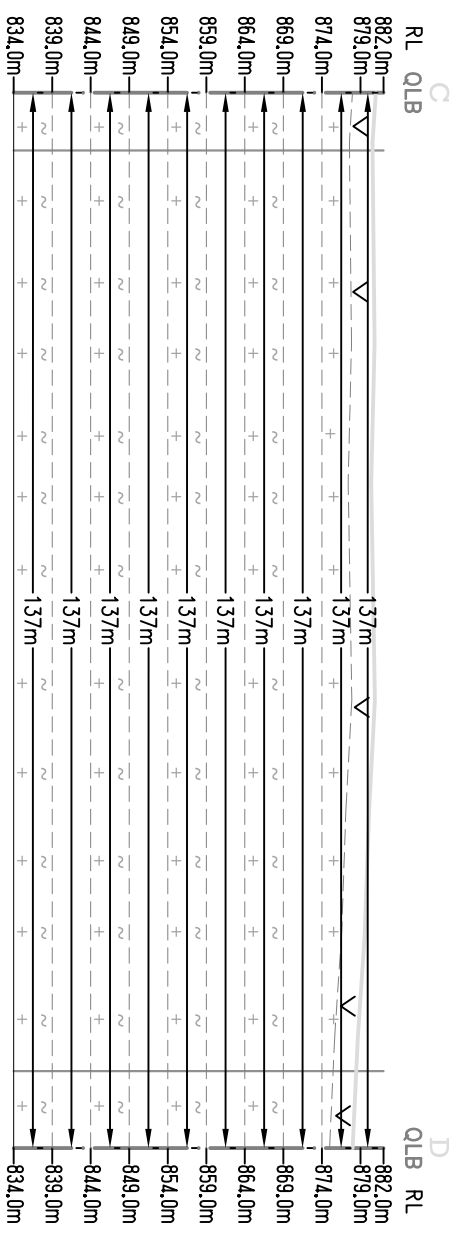


Surface Ground Level Above Height - 5m
Surface Ground Level Below Depth - 43m

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	120	116	3	69600	69600	41760
	II	120	116	5	69600	69600	
	III	120	116	5	69600	69600	
	IV	120	116	5	69600	69600	
	V	120	116	5	69600	69600	
	VI	120	116	5	69600	69600	
	VII	120	116	5	69600	69600	
	VIII	120	116	5	69600	69600	
	IX	120	116	5	69600	69600	
		Total=	116	5	626400	626400	41760
XY-CD	I	117	137	3			48087
	II	67	137	5	45895	45895	
	III	117	137	5	80145	80145	
	IV	117	137	5	80145	80145	
	V	117	137	5	80145	80145	
	VI	117	137	5	80145	80145	
	VII	117	137	5	80145	80145	
	VIII	117	137	5	80145	80145	
	IX	117	137	5	80145	80145	
		Total=	117	137	687055	687055	48087
Grand Total=					1313455	1313455	89847

PLATE NO:III-A

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

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

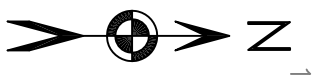
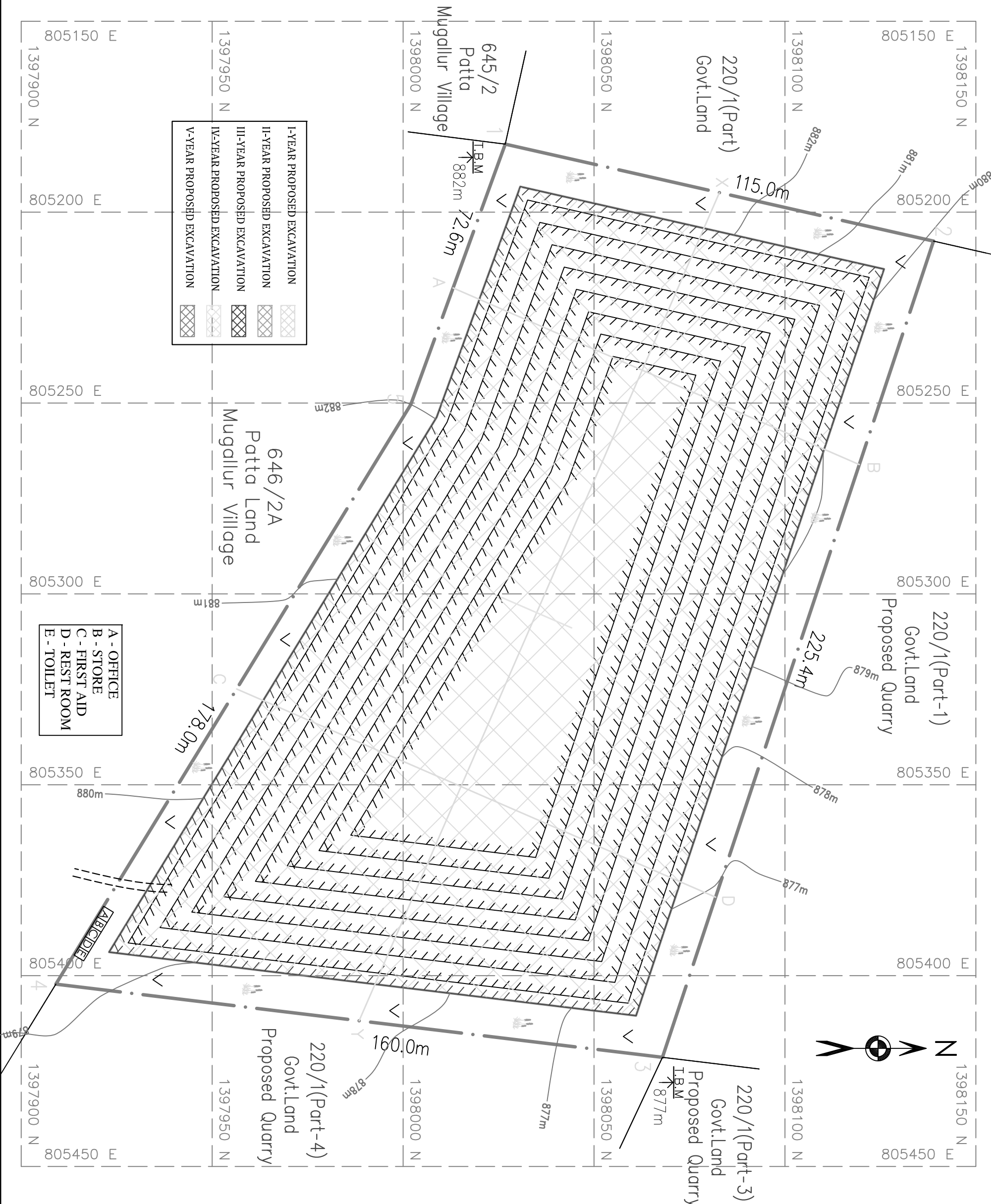


PLATE NO:IV-A

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

(First Five (I-V) Years)

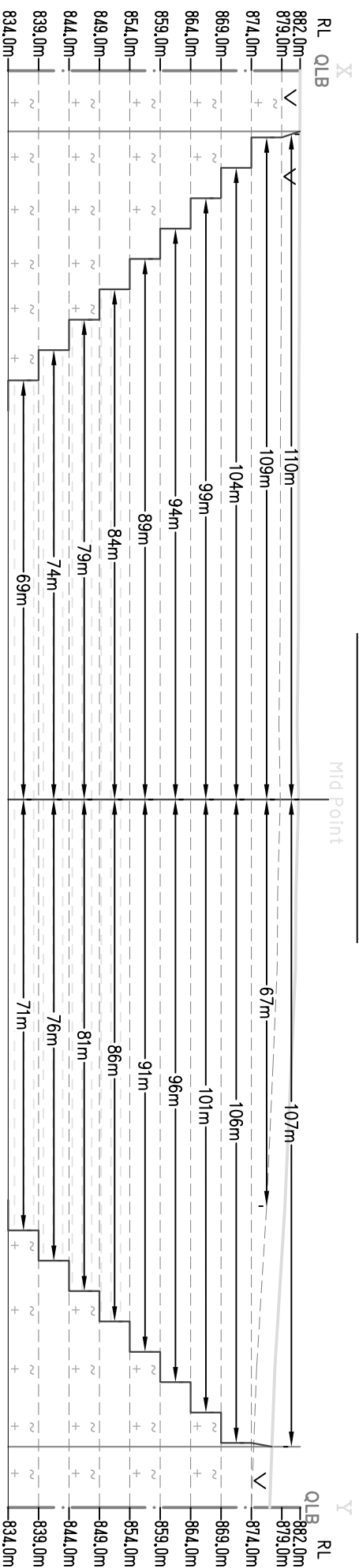
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Prepared By:

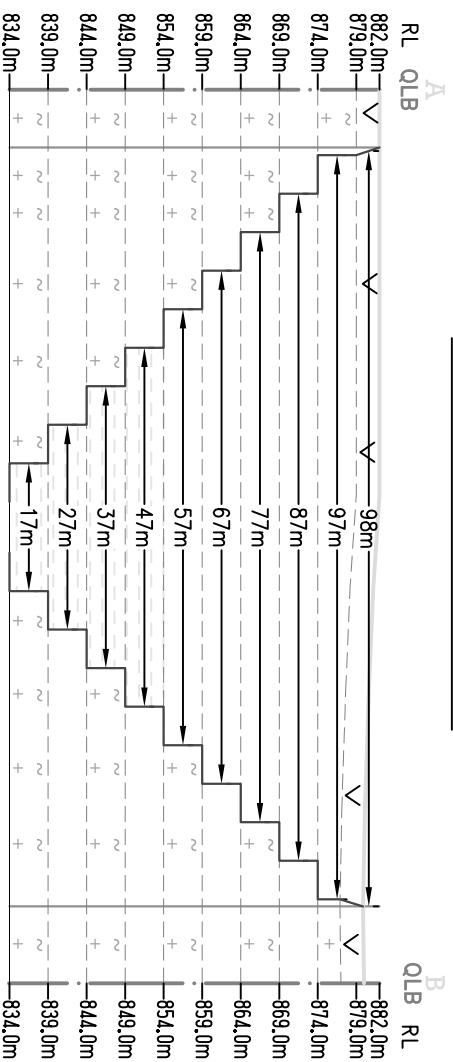
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

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

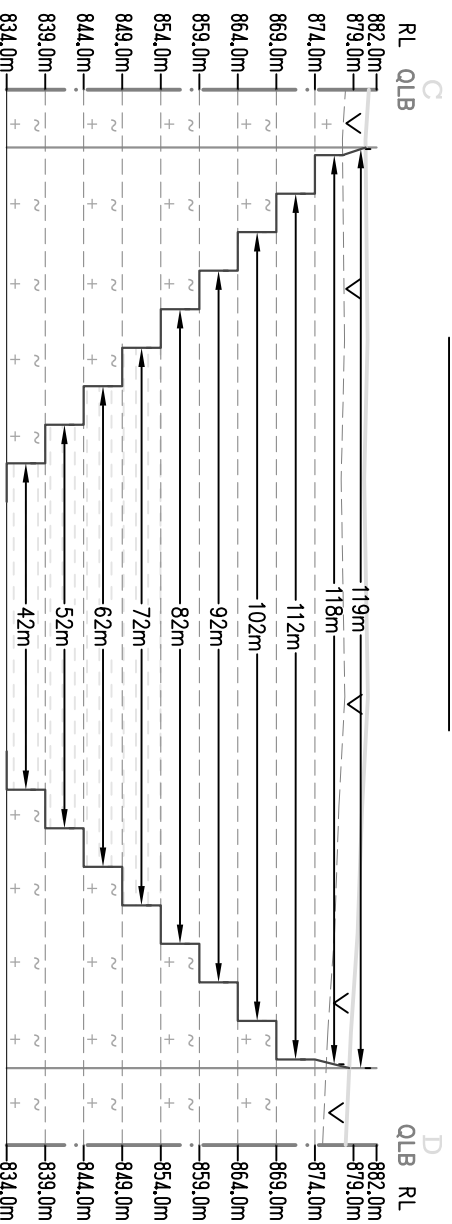
SECTION ALONG X-Y



SECTION ALONG A-B



SECTION ALONG C-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	110	98	3	52865	52865	32340
	II	109	97	5	45240	45240	
	III	104	87	5	38115	38115	
	IV	99	77	5	31490	31490	
	V	89	57	5	25365	25365	
	VII	84	47	5	19740	19740	
	VIII	79	37	5	14615	14615	
	IX	74	27	5	9990	9990	
	X	69	17	5	5865	5865	
	Total=					243285	243285	32340
XY-CD	I	107	119	3	39530	39530	38199
	II	67	118	5	59360	59360	
	III	106	112	5	51510	51510	
	IV	101	102	5	44160	44160	
	V	96	92	5	37310	37310	
	VI	91	82	5	30960	30960	
	VII	86	72	5	25110	25110	
	VIII	81	62	5	19760	19760	
	IX	76	52	5	14910	14910	
	X	71	42	5	322610	322610	38199
Total=					565895	565895	70539

ULTIMATE PIT DIMENSION
= 217.0m(L) X 109.0m(W)(Avg) X 48.0m(D)

Surface Ground Level Above Height - 5m
Surface Ground Level Below Depth - 43m

PLATE NO:VII-A

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

CONCEPTUAL & FINAL MINE CLOSURE SECTIONS

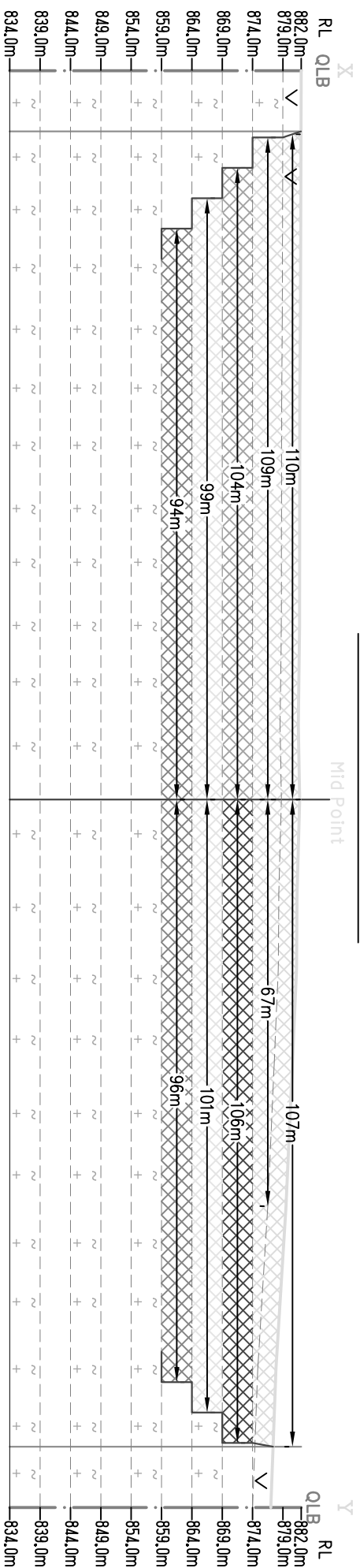
SCALE 1:1000

Prepared By:

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

SECTION ALONG X-Y



Surface Ground Level Above Height - 5m
Surface Ground Level Below Depth - 18m

PLATE NO:IV-A1

DATE OF SURVEY: 09-05-2022

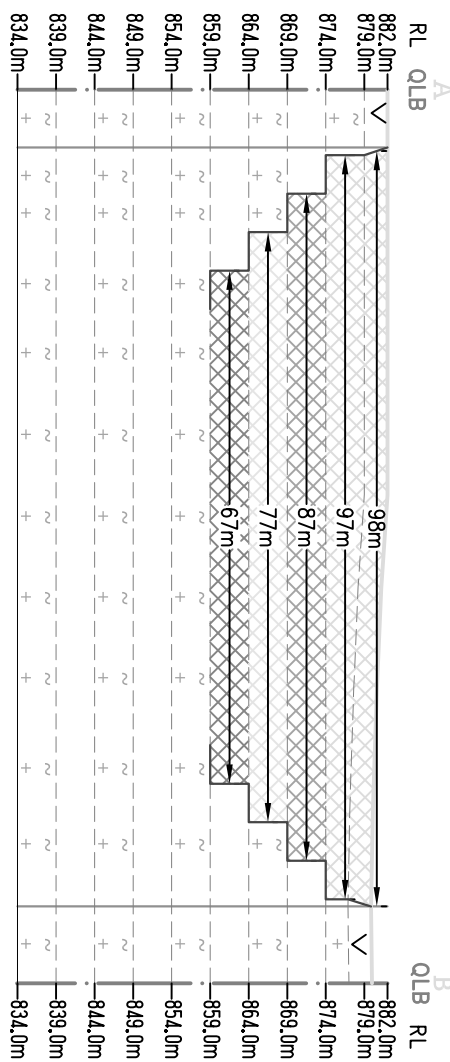
APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
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MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

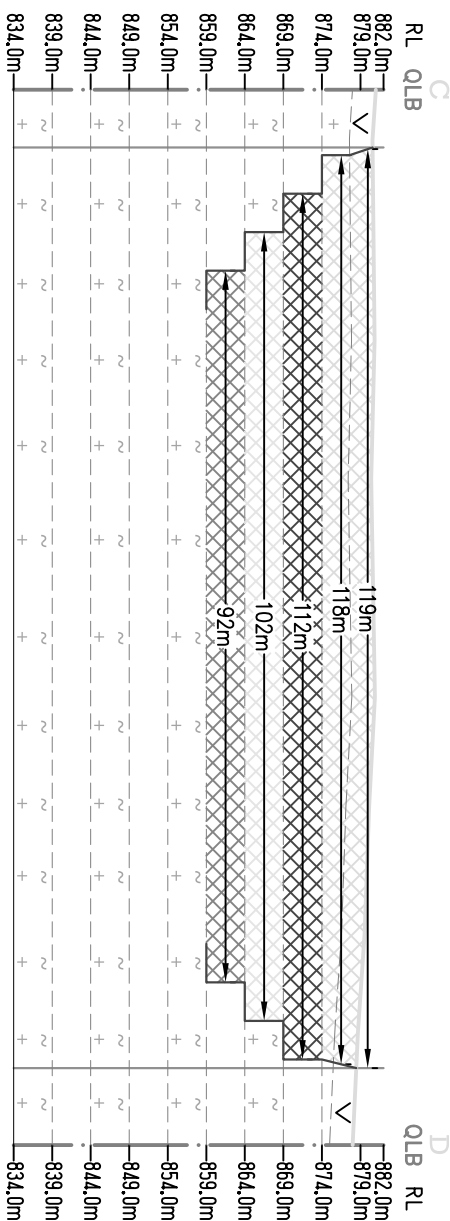
LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

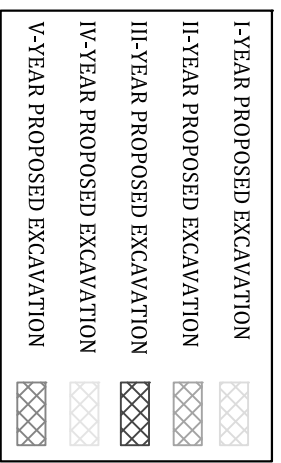
SECTION ALONG A-B



SECTION ALONG C-D



YEARWISE DEVELOPMENT AND PRODUCTION (First Five (I-V)Years)								
Year	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.
I-YEAR	XY-AB	I	110	98	3	52865	52865	32340
		II	109	97	5			
I-YEAR	XY-CD	I	107	119	3	39530	39530	38199
		II	67	118	5			
II-YEAR	XY-AB	III	104	87	5	45240	45240	
III-YEAR	XY-AB	III	106	112	5	59360	59360	
IV-YEAR	XY-AB	IV	99	77	5	38115	38115	
		IV	101	102	5			
V-YEAR	XY-AB	V	94	67	5	31490	31490	
		V	96	92	5			
Total=						362270	362270	70539



INDEX

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

YEARWISE DEVELOPMENT AND PRODUCTION SECTIONS (First Five (I-V)Years)

SCALE 1:1000

Prepared By:

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

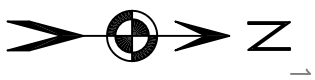
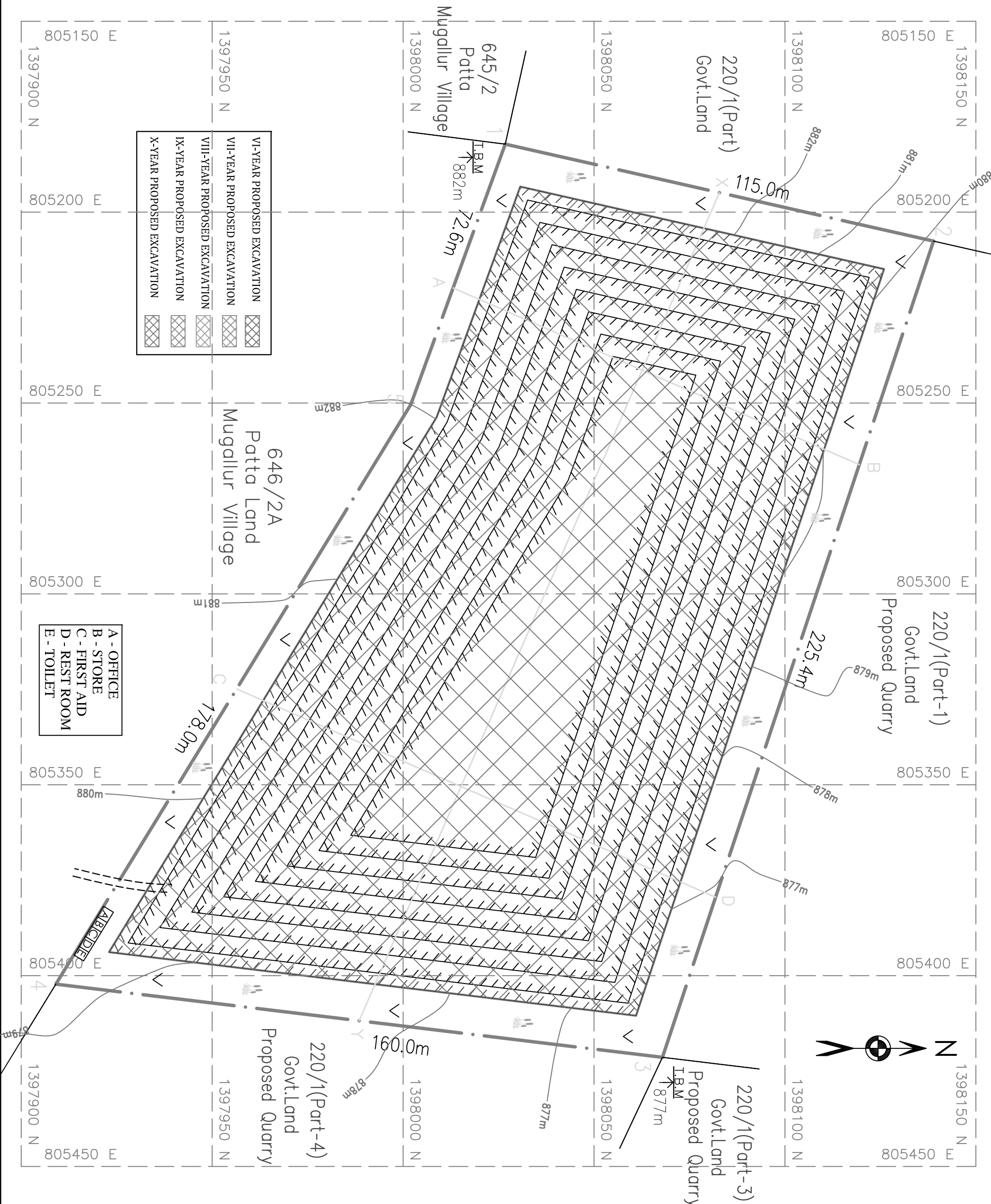


PLATE NO:IV-B

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

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

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

(Second Five (VI-X) Years)

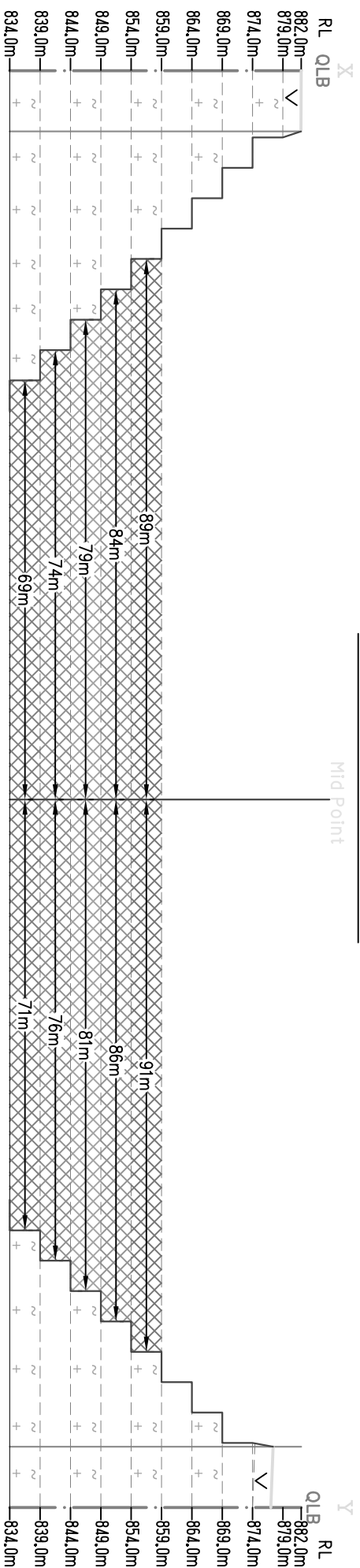
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RQP/CNN/270/2016/A

SECTION ALONG X-Y



SURFACE GROUND LEVEL BELOW DEPTH - 25M

PLATE NO:IV-B1

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

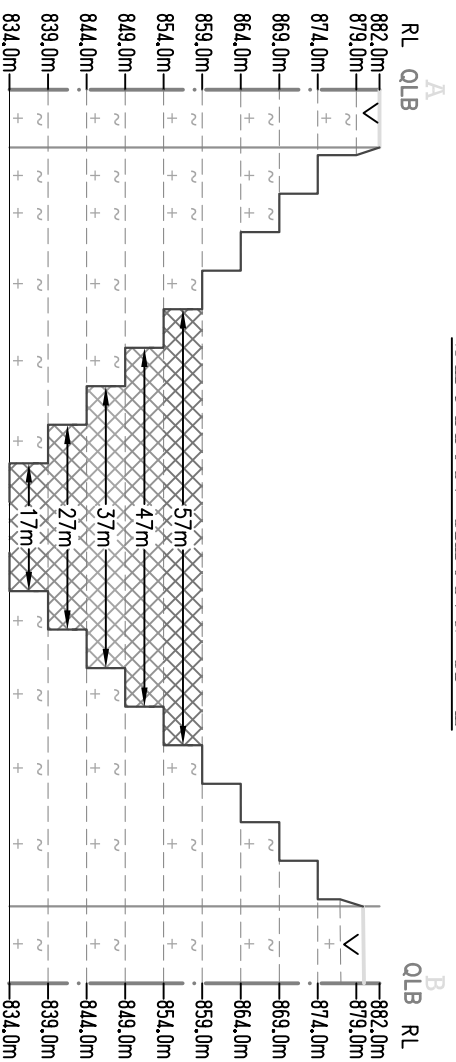
THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

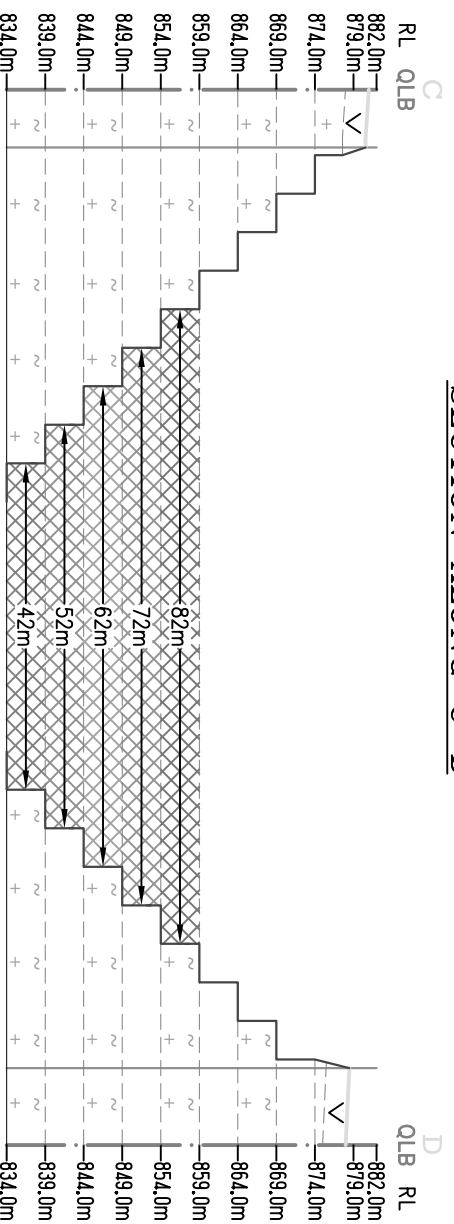
EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

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SECTION ALONG A-B



SECTION ALONG C-D



YEARWISE DEVELOPMENT AND PRODUCTION (Second Five (VI-X)Years)							
Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in (Cu.m.)	Recoverable Reserve in Cu.m.(100%)
VI-YEAR	XV-AB	VI	89	57	5	25365	25365
	XV-CD	VI	91	82	5	37310	37310
VII-YEAR	XV-AB	VII	84	47	5	19740	19740
	XV-CD	VII	86	72	5	30960	30960
VIII-YEAR	XV-AB	VIII	79	37	5	14615	14615
	XV-CD	VIII	81	62	5	25110	25110
IX-YEAR	XV-AB	IX	74	27	5	9990	9990
	XV-CD	IX	76	52	5	19760	19760
X-YEAR	XV-AB	X	69	17	5	5865	5865
	XV-CD	X	71	42	5	14910	14910
Total=						203625	203625

VI-YEAR PROPOSED EXCAVATION	
VII-YEAR PROPOSED EXCAVATION	
VIII-YEAR PROPOSED EXCAVATION	
IX-YEAR PROPOSED EXCAVATION	
X-YEAR PROPOSED EXCAVATION	

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

**YEARWISE DEVELOPMENT
AND PRODUCTION SECTIONS
(Second Five (VI-X)Years)**

SCALE 1:1000

Prepared By:

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

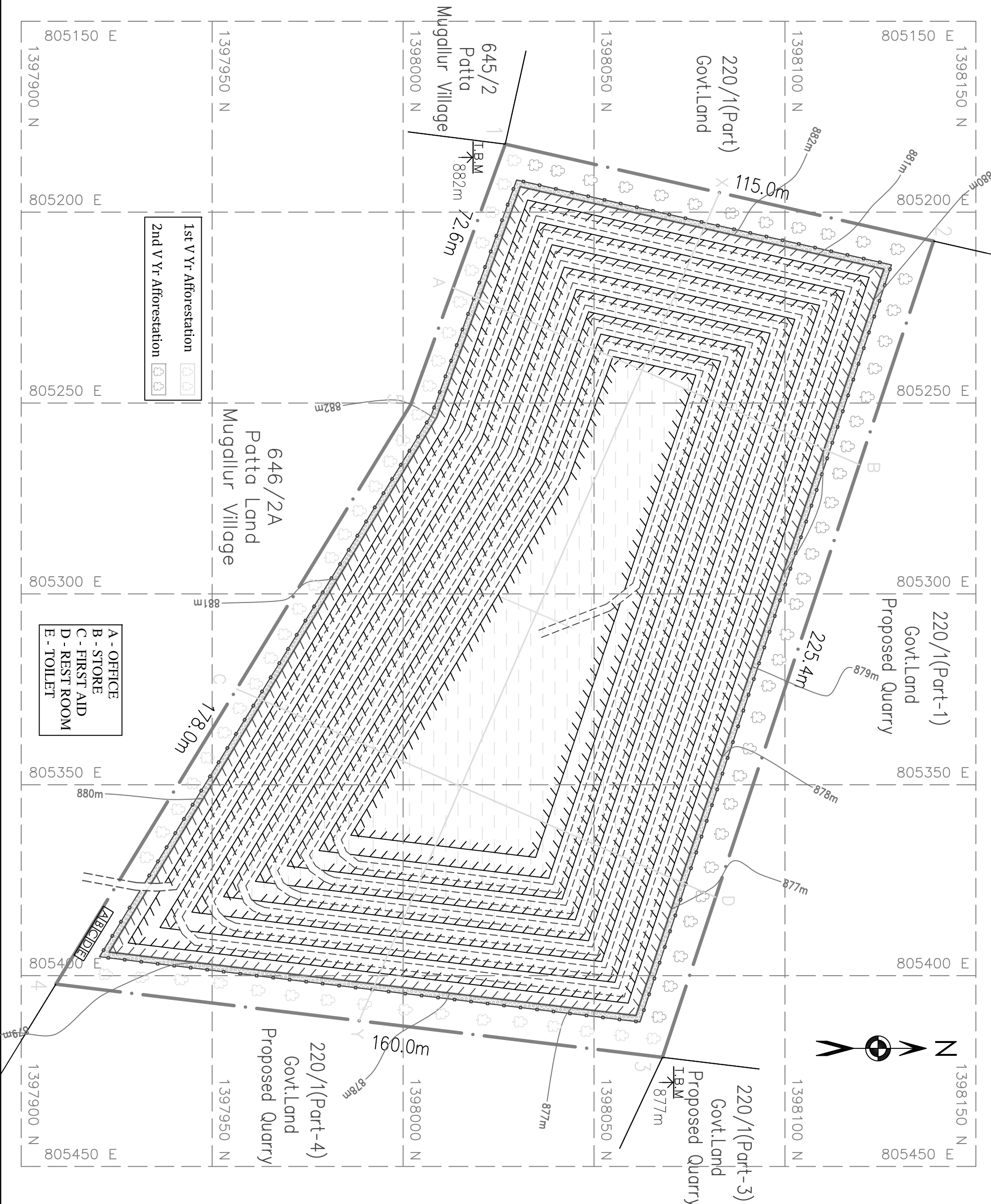


PLATE NO:VII

DATE OF SURVEY: 09-05-2022

APPLICANT ADDRESS:

THIRU. C.NITHIN REDDY,
S/o. CHANDRA REDDY,
D.No.83, AVADADENAHALLI VILLAGE,
MARSUR POST,
ANEKAL TALUK,
BANGALORE DISTRICT - 562 106.

LOCATION OF QUARRY:

EXTENT : 3.00.00 Ha,
S.F.NO : 220/1 (Part-2)
VILLAGE : GOPANAPALLI,
TALUK : HOSUR,
DISTRICT : KRISHNAGIRI.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- TOP SOIL (GRAVEL)
- ROUGH STONE
- 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:

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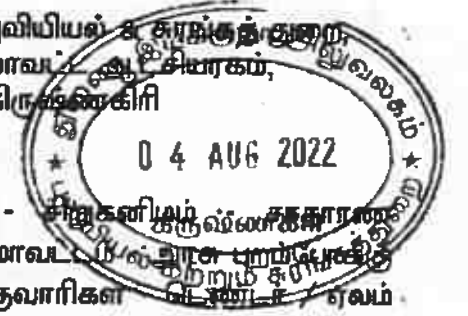
S.MATHAN PRAKASH, M.Sc., M.Phil.,
RECOGNIZED QUALIFIED PERSON
RQP/CNN/270/2016/A

Annexure V
Precise area letter

ந.க.எண். 536/2022/கனிமம் நாள்: 06 .05.2022

புவியியல் & சுரங்கத் துறை,
மாவட்ட ஆட்சியரகம்,
கிருஷ்ணகிரி

குறிப்பாணை



பொருள் கனிமங்களும் குவாரிகளும் - கிருஷ்ணகிரி மாவட்டத்தில் கனிமம் துறை வகை கற்கள் - கிருஷ்ணகிரி மாவட்டத்தில் உள்ள புலங்களில் அமைந்துள்ள கற்குவாரிகள் - ஏலம் முறையில் குத்தகை வழங்குவது தொடர்பாக அரசிதழ் வெளியீடு - ஒசூர் வட்டம் - கோபனப்பள்ளி கிராமம் - புல எண்.220/1(பகுதி-2) 3.00.0 ஹெக்டேர் பரப்பில் 05.04.2022 அன்று டெண்டருடன் இணைந்த ஏலம் நடத்தப்பட்டது - ஏலத்தில் அதிகபட்ச குத்தகை தொகை குறிப்பிட்ட திரு.நித்தின்ரெட்டி என்பவருக்கு 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, ஒசூர் கடிதம் ந.க.எண்.426/2022/அ2 நாள்:22.01.2022.
 2. வருவாய் கோட்டாட்சியர் ஒசூர் அறிக்கை ந.க.எண்.103/2022/பி2 நாள்:04.02.2022.
 3. வன உயிரின காப்பாளர், ஒசூர் கடிதம் ந.க.எண்.261/2022/எல் 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 காலக்கதிர் ஆகிய செய்தி நாளிதழ்களில் 29.03.2022 அன்று வெளியிடப்பட்ட மாவட்ட ஆட்சியரின் அறிவிக்கை.
 8. திரு.பிரகாஷ்ரெட்டி மற்றும் நான்கு நபர்கள் ஆகியோரது டெண்டர் விண்ணப்பம் நாள்:04.04.2022.
 9. திரு.சசிசுமார் மற்றும் பதினான்கு நபர்களின் ஏல விண்ணப்பங்கள் நாள்:05.04.2022.
 10. திரு.நித்தின்ரெட்டி என்பவரது கடிதம் நாள்: 18.04.2022
 11. தொடர்புடைய ஆவணங்கள்.

பார்வையில் காணும் கடிதங்களின்பால் கனிவான கவனம் வேண்டப்படுகிறது.

2. கிருஷ்ணகிரி மாவட்டம், ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம் அரசு புல எண்.220/1(பகுதி-2) விஸ்.3.00.0 ஹெக்டேர் பரப்பில் அமைந்துள்ள சாதாரண கற்குவாரியை டெண்டர் / பொது ஏலத்திற்கு கொண்டு வர உரிய நில இருப்பு அறிக்கை வருவாய் கோட்டாட்சியரிடம் கோரப்பட்டதில், ஓசூர் 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, ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம் அரசு புறம்போக்கு தீ.ஏ.த.தரிசு புல எண்.220/1(பகுதி-2) விஸ்.3.00.0 ஹெக்டேர் பரப்பு பூமியினை குத்தகை உரிமம் வழங்கிட விதிகளின்படி மேற்கண்ட புலம் தகுதிலாய்ந்தது 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.(08), ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.தரிசு) புல எண்.220/1(பகுதி-2)-ல் 3.00.0 ஹெக்டேர் பரப்பில் உள்ள கற்குவாரிக்கு டெண்டர் / பொது ஏலத்தில் கலந்து கொண்டவர்களில் திரு.நித்தினரெட்டி ஏலத்தில் கோரிய தொகை ரூ.4,61,00,000/- 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.

6. எனவே, ஏலதாரர் குத்தகை தொகை முழுவதும் செலுத்திவிட்டபடியால், மேற்படி கற்குவாரி ஏலமானது விதிகளின்படி உயர்ந்தபட்ச ஏலம் கோரிய திரு.நித்தினரெட்டி என்பவருக்கு உறுதி செய்யப்படுகிறது. மேலும், மேற்படி நபருக்கு ஓசூர் வட்டம், கோபனப்பள்ளி கிராமம், அரசு புறம்போக்கு (தீ.ஏ.த.தரிசு) புல எண்.220/1(பகுதி-2)-ல் 3.00.0 ஹெக்டேர் பரப்பு புலத்தில் பத்து (10) ஆண்டுகளுக்கு குவாரி உரிமம் வழங்க

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



நிபந்தனைகள்:

- 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், அட்டவணை-II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.
- அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர், அரசு புறம்போக்கு புலங்களுக்கு 10 மீட்டர் மற்றும் இதர நிலையான அமைப்புகளுக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரிப் பணி மேற்கொள்ள வேண்டும்.
- விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

இணைப்பு: குத்தகை உரிமம் வழங்க பரிந்துரைக்கப்பட்ட புல வரைபடம்.

ஓம்/- வி.ஜெய சந்திர பாணு ரெட்டி
மாவட்ட ஆட்சித் தலைவர்,
கிருஷ்ணகிரி.

// உண்மை நகல்// உத்தரவுபடி//

[Handwritten Signature]
24.05.22
மாவட்ட ஆட்சியருக்காக,
கிருஷ்ணகிரி

பெறுநர்:

திரு.நித்தினரெட்டி,
த/பெ.சந்திர ரெட்டி,
எண்.83, அவதானஹள்ளி - கிராமம்,
மர்சூர்-அஞ்சல், அனேக்கல் வட்டம்,
பெங்களூர் மாவட்டம்.

[Handwritten Signature]

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

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

Annexure VI

VAO Letter

THIRU. C.NITHIN REDDY, Rough stone quarry in the S.F.No.220/1(Part-2) over an extent of 3.00.00ha. in Gopanapalli Village, Hosur Taluk, Krishnagiri District.

GENERAL VIEW OF THE APPLIED LEASE AREA



Nithin
C.Nithin Reddy
(Deponent)

B.S.R. Prasad
Village Administrative Officer
No. 85, Gopanapalli, Village,
Hosur Taluk, Krishnagiri Dist.

കിരീടം അല്ലെങ്കിൽ മറ്റ് ഓരോ കിരീടം, കിരീടം
 ഉൾപ്പെടെ, കിരീടം അല്ലെങ്കിൽ മറ്റ് കിരീടം 220/1 (Part-2)
 ഗ്രാമ 3.00.0 കിരീടം - കിരീടം കിരീടം കിരീടം
 കിരീടം കിരീടം കിരീടം 500 കിരീടം കിരീടം കിരീടം
 കിരീടം, കിരീടം കിരീടം കിരീടം, കിരീടം കിരീടം കിരീടം,
 കിരീടം കിരീടം, കിരീടം കിരീടം കിരീടം, കിരീടം കിരീടം
 കിരീടം കിരീടം കിരീടം കിരീടം കിരീടം കിരീടം കിരീടം
 കിരീടം കിരീടം കിരീടം കിരീടം കിരീടം കിരീടം കിരീടം.

കിരീടം
 Village Administration Office
 No. 85, Gopanapalli, VII
 Hosur Taluk, Krishnagiri

ANNEXURE VI
AFFIDAVIT



VISHNU EXPLOSIVES

Blasting Contractor



Office : Door No. 273-A, Keelpaiyur, Paiyur Village, Kaveripattinam, Krishnagiri Dt. Pin - 635 112.

Magazine at : SF No. 344/3B, Paiyur Village, Kaveripattinam, Krishnagiri Dt.

Cell : 98427 44073, 99655 44073, 94437 44073

Ref:

To

C. Nithin Reddy,
S/o. Chandra Reddy,
D.No.83, Avadadenahalli Village,
Marsur Post,
Anekal Taluk,
Bangalore District-562 106,

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: 220/1 (Part- 2) in Gopanapalli Village, Hosur Taluk, Krishnagiri District over an extent of 3.00.0 hectares.

SERVING BEST AT ALL TIMES

Thanking you.

For VISHNU EXPLOSIVES,

Enclosure: Magazine License Copy.

Vk. Vishwanath



अनुज्ञापित प्रारूप एल. ई.-3 | LICENCE FORM EE-3

(विस्फोटक नियम, 2008 की अनुसूची 4 के भाग 1 के अनुच्छेद 3 के तहत) के अधीन जारी किया गया है।
(See article No.10 (3) of Part 1 of Schedule IV of Explosives Rules - 2008)

(ग) उपयोग के लिए एक समय पर को 1, 2, 3, 4, 5 या वर्ग 7 के विस्फोटक या किसी एक वर्ग 4 के विस्फोटक रखने के लिए अनुज्ञापित
Licence to possess (see for the explosives of class 1, 2, 3, 4, 5, 6 or 7 in a magazine)

अनुज्ञापित सं. (Licence No.): **F/HQ/TN/22/335(F64278)**
वार्षिक फीस रुपये (Annual Fee Rs): 14000/-

1. Licence is hereby granted to

M/s Vishna Explosives (आधीभागों / Occupier : Shri G.V.Sai Supramaniam), S/o V.G. Vishwanathar Plot No. 275-A Keel Payer Payer Village, Kaveripattinam P.O., Town Village - Kaveripattinam, District-KRISHNAGIRI, State-Tamil Nadu, Pincode- 635112



का अनुज्ञापित अनुदत्त को जाता है।

2. अनुज्ञापितारी की प्रकृति (Status of licensee - Proprietorship Firm)

3. अनुज्ञापित निम्नलिखित प्रयोजनों के लिए विधिमार्ग है।
Licence is valid only for the following purpose

possession for use of Safety Fuse, Detonating Fuse, Nitrate mixture - Sherry and Emulsion Explosives, Detonators, के उपयोग के लिए

4. अनुज्ञापित विस्फोटक के निम्नलिखित किसमें प्रकार और मात्रा के लिए विधिमार्ग है।
Licence is valid for the following kinds and quantity of explosives :- (क) (a)

क्र. सं.	नाम और विवरण Name and Description	शहर और प्रांत Cities & Division	उप-प्रांत Sub-division	मात्रा किसी एक समय में Quantity at any one time
1	Nitrate mixture - Sherry and Emulsion Explosives	2.0	0	7800 Kg.
2	Detonators	6.3	0	4400 Nos.
3	Safety Fuse	6.1	0	5000 Mtrs.
4	Detonating Fuse	6.2	0	3000 Mtrs.

(क) किसी एक कैलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा (क) और (ग) के अधीन अनुज्ञापित होगी।
(b) Quantity of explosives to be purchased in a calendar month (applicable for licence under article 3(b) and (c))

20 times available

5. निम्नलिखित रेखाचित्र (रेखाचित्रों) से अनुज्ञापित परिसर की पूर्ण होती है।
The licensed premises shall conform to the following drawings:-

रेखाचित्र सं. (Drawing No.) F/HQ/TN/22/335(F64278)
दिनांक (Date) 11-10-2021

6. अनुज्ञापित परिसर निम्नलिखित पते पर स्थित है। The licensed premises are situated at following address:
Survey No. 344/3B, ग्राम (Town/Village) Payer Village, Kaveripattinam

जिला (District) **KRISHNAGIRI** राज्य (State) **Tamil Nadu**
दूरभाष (Phone) **9842744073** ई-मेल (E-Mail)

पोलिस थाना (Police Station): Kaveripattinam
पिनकोड (Pincode): 635112
फैक्स (Fax):

7. अनुज्ञापित परिसर में निम्नलिखित सुविधाएँ अंतर्भूत हैं।
The licensed premises consist of following facilities

main magazine room, lobby and a detonator storage room

8. अनुज्ञापित समय समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उनके अधीन संशोधित विस्फोटक नियम, 2008 के उपबंधों, शर्तों और अतिरिक्त शर्तों और विनियमों के अधीन रहते हुए अनुदत्त को 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 and the conditions, additional conditions and the following Annexure:-

- अनुदत्त क्रम सं. 4 में यथा कथित रेखाचित्र (स्थान, संनिर्माण सुविधा और अन्य विवरण दर्शाते हुए) (Annexure showing site, constructional and other details) as stated in serial No. 4 above
- अनुज्ञापित प्राधिकारी द्वारा हस्ताक्षरित अनुदत्त को शर्त और अतिरिक्त शर्त।
Conditions and Additional Conditions of the licence signed by the licensing authority
- दूरी प्रारूप डी-2 Distance Form Df-2

यह अनुज्ञापित तारीख 31 मार्च 2015 तक विधिमार्ग रहेगी। This licence shall remain valid till the date of March 2015.

यदि अनुज्ञापित अधिनियम या उसके अधीन विरहित नियमों या अनुदत्तों के अंतर्गत इस अनुज्ञापित की शर्तों का अतिक्रमण किया जाये या यदि अनुज्ञापित परिसर योजना या उसके संशोधन उपबंध में दर्शाते विवरणों के अनुरूप नहीं पाए जायें या निलंबित या प्रतिबंधित को जा सकता है, जहाँ 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 serial No. 8 above, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto

तारीख (The Date) 03/08/2012

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 पृष्ठिका के लिए स्थान
Space for Endorsement of Renewal

नवाकरण का तारीख Date of Renewal	समाप्ति का तारीख Date of Expiry	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्थान Signature of licensing authority and office
28/02/2020	31/03/2025	Sd/- Controller of Explosives, Seelampur

**कानूनी चेतावनी : बिस्फोटकों का गलत ढंग से चलाने या उनका दुरुपयोग विधि के अधीन गंभीर दंडित अपराध होगा।
Statutory Warning : Misbandling 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.



தமிழ்நாடு தமில்நாடு TAMILNADU 20.10.2022 / ரூ-50 - BE 949685

C. Nithin Reddy Bangalore

M. K. M. M.
முத்திரைத்தாள் விற்பனையாளர்
உரிமம் எண். 1/2003
கப்ரமணிய நகர் விரிவாக்கம்
காமங்கலம், சேலம்-5, தமிழ்நாடு

AFFIDAVIT TO SEIAA, TAMIL NADU

I, **C. Nithin Reddy**, S/o. Chandra Reddy residing at D.No.83, Avadadenahalli Village, Marsur Post, Anekal Taluk, Bangalore District-562 106, do hereby solemnly declare and sincerely affirm that, I have applied for getting environment clearance to SEIAA, Tamil Nadu for quarry lease for Rough Stone quarry over an extent of 3.00.00 Ha with Survey No. 220/1 (Part-2), in Gopanapalli village, Hosur Taluk, Krishnagiri District, Tamil Nadu.

1. I swear to state and confirm that none of the following is situated within 10km radius of the quarry site for which, i 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. International boundaries within 10km radius from the boundary of the proposed quarry site.



C. Nithin

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.4,97,40,000/-	Rs.7,00,000/-
Total cost Allocation	Rs.4,97,40,000/-	Rs.7,00,000/-

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
1.	P. Nagaraj reddy, S/o. Pappireddy, D.No.2/32, Balageri Village, Mudhuganapalli Post, Hosur, Krishnagiri.	Hosapuram Village Denkanikottai Taluk	457 (Part-1)	2.00.0	Rc.No.111/2016/ Mines Dated: 08.08.2016	17.08.2016 To 16.08.2026
1.	P. Venkata reddy, S/o. Pedha obul reddy, D.No.3/213, periya Kodipalli Village, Kempat, Muttur, Denkanikottai, Krishnagiri.	Hosapuram Village Denkanikottai Taluk	457 (Part-2)	3.70.0	Rc.No.112/2016/ Mines Dated: 26.02.2020	26.02.2020 To 25.02.2030

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
-Nil-						



Notary

c. 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	Thiru. Nithin Reddy	Gopanaalli village Hosur Taluk	220/1 (Part-2)	3.00.0 Ha.	Roc.No.536/2022/ Mines dt:05.05.2022	Instant Proposal (Precise area given)
2	M/S. Natural Stone	Gopanaalli village Hosur Taluk	220/1 (Part-1)	3.00.0 Ha.	Roc.No.535/2022/ Mines dt:21.04.2022	Precise area given
3	Thiru. Vijaya Kumar	Gopanaalli village Hosur Taluk	220/1 (Part-4)	2.00.0 Ha.	Roc.No.538/2022/ Mines dt:26.04.2022	Precise area given
4	Thiru. S. Raghu	Gopanaalli village Hosur Taluk	381 (Part-1)	1.30.0 Ha.	Roc.No.539/2022/ Mines dt:04.05.2022	Precise area given
5	Thiru. Srre Krish Rough Stone	Gopanaalli village Hosur Taluk	220/1 (Part-3)	3.00.0 Ha.	Roc.No.537/2022/ Mines dt:21.04.2022	Precise area given
6	Thiru. Dhivakar	Gopanaalli village Hosur Taluk	381/1 (Part-2)	1.50.0 Ha.	Roc.No.540/2022/ Mines dt:22.04.2022	Precise area given



2 Nithin


4. There will not be hindrance or disturbance to the people living on enrooted/ nearby my quarry site while transporting the mineral and due to quarrying activities.
5. There is no approved habitation within 300m radius from the periphery of my applied quarry.
6. I 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 my 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. I will not engage any child labor in my quarry site and I am 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 my quarry.
11. No permanent structures, temple etc., are located within 500m radius from the periphery of my quarry.

I ensure to do the social and Environment commitment as mentioned in the Mining plan to the best of my knowledge.

 Nithin Reddy

C. Nithin Reddy
(Deponent)




Cell: (0)9443286345
M. SARAVANAKUMAR, B.SC., B.L.
ADVOCATE & NOTARY,
(GOVT. OF INDIA)
NO: 11, A.V. Mansion,
1st Gate, Near Sona College,
Junction Main Road, SALEM-638 005.

ANNEXURE VII
NABET CERTIFICATE



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.

NABET

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.

