

From,

Thiru. S.R. Muthupandi

S/O. Sri. S. Rajendran,
325, Melakkal Main Road,
Kochadai, Arasaradi,
Madurai South,
Madurai District.

To

District Environmental Engineer (Madurai District)

Madurai Tamilnadu Pollution Control Board,
Thirumangalam Taluk, SIDCO Industrial Estate,
Madurai -Thirumangalam Rd,
Kappalur, Tamil Nadu 625008.

Sub: Submission of Draft EIA/EMP report and Summary for Rough Stone and Gravel Quarry of Thiru. S.R. Muthupandi at Survey Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) over an area of 4.20.0 Ha in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu – Public Hearing_Reg

Ref: ToR granted by SEIAA, Tamil Nadu vide letter SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023 dated 27.09.2023

Sir,

With reference to the above mentioned subject, I am herewith submitting the Draft EIA/EMP report and Summary of EIA/EMP report in English and Tamil along with CD for **Rough Stone and Gravel Quarry of Thiru. S.R. Muthupandi at Survey Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) over an area of 4.20.0 Ha in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu**. As per the terms of reference issued by SEIAA, Tamil Nadu referred to as (1) above, point no. 39 stipulates conduction of public hearing. Hence, I request you to consider conducting a public hearing for my project at the earliest.

Here with enclosed D.D No – dated for public hearing.

Thank you.

Yours Faithfully,

Thiru. S.R. Muthupandi

Encl: as above

DRAFT EIA / EMP REPORT

FOR

ROUGH STONE AND GRAVEL QUARRY

Extent	4.20.0 Ha			
SF.Nos.	34/1A,1B,2, 52/2,3 & 60/2			
Location	Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu			
Land Type	Consent Patta Land			
Production	Year	Rough Stone M³	Gravel in M³	Depth
	1 to 5	2,42,675	74,060	24
	6 to 10	2,16,490	53,194	10
	Total	4,59,165	1,27,254	34

- Terms of Reference issued by SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023 dated 27.09.2023.
- Baseline Monitoring Period – Summer Season (March 2023 – May 2023)

PROJECT PROPONENT

THIRU. S.R. MUTHUPANDI
S/O. SRI. S. RAJENDRAN, 325, MELAKKAL MAIN ROAD,
KOCHADAI, ARASARADI, MADURAI SOUTH,
MADURAI DISTRICT

CONSULTANT

CREATIVE ENGINEERS & CONSULTANTS

NABET ACCREDITED CONSULTANCY, NABL ACCREDITED TESTING LAB

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DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A, 1B, 2, 52/2, 3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

REVISIONS OF EIA/EMP REPORT

Revision number	Report Status	Date of submission
00/DEC/23	Draft EIA /EMP Report	25.12.2023

Environmental Impact Assessment & Environmental Management Plan Report for Rough Stone and Gravel Quarry of Thiru. S.R. Muthupandi at Survey Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) over an area of 4.20.0 Ha in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu was prepared by Creative Engineers & Consultants and authorized for submission by P.Giri, EIA Coordinator, of Creative Engineers & Consultants on 25.12.2023 after due review by the personnel and consultation with Thiru. S.R. Muthupandi. Current Revision number of the EIA/EMP report is 00/DEC/23, signifying as per the revision mentioned in the above table that this is a draft EIA/EMP report.



PROJECT PROPONENT DECLARATION

I, Thiru. S.R. Muthupandi received ToR under EIA Notification 2006 from SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023 dated 27.09.2023 for Rough stone and Gravel Quarry over an area of 4.20.0 Ha in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu.

I have entrusted the EIA study to M/s. Creative Engineers & Consultants (CEC), Chennai who have been accredited by the National Accreditation Board for Education & Training (NABET), Quality Council of India with their accreditation valid upto 18.03.2024.

The Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) have been prepared as per the generic structure proposed in the EIA notification 2006, ToR issued by SEIAA, Tamil Nadu. The prescribed ToR along with compliance is also incorporated in the EIA/EMP Report.

This report is prepared based on the information and data obtained from the Mining Plan and other records and the field study carried out by the consultant. The data given in the EIA/EMP report are factually correct to the best of my knowledge.

Thiru. S.R. Muthupandi



CREATIVE ENGINEERS & CONSULTANTS

(NABET ACCREDITED, NABL ACCREDITED TESTING LABORATORY,
DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY)

EIA Consultant Undertaking

[In compliance with MoEF Office Memorandum No. J-11013/41/2006-IA.II (I) dated 04.08.2009]

Creative Engineers & Consultants (CEC) is an NABL accredited testing Laboratory, and also NABET accredited Category–A environment consultancy organization for preparing EIA/EMP reports for the sectors Mining of minerals, Thermal power plants, Mineral Beneficiation & Cement plants.

CEC has been accredited by the National Accreditation Board for Education & Training (NABET), Quality Council of India for empanelment of EIA Consultants with accreditation valid upto 18.03.2024.

S.R. Muthupandi received ToR under EIA Notification 2006 from SEIAA, Tamil Nadu vide their **SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023** dated **27.09.2023** for Rough stone and Gravel Quarry over an area of **4.20.0Ha** in **Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu**.

The prescribed TOR is complied with and incorporated in the EIA Report and submitted. This report is based on the information and data obtained from Approved Mining Plan, other records and data from the field study by CEC. The data generated and given in the EIA/EMP Report are factually correct. The sample analyses are carried out through CEC's laboratory.

(P. Giri)

Chief Executive & EIA Coordinator

Creative Engineers & Consultants

Annexure – VII

Declaration by Experts contributing to the EIA Report for

Rough Stone and Gravel Quarry of Thiru. S.R. Muthupandi at Survey Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) over an area of 4.20.0Ha in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu

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



EIA coordinator:


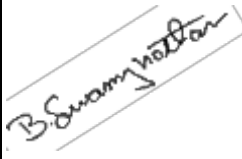
Name: **P.Giri**

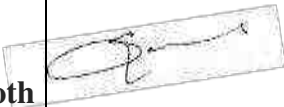



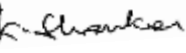
Signature and Date:



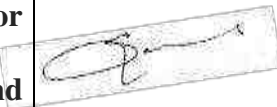

Period of involvement: **January 2023 onwards**



Contact information: **09444133619**

Functional area experts:

S. No.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and date
1	AP*	P.Giri	<ul style="list-style-type: none"> • Identification of baseline monitoring stations and study of the monitored data with respect to the applicable standards. • Identification of sources of air pollution comprising dust, gaseous emission due to mining & other activities • Identification of Impacts & suggestion of mitigation measures Period: January 2023 onwards	
		B.Swamynathan	<ul style="list-style-type: none"> • Data interpretation of Micro meteorological data for wind rose. • Identification of polluting source and suggestion of suitable mitigation measures. Period: March 2023 onwards	

2	WP*	G.Sandhya	<ul style="list-style-type: none"> • Study of the monitored data with respect to the applicable standards. • Identification of Water requirement & Source • Preparation of water balance diagram • Identification of Water polluting sources • Impact of the project on the water quality, both surface and groundwater • Suggestion of Mitigation measures to control water pollution <p>Period: March 2023 onwards</p>	
3	SHW*	P.Giri	<ul style="list-style-type: none"> • Quantification of mineral & waste from mining operation • Waste disposal method evaluation • Providing dump management plan • Providing Surface Runoff Management Structure Requirements. • Identification of Hazardous waste and its details of disposal <p>Period: January 2023 onwards</p>	
4	SE*	R.Baburaj	<ul style="list-style-type: none"> • Identification of villages in the study area and finalization of demographic profile of the villages within the study area. • Preparation of sections relevant to SE functional area in the EIA/EMP report <p>Period: March 2023 onwards</p>	
5	EB*	B.Swamynathan	<ul style="list-style-type: none"> • Perusal of existing data relevant to this project. • Studying the details of flora and fauna, separately for core, buffer zone and forest area based on primary field survey. • Identification of species , Indicating the Schedule of the fauna present in the study area • Assessment of impact on Biological environment and suggestion of mitigative measures • Collecting & providing details of existing and proposed Green belt development /plantation in the core zone <p>Period: March 2023 onwards</p>	
6	HG*	K.Shankar	<ul style="list-style-type: none"> • Study of existing surface drainage arrangements in the core and buffer zone, impact due to mining on these drainage courses and suggestion of mitigative 	

			<p>measures</p> <ul style="list-style-type: none"> • Perusal of site specific ground water table details for the core zone and the study area. • Studied the hydrological aspects of surface and groundwater in study area • Study about impact on the hydrology due to mining operation • Suggesting mitigative measures like RWH for enhancement of ground water level <p>Period: March 2023 onwards</p>	
7	GEO*	K.Shankar	<ul style="list-style-type: none"> • Study of geology of the ML area and the surrounding areas. • Provide details about Mineral composition <p>Period: March 2023 onwards</p>	
8	SC*	B.Swamynathan	<ul style="list-style-type: none"> • Study of soil profile • Assessment of Impact on soil and suggesting plantation scheme. <p>Period: March 2023 onwards</p>	
9	AQ*	G.Sandhya	<ul style="list-style-type: none"> • Quantification of emission particulars • Air quality modelling for post project impact on the air quality prediction of the study area. • Analysis of the Isopleth generated • Arriving at the post project concentration at the AAQ monitoring locations • Preparation of meteorological data in suitable form for input into the model • Simulation of model for generation of Isopleth and data interpretation. • Studying the impact on AAQ monitoring locations due to the generated emissions. • Preparation of sections relevant to AQ functional area in the EIA/EMP report. <p>Period: March 2023 onwards</p>	
10	NV*	P.Giri	<ul style="list-style-type: none"> • Identification of baseline monitoring stations and study of the monitored data with respect to the applicable standards. • Predict the noise level and vibration level due to proposed mining operation based on scientific evaluation. • Suggesting the Mitigation measures to control noise 	

			<p>pollution, Suggesting the Mitigation measures to control ground vibration</p> <p>Period: January 2023 onwards</p>	
11	LU	B.Swamynathan	<ul style="list-style-type: none"> • Collection of Remote sensing satellite data to study the land use pattern. • Primary field survey and limited field verification • Preparation of Land use map using Satellite data of the project area separately for the core zone and the buffer zone and providing the land use pattern. <p>Period: March 2023 onwards</p>	
12	RH*	K.Shankar	<ul style="list-style-type: none"> • Identified Major risks involved in the project • Mitigation measures suggested to avoid risk. • Preparation of onsite and offsite emergency management plan <p>Period: March 2023 onwards</p>	

*One TM against each FAE may be shown

**Please attach additional sheet if required

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

I, **P.Giri** hereby, confirm that the above mentioned experts prepared the EIA report for **Rough Stone and Gravel Quarry of Thiru. S.R. Muthupandi at Survey Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) over an area of 4.20.0Ha in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu**

I also confirm that EIA Coordinator (EC) has gone through the report, and the consultant organization shall be fully accountable for any misleading information. It is certified that no unethical practices, plagiarism involved in carrying out the work and external data / text has not been used without proper acknowledgement while preparing this EIA report.

Signature:



Name: **P.Giri**

Designation: **Chief Executive**

Name of the EIA consultant organization: **Creative Engineers & Consultants, Chennai – 59**

NABET Certificate No. & Issue Date: **No- NABET/EIA/2023/SA 0187 & date 30.01.2023**



QCI/NABET/ENV/ACO/23/3074

Dec 19, 2023

Creative Engineers and Consultants

9B/4, Bharathwajar street, East Tambaram
Chennai, Tamil Nadu

Sub.: Extension of Validity of Accreditation till March 18, 2024 – regarding

Ref.. 1. Certificate no NABET/EIA/2023/SA 0187

2. Request mail Dec 10, 2023

Dear Sir/Madam

This has reference to the accreditation of your organization under QCI-NABET EIA Scheme, the validity **Creative Engineers and Consultants** is hereby extended till March 18, 2024 or completion of the assessment process, whichever is earlier.

The above extension is subject to the submitted documents/required information with respect to your application and timely submission and closure of NC/Obs during the process of assessment.

You are requested not to use this letter after the expiry of the above-stated date.

With best regards.

(A K Jha)
Sr. Director, NABET

NABET



National Accreditation Board for Education and Training



Certificate of Accreditation

Creative Engineers and Consultants,
9B/4, Bharathwajar street, East Tambaram, Chennai, Tamil Nadu

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 opencast/ underground mining	1	1 (a) (i)	A
2	Thermal power plants	4	1 (d)	A
3	Mineral beneficiation	7	2 (b)	A
4	Cement Plants	9	3 (b)	A

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in SAAC minutes dated Oct 4, 2022 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/23/2653 dated January 30, 2023. The accreditation needs to be renewed before the expiry date by Creative Engineers and Consultants, following due process of assessment.

Sr. Director, NABET
Dated: January 30, 2023

Certificate No.
NABET/EIA/2023/SA 0187

Valid up to
December 23, 2023

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

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**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.10229/SEAC/ToR-1546/2023 Dated:27.09.2023

To

Thiru. S.R. Muthupandi
S/O. Sri. S. Rajendran,
325, Melakkal Main Road,
Kochadai, Arasaradi,
Madurai South, Madurai 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 4.20.0 Ha at S.F.No. 34/1A,1B,2,52/2,3 & 60/2 (patta land) of Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu by Thiru S.R. Muthupandi - 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/436845/2023, dated 17/07/2023
2. Your application submitted for Terms of Reference dated: 19.07.2023
3. Minutes of the 407th SEAC meeting held on 07.09.2023
4. Minutes of the 658th SEIAA meeting held on 26.09.2023 & 27.09.2023.

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

The proponent, Thiru S.R. Muthupandi 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

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4.20.0 Ha at S.F.No. 34/1A,1B,2,52/2,3 & 60/2 (patta land) of Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu.

Discussion by SEAC and the Remarks:-

Proposed Rough Stone and Gravel Quarry over an extent of 4.20.0 Ha at S.F.Nos. 34/1A,1B,2,52/2,3 & 60/2 (patta land), of Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu by Thiru S.R. Muthupandi - For Terms of Reference. (SIA/TN/MIN/436845/2023, 17.07.2023)

The proposal was placed in this 407th meeting of SEAC held on 07.09.2023. The Project Proponent made a detailed presentation on the proposed project. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, Thiru S.R. Muthupandi has applied for Terms of Reference for EIA study for the proposed Rough Stone and Gravel Quarry over an extent of 4.20.0 Ha at S.F.Nos. 34/1A,1B,2,52/2,3 & 60/2 (patta land), of Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu.
2. The proposed quarry/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006 as amended.

Based on the presentation and details furnished by the project proponent, SEAC decided to grant **Terms of Reference (ToR) with Public Hearing for EIA study** subject to the following ToRs, in addition to (i) the standard terms of reference for EIA study shown in **Annexure-I** and (ii) the Standard ToR for non-coal mining projects and details issued by the MoEF&CC to be included in EIA/EMP Report:

1. **The PP shall furnish the details on the flow pattern and its destination point of the two streams (tributary) existing near the Project site.**
2. The Proponent shall provide the details on the registration process of the land.
3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
4. Since the waterbodies such as canals/water tanks are situated nearby, the PP shall carry out the scientific studies to assess the hydrogeological condition of the core zone of 1 km due to proposed quarrying operations, by involving any one of the reputed Research and


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Academic Institution - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, University of Madras – Centre for Environmental Studies, and Anna University Chennai-Dept of Geology, CEG Campus.

5. 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.
6. The Proponent shall carry out Bio diversity study through Department of Ecology and Environmental Sciences, Pondicherry University and the same shall be included in EIA Report.
7. The PP shall prepare the EMP for the entire life of mine.

ANNEXURE-I

1. The PP shall furnish the letter obtained from the AD (Mines) indicating the existing pit dimensions and pit conditions showing the details on mine having worked during the earlier lease period.
2. The PP shall furnish DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
3. The PP shall provide individual notice regarding the Public Hearing to the nearby house owners located in the vicinity of the project site.
4. The Proponent shall justify the selection of the site for carrying out the stone quarrying with the total volume arrived for the excavation & production adequate details such as lithology of the deposit, reserve estimation, place for waste dump/mined mineral storage, end-use of mined materials, identified potential customers/end-users and travel path.
5. The PP shall also justify the selection of mining methodology (conventional or non-conventional) adopting blasting techniques/non-explosive techniques with proper ground reality & laboratory testing.
6. The proponent shall submit the "Blast Design Parameters for controlling the vibration and fly rock from the quarry blasting" considering the existence of sensitive structures including habitations within 500 m from the lease boundary.
7. The PP shall justify the estimation of HEMM population for excavation and transportation in the proposed quarries with proper calculation methodology adopted.


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8. The PP shall enumerate the environmental settings situated within a radial distance of 1 km such rivers/water bodies/reserve forests/ grazing land/existence of the hospitals and educational institutions/structures.
9. The PP shall provide the details of the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
10. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
11. The PP shall submit a 'Slope Stability Action Plan' for the proposed quarry where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.
12. If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.
13. 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.
14. The PP shall give an affidavit stating that no contractual persons provided by the explosive suppliers will be employed for carrying out the blasting operations in the proposed quarry.s
15. The PP shall also give an affidavit that no highly sensitive structure such as fire-cracker manufacturing units, Gas godown/explosive Magazine, LPG Bottling Units, etc are located within a radial distance of 300 m from the lease boundary of the proposed quarry.
16. 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 20 m from the blast site.
17. 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.


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18. The PP shall provide the environmental mitigation measures implemented for the crusher(s) located within the mining lease.
19. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
 - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
 - b. Quantity of minerals mined out.
 - c. Highest production achieved in any one year
 - d. Detail of approved depth of mining.
 - e. Actual depth of the mining achieved earlier.
 - f. Name of the person already mined in that leases area.
 - g. If EC and CTO already obtained, the copy of the same shall be submitted.
 - h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
20. 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.
21. 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).
22. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
23. 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.
24. 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.
25. 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


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- 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.
26. 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.
 27. 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.
 28. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
 29. 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.
 30. 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.
 31. 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.
 32. If the Village road/State highway/National highway are located within a radial distance of 500 m from the lease boundary of the quarry proposal, the PP shall carry out traffic studies to indicate impact on local transport infrastructure due to the Project and mitigation measures.
 33. 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.
 34. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
 35. Public Hearing points raised and commitments of the Project Proponent on the same along


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- 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.
36. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
 37. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
 38. 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.
 39. 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.
 40. 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
 41. 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.
 42. 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.
 43. 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.
 44. 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


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- detailed along with budgetary allocations.
45. 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.
 46. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
 47. 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.
 48. 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.
 49. 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.
 50. 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

List of Native Trees Suggested for Planting

1. *Aegle marmelos* – Vilvam
2. *Adenaanthera pavonina* - Manjadi
3. *Albizia lebbek* – Vaagai
4. *Albizia amara* - Usil
5. *Bauhinia purpurea* - Mantharai
6. *Bauhinia racemosa* - Aathi
7. *Bauhinia tomentosa* – Iruvathi
8. *Buchanania axillaris* - Kattuma
9. *Borassus flabellifer* - Panai
10. *Butea monosperma* - Murukka maram
11. *Bobax ceiba* – Ilavu, Sevvilavu
12. *Calophyllum inophyllum* - Punnai
13. *Cassia fistula* - Sarakondrai


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14. *Cassia roxburghii*- Sengondrai
15. *Chloroxylon sweitenia* - Purasa maram
16. *Cochlospermum religiosum* – Kongu, Manjal Ilavu
17. *Cordia dichotoma* – Mookuchali maram
18. *Creteva adansonii* – Mavalingum
19. *Dillenia indica* – Uva, Uzha
20. *Dillenia pentagyna* – Siru Uva, Sitruzha
21. *Diospyros ebenum* - Karungali
22. *Diospyros chloroxylon* – Vaganai
23. *Ficus amplissima* – Kal Itchi
24. *Hibiscus tiliaceus* – Aatru poovarasu
25. *Hardwickia binata* – Aacha
26. *Holoptelia integrifolia* - Aayili
27. *Lannea coromandelica* - Odhiam
28. *Lagerstroemia speciosa* - Poo Marudhu
29. *Lepisanthus tetraphylla* - Neikottai maram
30. *Limonia acidissima* - Vila maram
31. *Litsea glutinosa* –Pisin pattai
32. *Madhuca longifolia* - Illuppai
33. *Manilkara hexandra* – Ulakkai Paalai
34. *Mimusops elengi* - Magizha maram
35. *Mitragyna parvifolia* - Kadambu
36. *Morinda pubescens* – Nuna
37. *Morinda citrifolia* – Vellai Nuna
38. *Phoenix sylvestre* - Eachai
39. *Pongamia pinnata* – Pungam
40. *Premna mollissima* – Munnai
41. *Premna serratifolia* – Narumunnai
42. *Premna tomentosa* - Purangai Naari, Pudanga Naari
43. *Prosopis cinerea* - Vanni maram
44. *Pterocarpus marsupium* - Vengai
45. *Pterospermum canescens* – Vennangu, Tada
46. *Pterospermum xylocarpum* - Polavu


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47. *Puthranjiva roxburghii* – Puthranjivi
48. *Salvadora persica* – Uga Maram
49. *Sapindus emarginatus* - Manipungan, Soapu kai
50. *Saraca asoca* - Asoca
51. *Streblus asper* - Piraya maram
52. *Strychnos nuxvomica* – Yetti
53. *Strychnos potatorum* - Therthang Kottai
54. *Syzygium cumini* - Naval
55. *Terminalia bellerica* - Thandri
56. *Terminalia arjana* - Ven marudhu
57. *Toona ciliate* – Sandhana vembu
58. *Thespesia populnea* - Puvarasu
59. *Walsuratrifoliata* – valsura
60. *Wrightia tinctoria* – Veppalai
61. *Pithecellobium dulce* – Kodukkapuli

Discussion by SEIAA and the Remarks:-

Proposed Rough Stone and Gravel Quarry over an extent of 4.20.0 Ha at S.F.Nos. 34/1A,1B,2,52/2,3 & 60/2 (patta land), of Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu by Thiru S.R. Muthupandi - For Terms of Reference.

The subject was placed in this 658th meeting of Authority held on 26.09.2023. The Authority noted that the subject was placed in the 407th meeting of SEAC held on 07.09.2023 and the SEAC has furnished its recommendations for the grant of Terms of Reference for the EIA study along with Public Hearing subject to the conditions stated therein. The Authority after detailed discussion accepted the recommendation of SEAC and decided to issue **Terms of Reference for the EIA study along with Public Hearing** subject to conditions as recommended by SEAC in addition to the conditions stated vide **Annexure “B”**.

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.
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.,


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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.
 - f) Hydrothermal/Geothermal effect due to destruction in the Environment.
 - g) Bio-geochemical processes and its foot prints including environmental stress.
 - h) Sediment geochemistry in the surface streams.


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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 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


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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.

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.


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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/unfavorable 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, odaí, 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 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


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- 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 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.


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- 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 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


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- 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 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


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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 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


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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.
- 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.


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- 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) 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


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- 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 is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
 18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
 19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
 20. Likely impact of the project on air, water, land, flora-fauna and nearby population
 21. Emergency preparedness plan in case of natural or in plant emergencies
 22. Issues raised during public hearing (if applicable) and response given
 23. CER plan with proposed expenditure.
 24. Occupational Health Measures
 25. Post project monitoring plan
 26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
 27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
 28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
 29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.


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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.
- 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, Climate Change and 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 - 110 032.
3. The Chairman, 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 - 110 003.
6. The District Collector, Madurai District.
7. Stock File.

DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

TOR COMPLIANCE

S. No	ToR Points	Reply	Pg.No
A. ToR in Addition to Standard ToR			
A. Annexure			
1.	The PP shall furnish the details on the flow pattern and its destination point of the two streams (tributary) existing near the Project site.	• Study details is provided in para 4.3.3 C of Chapter-IV in EIA EMP Report.	--
2.	The Proponent shall provide the details on the registration process of the land.	• Part of the land is owned by the applicant and for the remaining land consent registration Under Progress	--
3.	The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.	• Details is provided in Chapter-II in EIA EMP Report..	--
4.	Since the water bodies such as canals/water tanks are situated nearby, the PP shall carry out the scientific studies to assess the hydrogeological condition of the core zone of 1 km due to proposed quarrying operations, by involving any one of the reputed Research and Academic Institution - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, University of Madras — Centre for Environmental Studies, and Anna University Chennai-Dept of Geology, CEG Campus	• Study details is provided in Figure 3.18, Chapter-III in EIA EMP Report.	--
5.	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.	• Site photographs is given in Chapter-II in EIA EMP Report.	
6.	The Proponent shall carry out Bio diversity study through Department of Ecology and Environmental Sciences, Pondicherry University and the same shall be included in EIA Report.	• Study details of NABET FAE is given in para 3.5 of Chapter-III in EIA EMP Report.	
7.	The PP shall prepare the EMP for the entire life of mine.	• A detailed study is given in Chapter-X.	



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

B. Annexure			
1.	The PP shall furnish the letter obtained from the AD (Mines) indicating the existing pit dimensions and pit conditions showing the details on mine having worked during the earlier lease period.	• Not applicable	--
2.	The PP shall furnish DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.	• Under Progress	A-40
3.	The PP shall provide individual notice regarding the Public Hearing to the nearby house owners located in the vicinity of the project site.	• Agreed	--
4.	The Proponent shall justify the selection of the site for carrying out the stone quarrying with the total volume arrived for the excavation & production adequate details such as lithology of the deposit, reserve estimation, place for waste dump/mined mineral storage, end-use of mined materials, identified potential customers/end-users and travel path.	• This report is prepared based on the Approved Mining Plan. (AMP)	--
5.	The PP shall also justify the selection of mining methodology (conventional or non-conventional) adopting blasting techniques/non-explosive techniques with proper ground reality & laboratory testing.	• Proven technology is proposed now.	--
6.	The proponent shall submit the "Blast Design Parameters for controlling the vibration and fly rock from the quarry blasting" considering the existence of sensitive structures including habitations within 500 m from the lease boundary.	• Blasting as per AMP will be carried out. On commencement of mining activities, site specific studies will be carried out through reputed agencies and their recommendation will be strictly followed.	--
7.	The PP shall justify the estimation of HEMM population for excavation and transportation in the proposed quarries with proper calculation methodology adopted.	• Since the production is less , the number of equipments are also less as given in AMP.	--
8.	The PP shall enumerate the environmental settings situated within a radial distance of 1 km such rivers/water bodies/reserve forests grazing land/existence of the hospitals and educational institutions/structures.	• Environmental settings within 10km radius is given in Table 3-1, Chapter – III.	--
9.	The PP shall provide the details of the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.	• Details are given in Chapter - IV	--
10.	The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m with details such as dwelling	• Details is provided in Table2.2 of Chapter-II.	



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

	houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.		
11.	The PP shall submit a 'Slope Stability Action Plan' for the proposed quarry where the proposed depth exceeds 30 m and it shall cover the aspects of stability of quarry walls including the access ramp keeping the benches intact.	• Details are given in Para 7.7 of Chapter – VII.	--
12.	If the blasting operation is to be carried out, the PP shall present a conceptual design for carrying out the NONEL initiation based controlled blasting operation including the line drilling & muffle blasting techniques and a Simulation Model indicating the anticipated Blast-induced Ground Vibration levels in the proposed quarry as stipulated by the DGMS Circular No.7 of 1997, during the EIA Proposal.	• Replied in sl no 6 above.	2-6 3-2 3-45
13.	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	--
14.	The PP shall give an affidavit stating that no contractual persons provided by the explosive suppliers will be employed for carrying out the blasting operations in the proposed quarry's	• Agreed	--
15.	The PP shall also give an affidavit that no highly sensitive structure such as fire-cracker manufacturing units, Gas godown/explosive Magazine, LPG Bottling Units, etc are located within a radial distance of 300 m from the lease boundary of the proposed quarry.	• Agreed	
16.	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 20 m from the blast site.	• Agreed	
17.	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.	• Agreed	
18.	The PP shall provide the environmental mitigation measures implemented for the crusher(s) located	• Not Applicable	



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	within the mining lease.		
19.	<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> <p>a) What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?</p> <p>b) Quantity of minerals mined out.</p> <p>c) Highest production achieved in any one year</p> <p>d) Detail of approved depth of mining.</p> <p>e) Actual depth of the mining achieved earlier.</p> <p>f) Name of the person already mined in that leases area.</p> <p>g) If EC and CTO already obtained, the copy of the same shall be submitted.</p> <p>Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.</p>	<ul style="list-style-type: none"> • Not applicable 	
20.	<p>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.</p>	<ul style="list-style-type: none"> • Not applicable 	
21.	<p>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).</p>	<ul style="list-style-type: none"> • Satellite imagery with corner coordinates of the project area is provided in Figure 2.4, Chapter-II. • Toposheet of the lease area and buffer zone is provided in Figure 3.1, Chapter-III. • Geology, Geomorphology, Lithology map of the lease area and buffer zone is provided in Figure 3.22, 3.23 and 3.24, Chapter-III. 	<p>2-6 3-2</p> <p>3-46 &48</p>
22.	<p>The PP shall carry out Drone video survey covering the cluster, Green belt , fencing etc.,</p>		
23.	<p>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.</p>	<ul style="list-style-type: none"> • Photographs of the site are provided in Chapter-II. Green netting will be carried out around the lease periphery on the other sides. 	2-7
24.	<p>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</p>	<ul style="list-style-type: none"> • The organization chart has been provided in Figure No.10.1, Chapter-X. 	10-3



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	out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.		
25.	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 he 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 he provided.	<ul style="list-style-type: none"> • Details of hydrogeological scenario of this project is provided under section 3.6, Chapter-III. 	3-43
26.	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 baseline data on micro- meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during Summer Season (March 2023 to May 2023) and detailed in Section 3.3 to 3.5 of Chapter-III. The details of Traffic Study is provided under Section 4.9, Chapter-IV.	3-9 & 3-31 4-26
27.	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.	The details of the quarries located within the 500m radius of the project is given vide Annexure-3. A cumulative impact study has been carried out and furnished in Para 7.3, Chapter-VII. Environmental Management Plan is provided under Chapter-X.	A-6 7-1 10-1
28.	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	Water requirement for this project is 10 KLD. The required water will be procured initially from outside agencies. Later Rain water harvested in the mine sump can also be used.	4-8
29.	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.	The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.4, Chapter-III. The land use pattern at present and at the end of the quarrying period has been provided under section 4.5.1, Chapter-IV. The post mining land use has been provided in Table No. 4.14. The post mining land use plan showing afforestation and water body is shown in Figure No- 4.5.	3-26 4-18 4-11
30.	Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside	There is no waste generation anticipated in this quarry. As such there are no OB dumps	



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	the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.	involved.	
31.	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 rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. Towards surface runoff management, a garland drain of length 1120 m will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users. The surface runoff management structures diagram is given in Figure No 4.4, Chapter-IV. Details of rainwater harvesting are provided under Section 4.3.4.2, Chapter-IV.	4-10 4-13
32.	If the Village road/State highway/National highway are located within a radial distance of 500 m from the lease boundary of the quarry proposal, the PP shall carry out traffic studies to indicate impact on local transport infrastructure due to the Project and mitigation measures.	Agreed.	
33.	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.	The details of flora in the core zone, project impact zone (PIZ) and the buffer zone are provided from Table No.3.23–3.24, Chapter-III.	3-33 to 3-34
34.	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	Details of Mine Closure Plan is provided under section 7.5, Chapter-VII.	7-4
35.	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.	This draft EIA/EMP report will be exposed to public consultation as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures. The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu.	7-1
36.	The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.	Agreed.	--
37.	The PP shall produce/display the EIA report,	Agreed.	--



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	Executive summery and other related information with respect to public hearing in Tamil Language also.		
38.	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.	Agreed.	--
39.	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 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.	In the lease area, safety barrier 7.5m around the periphery, 10m safety distance for odai in the eastern and western side of the lease area. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area. About 2200 trees will be planted in and around the lease area. Details are given in Table No.4.16, Chapter-IV.	4-22
40.	Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted in proper spacing 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.	Agreed.	--
41.	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.	The disaster management plan has been provided under section 7.3.1, Chapter-VII.	7-3
42.	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.	Details about Risk Assessment has been provided under section 7.3, Chapter-VII.	7-1
43.	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.	Details of occupational health and safety aspects are given under the subsections of Para 4.8, Chapter-IV.	4-24
44.	Public health implications of the Project and	Details of the socio-economic survey	3-8



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	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.	conducted in the buffer zone has been provided in Para 3.2.4, Chapter-III. Public health facilities will be further aimed to be developed through CER activities wherein periodic health checkups, medical camps for the locals will be conducted.	
45.	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.	<ul style="list-style-type: none"> Nearby villages were visited for conducting study to know about socio-economic conditions, including aspirations and requirements of the people for a better living and collected relevant data. The details are provided under section 3.2.4, Chapter-III. Towards the socio economic development of the surrounding area, the proponent has earmarked an amount of Rs.5 Lakhs under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a phased manner in the nearby Government schools. In consultation with the locals based on the need & priority it will be implemented. 	3-8 4-24
46.	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	--
47.	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.	<p>The Rough Stone and Gravel Quarry will benefit this region in the fields of employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, health, infrastructural etc.</p> <p>Direct employment to 18 person and 50 person indirect employment to scores of people.</p> <p>By means of carrying out the socio economic development activities, local community development is expected. Towards the same, the proponent has planned to allocate Rs. 5 Lakhs for various activities under CER. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.</p>	8-1
48.	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.	Not Applicable	--
49.	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating	The capital and recurring cost of the project is provided under Table No.10.1, Chapter-X.	10-3



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	to abide the EMP for the entire life of mine.		
50.	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 Reference besides attracting penal provisions in the Environment (Protection) Act, 1986"	Agreed.	--
A. 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.	Details of the cluster management committee is provided under Section 10.2.2, Chapter-X.	10-3
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.,	Details provided under Section 10.2.2, Chapter-X.	10-3
3.	The List of members of the committee formed shall be submitted to AD/lt4ines before the execution of mining lease and the same shall be updated every year to the AD/Mines.	Details provided under Section 10.2.2, Chapter -X	10-3
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.	Details provided under Section 10.2.2, Chapter-X	10-3
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.	Details provided under Section 10.2.2, Chapter-X	10-3
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.	Details provided under Section 10.2.2, Chapter-X	10-3
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.	Details provided under Section 10.2.2, Chapter-X	10-3
8.	The committee shall furnish the Emergency Management plan within the cluster.	Details provided under Section 10.2.2, Chapter-X	10-3
9.	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public.	Details provided under Section 10.2.2, Chapter-X	10-3
10.	The committee shall furnish an action plan to achieve sustainable development goals with	Details provided under Section 10.2.2, Chapter-X	10-3



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	reference to water, sanitation & safety.		
11.	The committee shall furnish the fire safety and evacuation plan in the case of fire accidents.	Details provided under Section 10.2.2, Chapter-X	10-3
Impact Study of Mining			
12.	<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> <p>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. 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</p>	<p>As such the production from this lease is very low to cause any appreciable impact. No adverse impact on the surrounding environment is envisaged since the number of equipments to be used to achieve this small production is very less and the magnitude of operation is of very small level. Besides, as is it a mining project, no adverse generation of heat is envisaged. Certified vehicles with low carbon emissions will only be used. These equipments will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned wherein 2200 number of plants will be planted in and around the lease area. Geologically the area in and around the lease area contains charnokite type rock formation containing mostly fallow land. As such there no major vegetation or agricultural activities are observed. There are no Protected or Eco-Sensitive Zone or forest land nearby wherein it can have an impact. It will be ensured that mining will be carried out adhering to all the statutory rules and regulations and maintaining the environmental quality within the prescribed standards by effective implementation of various mitigative measures. These mitigative measures will be continued for the entire lease period ensuring no impact on the environment. As such release of Greenhouse gases (GHG), rise in temperature, affecting livelihood of the local people, loss of Agriculture, Forestry and Traditional Practices is not envisaged. Such a limited scope will not induce any climatic change leading to droughts, floods etc.</p>	4-22
Agriculture & Agro-Biodiversity			
13.	Impact on surrounding agricultural fields around the proposed mining Area.	Due to poor soil condition and non-availability of perineal water source, no major agricultural	4-20



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		activity is carried out in and around the lease area. Only patches of plantation are observed in few places in the monsoon season based on water availability that too near river.	
14.	Impact on soil flora & vegetation around the project site.	The impact of mining on biological environment is provided under Table 4.15, Chapter-IV.	4-19
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.	The details of flora in the core zone is provided in Table 3.24, Chapter-III. There is no major clearance of vegetation or transplantation involved.	3-33
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.	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under Section 3.5.1, Chapter-III.	3-31
17.	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	The post mining land use has been provided in Table No. 4.13. The post mining land use plan showing afforestation and water body is shown in Figure No- 4.5.	4-18 4-11
18.	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	Due to poor soil condition and non-availability of perineal water source, no major agricultural activity is carried out in and around the lease area. Only patches of plantation are observed in few places in the monsoon season based on water availability.	4-20
Forests			
19.	The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.	Details provided under Chapter-III.	3-2
20.	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under section 3.5.1, Chapter-III.	3-31
21.	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.	Replied in point 20. Above	--
22.	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks. Corridors and Wildlife pathways. near project site.	Details provided under Chapter-III.	3-3
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	Details of hydrogeological scenario of this project is provided under section 3.6, Chapter-III.	3-43



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	etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.		
24.	Erosion Control Measures	Since the entire material from the quarry face will be directly dispatched to the consumers, there will not be any stockpiles. There are no waste dumps in this quarry. As such there will not be any wash out due to stock pile or waste dumps. Towards surface runoff management, a garland drain of length 1120m will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users	4-9
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.	There is an seasonal odai on the eastern and western side of the lease area for which safety distance of 10m has been left. There is no proposal to discharge any effluent into this water body. No major impact is envisaged on the nearby water bodies due to project operations	4-10
26.	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	There is no major perennial water body in close proximity of the lease area.	3-3
27.	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	The post mining land use has been provided in Table No. 4.13. The post mining land use plan showing afforestation and water body is shown in Figure No- 4.5.	4-18 4-11
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.	An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. Details are provided under section 3.5.1, Chapter-III. The land use pattern details are provided under section 4.5.1, Chapter-IV.	3-31 4-18
29.	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	Soil samples were collected in 3 locations in the core and buffer zone to analyse the physiochemical characteristics of the soil in the area. The soil quality data is provided in Table No.3.18, Chapter-III.	3-25
30.	The Environmental Impact Assessment should study on wetlands, water bodies, rivers steams, lakes and farmer sites.	The nearest major water bodies is provided in Table No.3.1, Chapter-III. There is a odai channel in the eastern and western side of the lease area for which safety	3-2



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		distance of 10m has been left. There is no proposal to discharge any effluent into this water body. No major impact is envisaged on the nearby water bodies due to project operations. The mining area consists of hard compact rock, hence no major water seepage within the mine is expected from the periphery. The ultimate pit depth of mining is 34m. The ground water table in this area is below this level. Hence, ground water intersection is not envisaged and ground water will not be affected appreciably due to the quarrying operation.	4-10
Energy			
31.	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.	The dust control measures are listed under Table 4.1, Water pollution control measures under Section 4.3.2, and noise pollution control measures under Section 4.4.1.2, Chapter-IV. Besides, energy consumption in this project will be optimum and as per requirement.	4-2 4-16
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.	Certified vehicles with low carbon emissions will only be used. These equipments will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned wherein 2200 number of plants will be planted in and around the lease area.	4-22
33.	The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.	Replied in point no.32	--
Mine Closure Plan			
34.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued	Details of Mine Closure Plan is provided under section 7.5, Chapter-VII.	7-4
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.	Detailed environmental management plan is provided under Chapter-X.	10-1
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.	Detailed environmental management plan is provided under Chapter-X.	10-1
Risk Assessment			



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37.	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	Various risks likely to arise due to mining activities are detailed under Section 7.3, Chapter-VII.	7-1
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.	The disaster management plan has been provided under Section 7.3.1, Chapter-VII.	7-3
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.	Under progress.	A-28
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.	Agreed	--
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.	Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.	4-28
B. Standard ToR			
1.	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.	This is a proposed quarry. As such no mining activities have been carried out in this lease area.	2-14
2.	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given	Precise Area Communication letter received from the Assistant Director, Dep. of Geology & Mining, Madurai Vide Rc.No.1114/Mines/2021 dated 04.03.2023. (Annexure-1)	A-1
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	The production capacity, quantity of waste, its management and mining technology in mine plan and EIA, etc., are compatible with one another.	--



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	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/toposheet, 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).	Project coordinates superimposed in satellite imagery and given as Figure No - 2.4 in Chapter – II. The geology and geomorphology map is provided in Figure No.3.19, 3.20, Chapter-III. The Lithology map and Soil map are provided under Figure No. 3.21, 3.22, Chapter-III. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 in Chapter – III.	2-6 3-46 & 49 3-2
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.	Replied in Standard ToR point no.4	--
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.	Not Applicable	--
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.	The proponent will frame a well-planned environmental policy. Its details are provided under Section 10.2.1, Chapter-X. The Mines Manager will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine. The organizational chart for the same has been provided in Figure No.10.1, Chapter-X.	10-1 10-3
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.	Various risks likely to arise due to mining activities are detailed under section 7.3, Chapter-VII. This being an opencast mine, subsidence is not applicable. The impact due to ground vibrations due to blasting is given in para 4.4.2, Chapter-IV.	7-1 4-16
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	The study area chosen for collecting existing environmental status covers 10 km radial distance from the project periphery (Figure No -	3-2



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	generation etc. should be for the life of the mine / lease period.	3.1). Data given in the report is for the life of the mine.	
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.	The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.4, Chapter-III. The land use pattern at present and at the end of the quarrying period has been provided under section 4.5.1, Chapter-IV. The post mining land use has been provided in Table No. 4.14. The post mining land use plan showing afforestation and water body is shown in Figure No- 4.5.	3-26 4-18 4-11
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.	There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. Hence, there is no external overburden dump involved. Besides, there is no proposal for overburden dump outside the lease area.	2-13
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.	Not Applicable	--
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.	There is no forest land in the lease area.	--
14.	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	Not applicable	--
15.	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.	A detailed study of flora and fauna composition in the core and buffer zone of the project has been made through primary field surveys. The details are furnished in para 3.5, Chapter III.	3-31
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	The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive	4-19



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	wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.	features like national parks, biospheres, sanctuaries, etc.	
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.	Replied in Standard ToR point No.16	--
18.	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	A detailed study of flora and fauna composition in the core and buffer zone of the project has been made through primary field surveys. The details are furnished in para 3.5, Chapter III.	3-31
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.	Not Applicable	--
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 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).	Not Applicable	--



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21.	<p>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 shilling of village(s) including their R&R and socio-economic aspects should be discussed in the Report.</p>	<p>The mining activities will be carried out within the mine lease areas only. The entire mine lease areas are patta land in proponent's possession. Hence, the question of R& R does not arise.</p>	7-4
22.	<p>One season (non-monsoon) (i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season) primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.</p>	<p>The baseline data on micro- meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during Summer Season (Mar 2023 to May 2023) and detailed in para 3.3 to 3.5 of Chapter-III. Monitoring stations were selected taking into account, wind direction and location of sensitive receptors. Free silica composition in PM10 sample has been done and the values are found to be Below Detectable Limit (DL 0.05mg/m³) which is well within the prescribed limit of 5mg/m³.</p>	3-9 & 3-31
23.	<p>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.</p>	<p>Air quality modeling details are furnished in para 4.2.2 and its continuous sub paras in Chapter-IV of EIA report. The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model developed by Lakes Environmental Software which is based on steady state Gaussian plume dispersion. The model simulations are done for the air pollutant arising from the mining operations, namely, PM10, PM2.5. Ground Level Concentration (GLC) have been computed using hourly meteorological data.</p>	4-3 4-5 & 6



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		<p>The Isopleths of PM10, PM2.5 concentrations for with control measures scenario have also been drawn and these are given in Figure No.4.1 and 4.2.</p> <p>It can be seen that the resultant added concentrations with baseline figures even at worst scenario, show that the values of ambient air quality with respect to PM10 are within the statutory limits in each case.</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>The total water requirement for this project will be 10.0 KLD comprising 1.0 KLD for drinking water and domestic use, 8.0 KLD for dust suppression and 1.0 KLD for greenbelt. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose. The water balance diagram for the same is shown in Figure No 4.3, Chapter-IV.</p>	4-8
25.	<p>Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.</p>	Not Applicable	--
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, should be provided.</p>	<p>The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc.</p> <p>Towards surface runoff management, garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users. The surface runoff management structures diagram is given in Figure No 4.4, Chapter-IV.</p> <p>The methods for reducing water consumption and rainwater harvesting is provided in section 4.3.4, Chapter-IV.</p>	4-10
27.	<p>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.</p>	<p>There is an seasonal odai on the eastern and western side of the lease area for which safety distance of 10m has been left. There is no proposal to discharge any effluent into this water body.</p> <p>The ultimate pit depth of mining is 34 m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation.</p>	4-10
28.	<p>Based on actual monitored data, it may clearly be</p>	<p>The occurrence of groundwater mainly in the</p>	4-10



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	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.	porous soil are weathered layers, very negligible amount of groundwater percolated through the poorly fractured layer, after that there is no existence of groundwater. Since the mining area consists of hard compact rock, no major water seepage within the mine is expected from the periphery. The ultimate pit depth of mining is 34 m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation. Details of hydro geological study are given in Para 3.6, Chapter – III.	3-43
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.	Replied above in Standard ToR point No.27.	--
30.	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.	The ultimate pit depth of mining is 34m. The ground water table in this area is below this level.	4-10
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. Phasc-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.	In the lease area, safety barrier 7.5m around the periphery is left. About 2200 trees will be planted in and around the lease area. The details of proposed plantation is provided under Table 4.16, Chapter-IV.	4-21
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	From this proposed quarry the entire output will be transported to the crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. Details of the traffic study is provided under section 4.9, Chapter-IV.	4-26



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	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.	This is a proposed project. Site services like mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.	2-18
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.	The post mining land use has been provided in Table No. 4.13. The post mining land use plan showing afforestation and water body is shown in Figure No- 4.4.	4-22 4-10
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	Details of occupational health and safety aspects are given under the subsections of Para 4.8, Chapter-IV.	4-24
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	Details of the socio economic survey conducted in the buffer zone has been provided in Para 3.2.4, Chapter-III. Public health facilities will be further aimed to be developed through CER activities wherein periodic health checkups, medical camps for the locals will be conducted.	3-8
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.	Nearby villages were visited for conducting study to know about socio-economic conditions, including aspirations and requirements of the people for a better living and collected relevant data. The details are provided under section 3.2.4, Chapter-III.	3-8
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.	Detailed environmental management plan is provided in Chapter-X.	10-1
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.	This draft EIA/EMP report will be exposed to public consultation as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures. The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and	7-1



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		officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu.	
40.	Details of litigation pending against the project, if any, with direction /order paced by any Court of Law against the Project should be given.	There is no litigation pending against the project.	--
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.	The cost of the project is Rs. 1,85,75,310/- The capital and recurring cost of the project is provided under Table No.10.1, Chapter-X.	2-18 10-10
42.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report.	The disaster management plan has been provided under section 7.3.1, Chapter-VII.	7-3
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.	The Rough Stone and Gravel Quarry will benefit this region in the fields of employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, health, infrastructural etc. Direct employment to 18 person and 50 person indirect employment to scores of people. By means of carrying out the socio economic development activities, local community development is expected. Towards the same, the proponent has planned to allocate Rs. 5 Lakhs for various activities under CER. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.	8-1

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CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE REPORT:

Thiru. S.R. Muthupandi proposes to operate a **Rough Stone and Gravel Quarry** over an area of **4.20.0** Ha in Viralipatti village, Vadipatti Taluk, Madurai District, Tamil Nadu and has initiated action towards obtaining environmental clearance. Proposed Production for the first five years is 2,42,675m³ of Rough stone and 74,060 m³ of gravel for the depth of 24 meter. The Total production for 10 years lease period is 4,59,165 m³ of Rough Stone and 1,27,254 m³ of gravel for the depth of 34 meter. Although the individual lease area of this project is less than 5 Ha, the other existing and proposed quarries within the 500m radius cluster along with this subject project works out to >5 Ha. Hence, this proposal is considered under Category – B1 and as per MoEF & CC notification necessitates preparation of EIA/EMP report and public hearing. This EIA/EMP report is prepared based on standard and additional Terms of Reference issued by SEIAA, Tamil Nadu vide letter no. **SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023 dated 27.09.2023** and is in conformance of the generic structure prescribed by MOEF&CC in their notification of September 2006 and the approved mining plan.

1.2 IDENTIFICATION OF PROJECT & PROJECT PROPONENT:

Table 1.1 Identification of project

1	Project Name	Rough Stone and Gravel Quarry of Thiru. S.R. Muthupandi
2	Extent	4.20.0 Ha
3	Production	The Proposed Production for the first five years is 2,42,675m ³ of Rough stone and 74,060 m ³ of gravel for the depth of 24 meter. The Total production for 10 years lease period is 4,59,165 m ³ of Rough Stone and 1,27,254 m ³ of gravel for the depth of 34 meter.
4	Ultimate Depth	34m bgl for 10 years and 24 m bgl for 5 years
5	Land Classification	Patta land, partly owned by the applicant and for the remaining, applicant got consent from other Pattadars.
6	Location	Survey Number: 34/1A,1B,2, 52/2,3 & 60/2
		Village: Viralipatti village
		Taluk: Vadipatti Taluk
		District: Madurai
		State: Tamil Nadu



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Table 1.2: Identification of Project Proponent

1	Proponent Name	Thiru. S.R. Muthupandi
2	Address	S/O. Sri. S. Rajendran, 325, Melakkal Main Road, Kochadai, Arasaradi, Madurai South, Madurai District..
3	Contact Number	9965287759
4	Email-ID	vpp,viji82@gmail.com

The Proponent can meet the financial requirement of this project and will ensure that the mining activities are carried out as per statutory requirements.

Table 1.3: Statutory Approvals

S.No	Statutory Approval	Authority	Letter Number and Date	Reference
1.	Precise Area Communication Letter	Assistant Director, Dep. of Geology & Mining	Rc.No.1114/Mines/2021 dated 04.03.2023.	Annexure-1
2.	Mining Plan Approval	Assistant Director, Dep. of Geology & Mining	Rc.No.1114/Mines/2021 dated 21.03.2023	Annexure-2
3.	Details of other quarries within 500m radius	Assistant Director, Dep. of Geology & Mining	Rc.No.1114/Mines/2021 dated 21.03.2023	Annexure-3

The following conditions have been stated in the Precise Area Letter:

- 10m safety distance for Seasonal Odai on the west & North east.
- 7.5m safety distance for nearby patta lands

The above conditions have been adhered to.



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

1.3 BRIEF DESCRIPTION OF NATURE, SIZE, LOCATION & PROJECT IMPORTANCE

Table 1.4: Brief Description of Nature of project

1.	Sector	1(a), Non-Coal Mining
2.	Type	Fresh Project
3.	Category	B1 (Cluster Situation)
4.	Mineral Mined	Rough stone, Gravel
5.	Major/Minor Mineral	Minor
6.	Mining method	Opencast mechanized Mining
7.	End use	The gravel will be loaded into tipper and marketed to needy customers on payment of necessary Seignior age Fees to Government. The excavated rough stone will be excavated and loaded into tipper to the needy buyers for producing crusher aggregates, M Sand.

Table 1.5: Location of the project

S.No	Particulars	Details
1.	Location	Viralipatti village, Vadipatti Taluk, Madurai District, Tamil Nadu
2.	Corner Coordinates	Latitude: 10 ^o 06' 27.2" to 10 ^o 06' 40.1" N Longitude: 77 ^o 58' 51.5" to 77 ^o 59' 00.06" E
3.	Toposheet Number	58-K/01

Location details are elaborated in Para 2.3, Chapter-II.

1.3.1 IMPORTANCE TO THE COUNTRY AND REGION:

Rough stone and Gravel from this quarry will meet the domestic demand. There is good demand for the Gravel & stone aggregate, which is the main requisite for the construction/ infrastructure sector. Gravel quarried from this lease will be directly transported to the nearby end users. The boulders will be marketed to the nearby crushers for producing crusher aggregates.

This project in the area will provide both direct and indirect employment opportunities through allied opportunities in logistics, trading, repairing works etc., improved per capita income for local people, improved social welfare facilities like infrastructural build-up, improvement in facilities due to the proposed CER activities of the proponent etc.



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

1.4 SCOPE OF THE STUDY:

Particulars	Details
Proposal no	SIA/TN/MIN/436845/2023
File no	10229
SEAC meeting for issue of TOR	407 th SEAC Meeting held on 07.09.2023
SEIAA meeting for issue of TOR	658 th SEIAA Meeting held on 26.09.2023 & 27.09.2023
Terms of Reference	Received from SEIAA, Tamil Nadu vide their Lr No. SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023 dated 27.09.2023
Baseline Data Collection	Carried out by Creative Engineers & Consultants , Chennai for Summer Season (March – May 2023)

Based on the terms of reference, data collection, the Environmental Impact Assessment was carried out for the project area (core zone and the buffer zone (10km radius from the core zone) and the following studies were covered:

- Collection of primary and secondary data relevant to the project.
- One-Season baseline monitoring for environmental parameters such as air, water, noise, soil, flora & fauna, etc. Analysis of parameters in in-house laboratory.
- Documentation of EIA/EMP report with inclusion of relevant studies conducted by other bodies into the EIA/EMP report.
- Identification of significant environmental parameters that are prone to get affected due to pollution. Namely, Air, Water, Noise, Soil, Biological and Land Environment.
- Evaluation and determination of suitable mitigation measures to reduce and control the said pollution.
- Prediction of post project concentration (baseline + incremental) with respect to air environment for core zone and buffer zone.
- Formulation of an Environmental Management plan including administrative aspects for proposed implementation of mitigative measures in time.



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

This draft EIA/EMP report will be submitted for public consultation, as per rules and procedures in this respect, as per the EIA notification 2006. The opinions, concerns and objections, if any, of the surrounding public and other stake holders connected, will be taken into consideration and compliance report thereon will be submitted to SEIAA, Tamil Nadu in the final EIA/EMP report.

* * * * *



CHAPTER 2

PROJECT DESCRIPTION

2.1 TYPE OF PROJECT:

This proposal involves quarrying of Rough stone and Gravel by Thiru. S.R. Muthupandi using mechanized opencast method for the lease period of 10 years.

2.2 NEED & JUSTIFICATION FOR THE PROJECT:

There is a huge demand for construction material and the entire material produced from this quarry will be used in the local construction / infrastructure sector. Considering the following favorable factors it is practically possible to achieve the proposal within the planned period and this proposal is fully justified.

- Availability of good quality proved reserves
- Techno economic viability of the scheme
- Better approachability to the project, availability of logistic facility in proximity to the site
- Economic and Socio Economic Benefits to the region

2.3 LOCATION:

A brief description of the mining area, along with the location, coordinates, accessibility, etc. has been details below in Table No.2.1.

Table 2.1: Mine site description

Location	Viralipatti village, Vadipatti Taluk, Madurai District, Tamil Nadu
Survey No.	34/1A,1B,2, 52/2,3 & 60/2
Coordinates	Latitude: 10 ⁰ 06' 27.2" to 10 ⁰ 06' 40.1" N Longitude: 77 ⁰ 58' 51.5" to 77 ⁰ 59' 00.06" E
Nearest Village	Seminipatti -1.1Km
Nearest Town	Thirumangalam – 13 km - NW
Nearest Highway	(NH-7) - 2.0 Km– (SW)
Nearest Railway Station	Vadipatti – 5 Km- (SW)

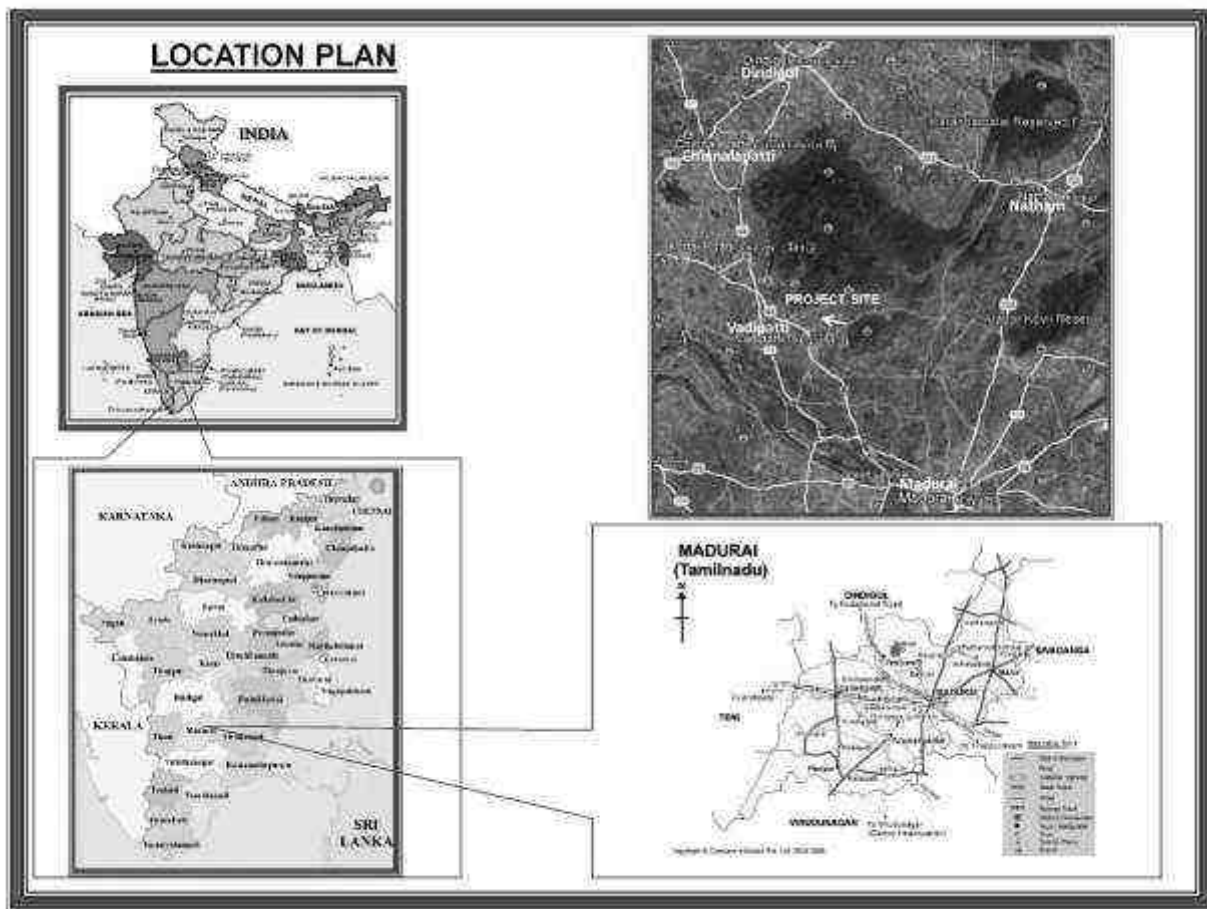


DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

Nearest Airport	Madurai- 35km – (SE)
Accessibility	The applied area can be easily accessible Viralipatti at a distance of 28Kms from Madurai to Dindigal road, and then to the applied area at a distance of 2Km towards northeast of Viralipatti
Topography	Plain terrain, dry lands with scarce vegetation.
Drainage	Drainage of the area is controlled by various first order streams which finally drains in to vaigai river on the south of the lease area.

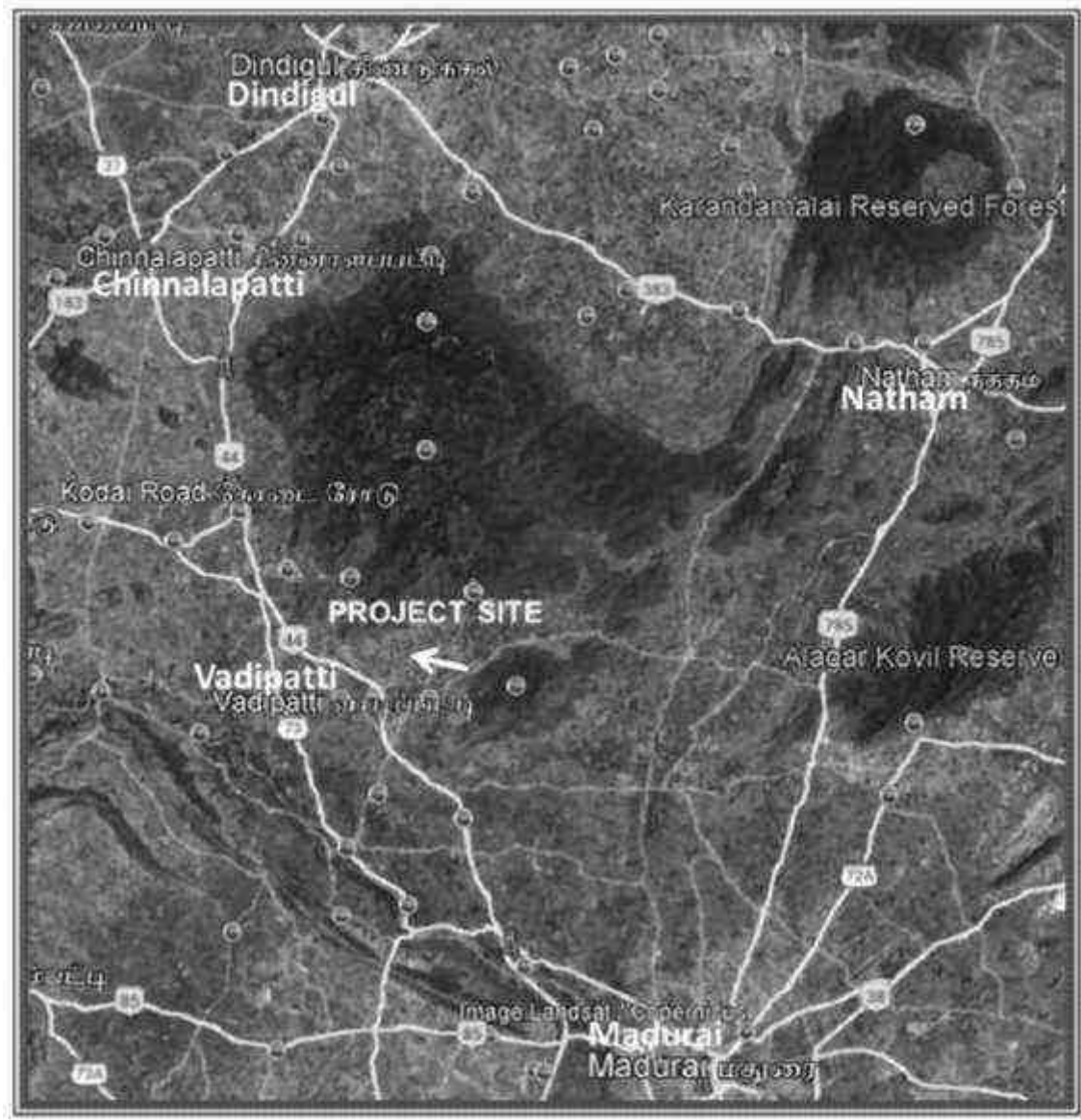
Location map is provided in **Figure No.2.1**. The approachability map is provided in **Figure No.2.2**. Corner co-ordinates of the lease area and satellite imagery are shown in **Figure No. 2.3 & 2.4** respectively. Village map for 500m radius from the lease is shown in **Figure No. 2.5**.

Figure 2.1: Location Map



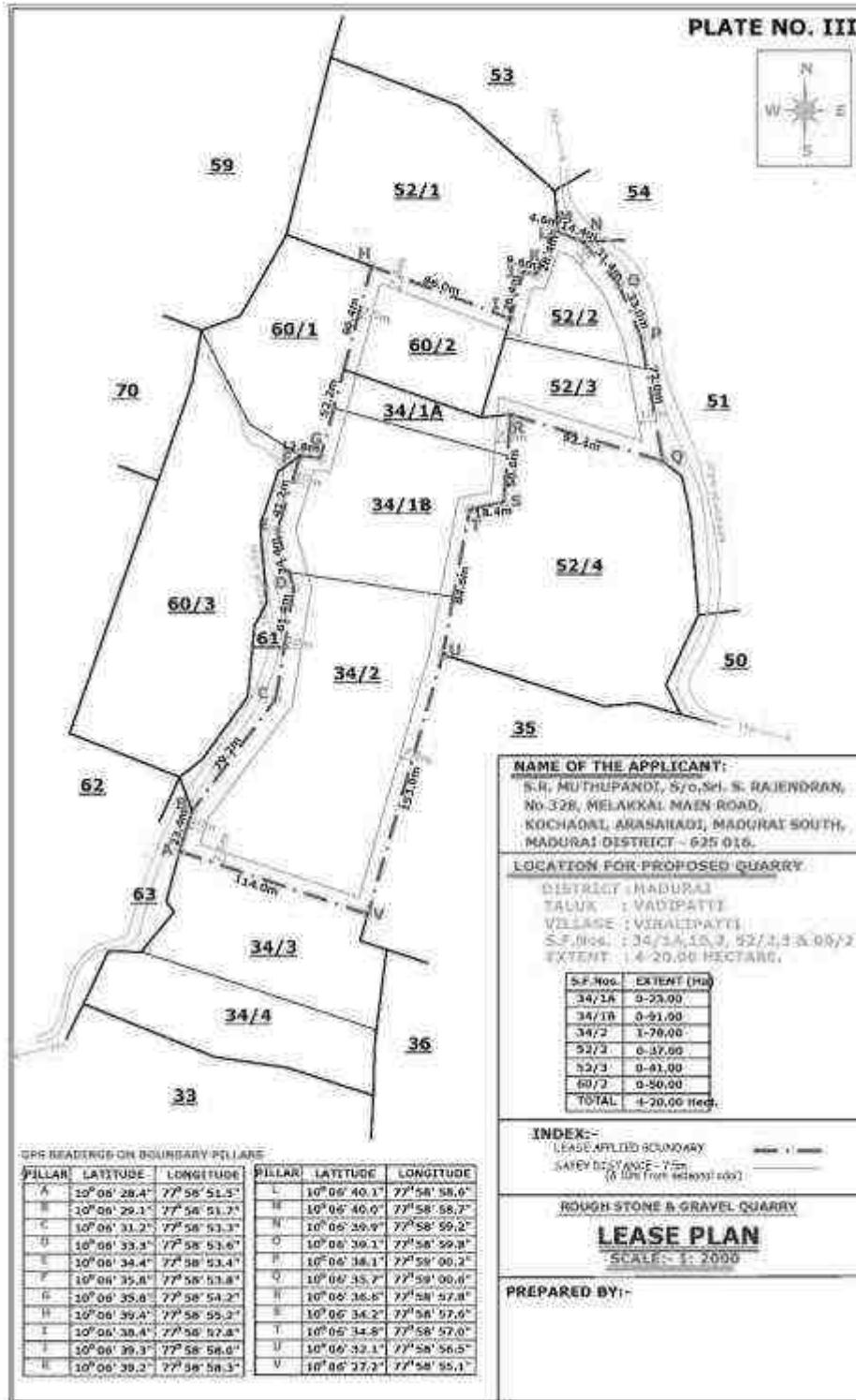
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Figure 2.2: Approachability Map



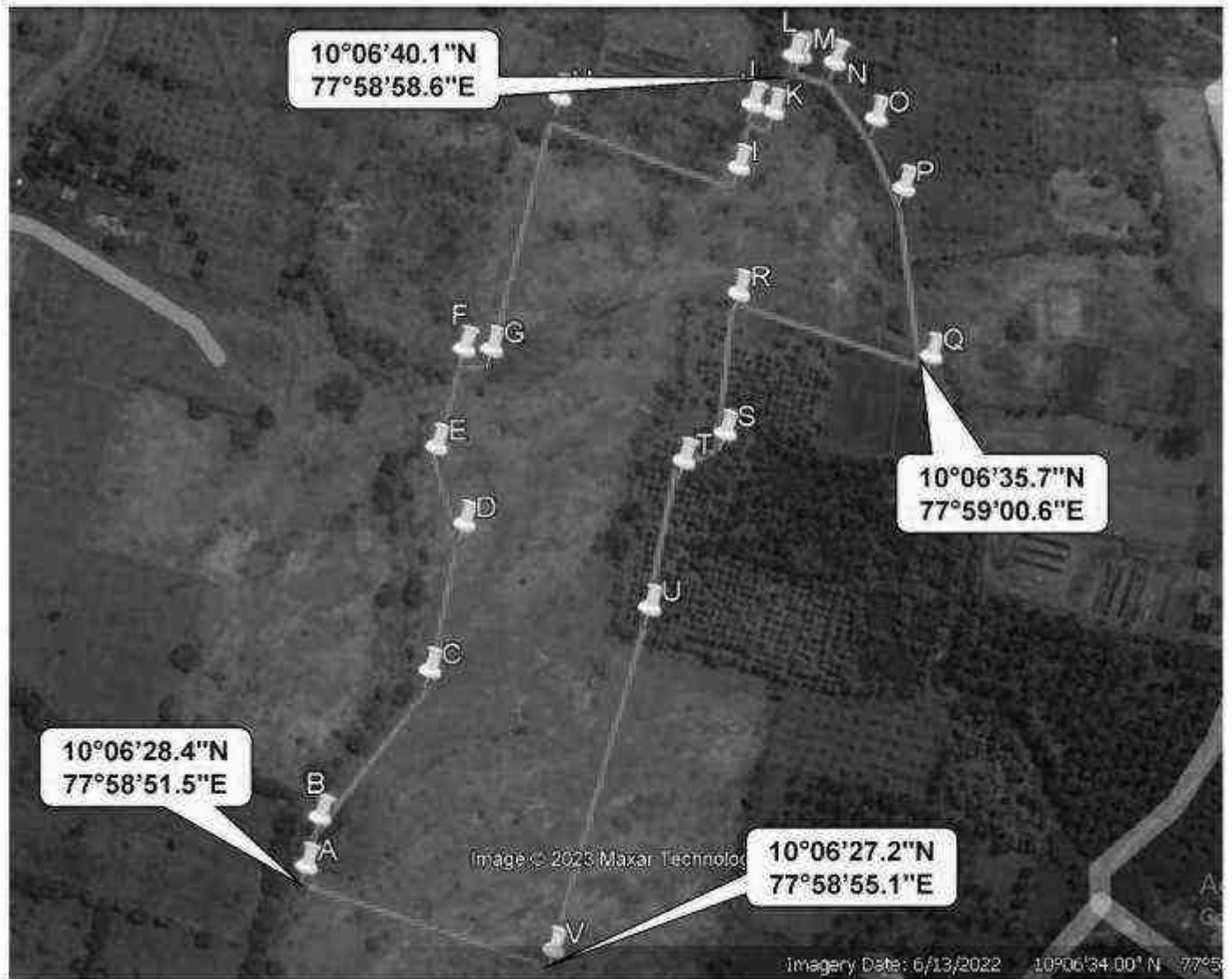
DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

Figure 2.3: Lease Plan



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Figure 2.4: Satellite Imagery Showing Corner Co-ordinates of the Project Area



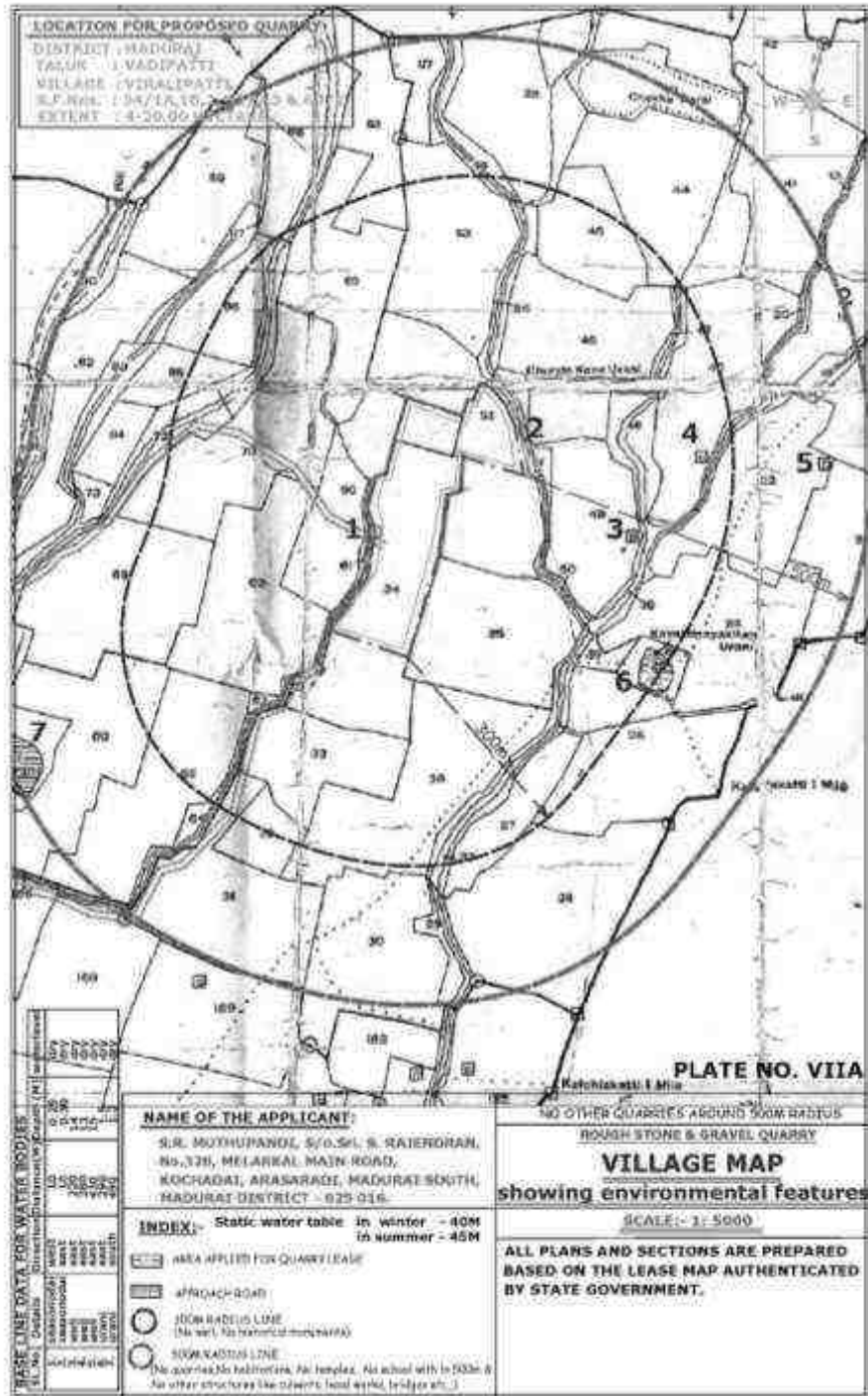
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SITE PHOTOGRAPH



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Figure 2.5: Village Map



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Figure 2.6: Details of features within 500m radius



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

As per the conditions of the Terms of Reference, the details of structures located within the 100m, 200m, 300m, 400m and 500m radius are provided below.

Table 2.2: Features within 500m radius

S.No	Features	Distance
1	Pump Shed	55m-E
2	Pump Shed	160m-SE
3	Pump Shed	150m-SE
4	Shed	185m-E
5	Old Shed	165m-N
6	Old Shed	180m-W
7	Pump Shed	130m-S
8	Pump Shed	250m-SE
9	Shed	240m-SE
10	Old Pump Shed	250-NE
11	Shed	220m-N
12	Pump Shed	334m-SE
13	Pump Shed	340m-SE
14	Pump Shed	330m-SW
15	Old Shed	381m-SW
16	Pump Shed	460m-SW



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17	Shed	490m-SE
18	Shed	480m-SE
19	Shed	480-N

2.4 LAND CLASSIFICATION:

The lease area of 4.20.0Hectares in S.F.Nos. 34/1A,1B,2, 52/2,3 & 60/2 is a Patta land, partly owned by the applicant and for the remaining, applicant got consent from other Pattadars. The survey no. wise area breakup has been provided below:

Table 2.3: Survey Number wise Area Breakup

District	Taluk	Village	Survey No	Area in Ha	Ownership	Remarks
			34/1A	0.23.00	Palaniswamy Muthupandi Sriram	Joint patta
Madurai	Vadipatti	Viralipatti	52/2, 52/3 34/1B, 60/2 34/2	0.37.00 0.41.00 0.91.00 0.50.00 1.78.00	Palaniswamy Vijayakarthick Muthupandi Sriram	Joint patta
Total Area in (Hectares)				4.20.0		

2.5 GEOLOGY:

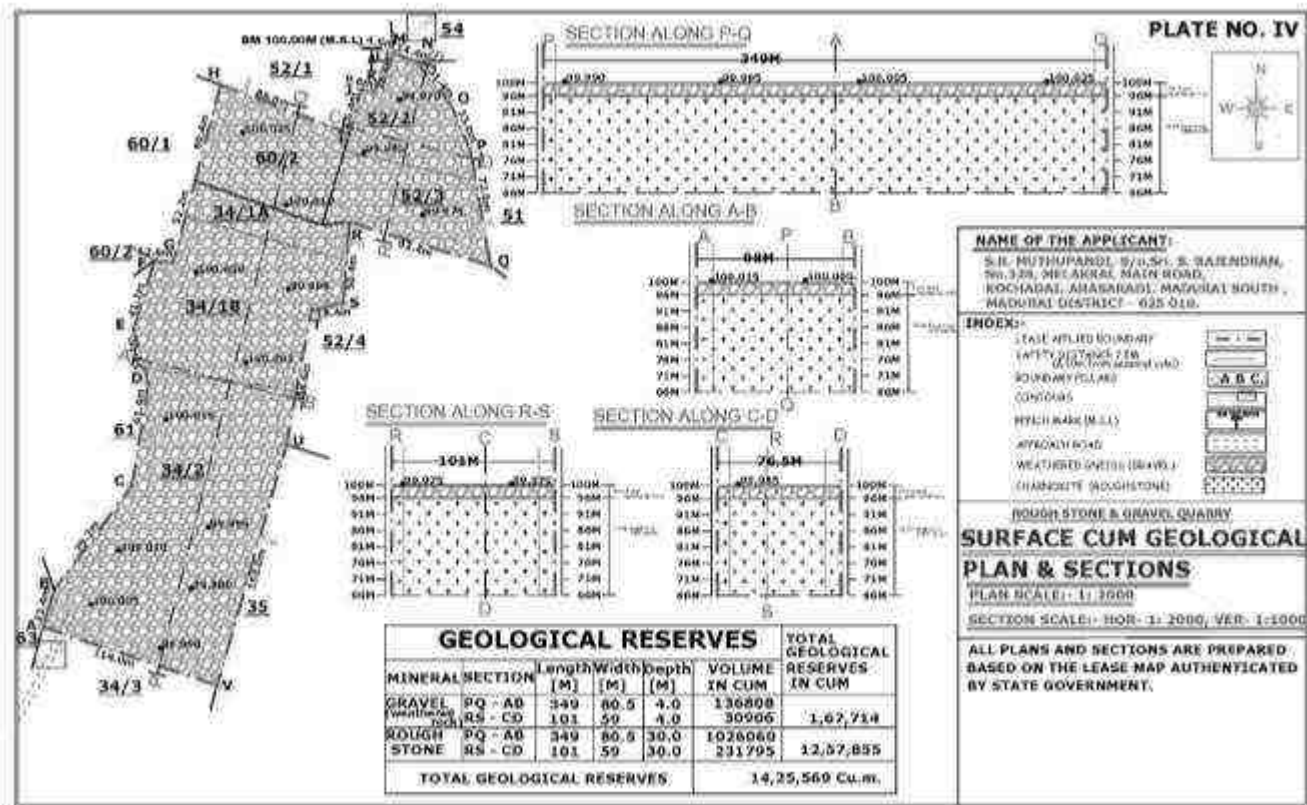
The rocks in this area belonging to ARCHEAN group of rocks. Below the gravel formation a hard Rough stone Charnockite is noticed. The rocks are Phaneric to medium grained nature. And in these rocks there are mineral constituents of BLUE QUARTS, MICRO CLINE FELDSPAR, HYPERSTHENE and flakes of BIOTITE MICA. The rocks are striking towards North west – South east direction dipping 80° Vertical towards South east direction. The strike



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length of the deposit on 349m length and 98m width on southern side (PQ-AB section) and 101m length and 76.5m width on northern side (RS-CD section).

Figure 2.7: Geological Plan & Cross Section



2.6 SIZE AND MAGNITUDE OF THE OPERATION:

- The proposed mining will be done by open cast semi mechanized mining method.
- Life of mine will be 10 years.
- The Proposed Production for the first five years is 2,42,675m³ of Rough stone and 74,060 m³ of gravel for the depth of 24 meter. The Total production for 10 years lease



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period is 4,59,165 m³ of Rough Stone and 1,27,254 m³ of gravel for the depth of 34 meter.

- There is no waste generation anticipated in this quarry operation since the entire excavated material will be transported to buyers.

2.6.1 RESERVES:

Table 2.4: Geological and Mineable Reserves

Type of reserves	Gravel + Rough stone in Cub.m
Geological Resources	14,25,569 Cu.m.
Mineable reserves	5,86,419 Cu.m.
Bench locked & 7.5m boundary barrier reserves	8,39,150 Cu.m.

The mineable reserves is arrived after considering the safety distance as per the Precise area letter.

2.6.2 MINING METHOD:

Opencast mechanized mining using jackhammer drilling, blasting, and excavation through excavator & mineral transport through tippers will be carried out. The top gravel is soft and can be directly excavated. The gravel and rough stone below will be blasted and then excavated. Bench height of 5.0m & 5m width is considered.

Table 2.5: Details of Equipments

SI. NO	NAME OF THE EQUIPMENT	CAPACITY	REQUIRED
1	Excavator	TATA HITACHI (EX200)	1
2	Tipper	10 Tonnes	2
3	Tractor compressor for drilling	175 CFM	1
	Dewatering pump	5 Hp Diesel pump	1

2.7 PROPOSED SCHEDULE FOR APPROVAL AND IMPLEMENTATION:

The proponent propose to implement the production immediately after obtaining all the statutory approvals such as CTE, CTO, etc. The proponent will comply with the environmental clearance conditions during mining operations. The schedule of project implementation envisaged for this project is provided below. This is a tentative schedule subject to various factor, hence unforeseen variations may occur.



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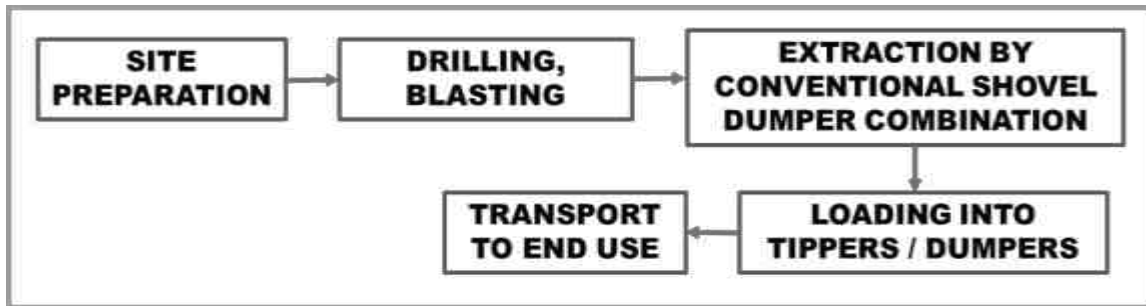
Table 2.6: Proposed Schedule of Implementation

Activities	Months					
	Zero Date	1	2	3	4	5
Obtaining Environmental Clearance						
Obtaining Consent from State Pollution Control Board						
Lease Execution						
Equipment mobilization and Commencement of Mining activity after following all the Statutory Requirements						

2.8 TECHNOLOGY AND PROCESS DESCRIPTION:

The quarry operations involve drilling, blasting, excavation, loading and transportation of Rough stone to buyers. The production of Rough stone in this quarry involves jackhammer drilling and blasting. The primary boulders are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators. It is a conventional opencast mechanized method of mining. The process flow diagram of this project is provided below.

Figure 2.8: Process Flow Diagram



2.9 PROJECT DESCRIPTION:

2.9.1 PAST PRODUCTION:

This is a proposed quarry. As such no mining activities have been carried out in this lease area.



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2.9.2 PRODUCTION & WASTE DISPOSAL:

The year wise production has been provided below:

Table 2.7: Production Schedule During Plan Period

YEAR	GRAVEL(m3)	ROUGHSTONE (m3)
I	16100	42875
II	14490	49950
III	14490	49950
IV	14490	49950
V	14490	49950
First 5 Year Total	74,060	2,42,675
VI	14490	49950
VII	18998	44967.5
VIII	9440	51207.5
IX	10266	38147.5
X	-----	32217.5
2nd 5 year Total	53,194	2,16,490
10Year Total	1,27,254	4,59,165

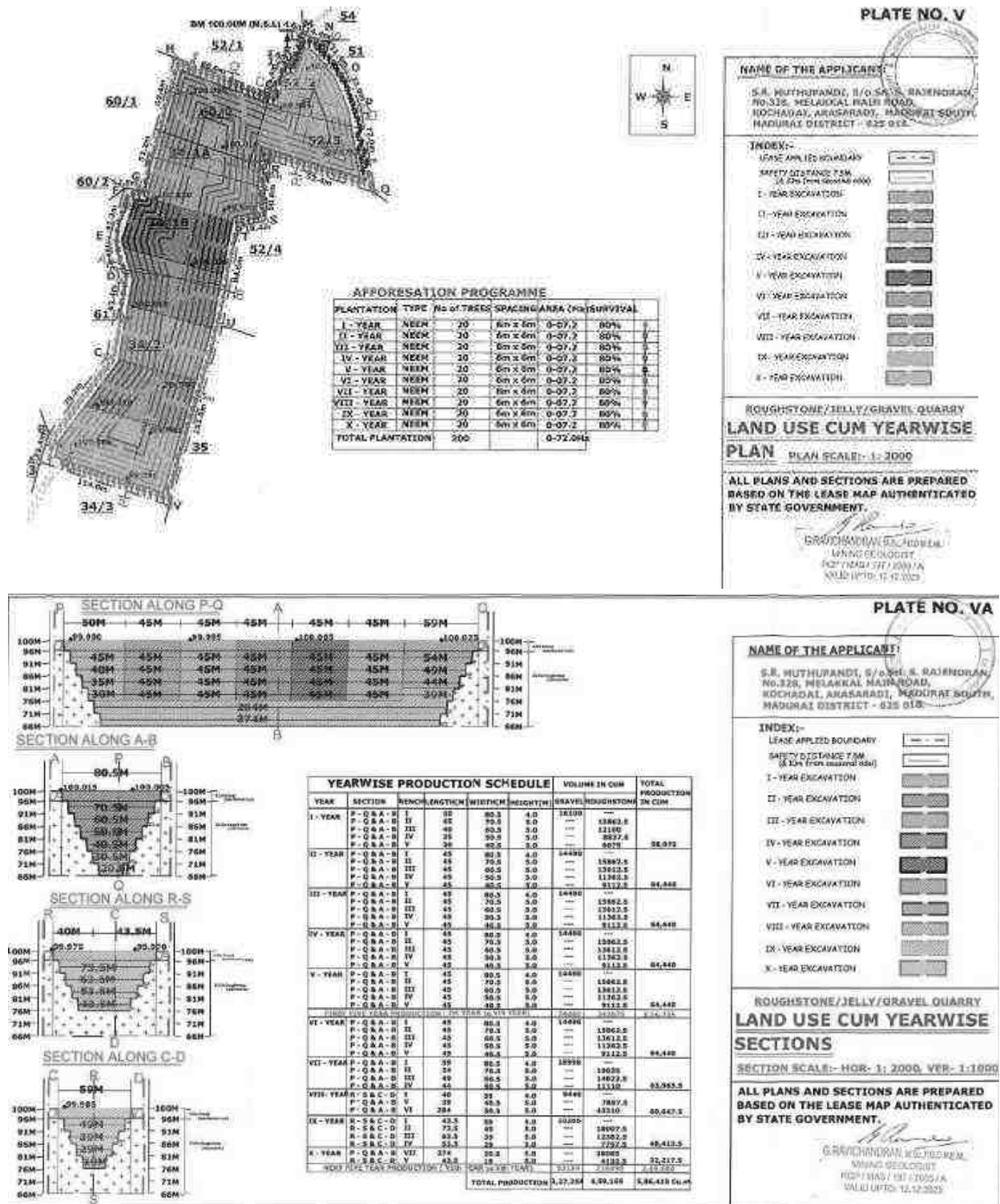
Waste Disposal during Plan Period:

There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. The top overburden in the form of Gravel will be loaded into tipper and marketed to needy customers on payment of necessary Fees to Government. The excavated rough stone will be excavated and loaded into tipper to the needy buyers for producing crusher aggregates, M Sand.



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Figure 2.9: Year wise Plan & Cross Section



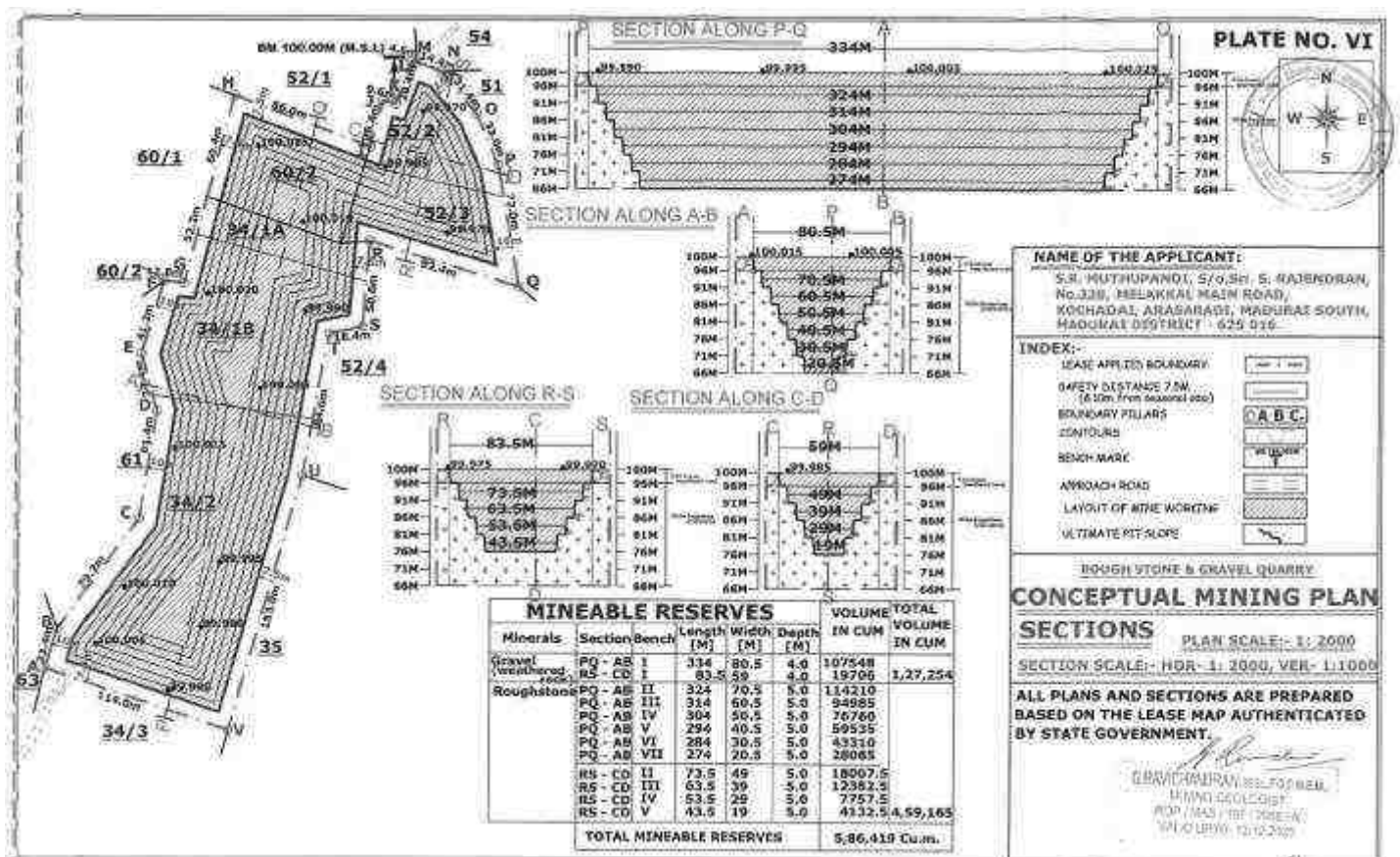
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Table 2.8: Ultimate Pit Dimensions

Pit dimension at the end of 10 th year period(M)			
Pit No	Length (Max) in m	Width (Max) in m	Depth(Max) in (m)
PQ-AB	334.0	80.5	34.0
RS-CD	83.5	59.0	24.0

The ground water table on the surface in this area is ranging below 40 m BGL Hence, ground water intersection in not envisaged. The Conceptual Plan & Cross section are shown in **Figure No. 2.11.**

Figure 2.10: Conceptual Plan & Cross Section



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LAND DEGRADATION/UTILIZATION:

The land use pattern at present and at the end of the quarrying period has been provided below.

Table 2.9: Land Use

Sl. No.	Land Use	Present Area (Hect)	Area in use during the 10 year period (Ha)
1.	Quarrying Pit	Nil	3.18.0
2.	Infrastructure & Road	Nil	0.08.0
3.	Greenbelt and Dump	Nil	0.72.0
4.	Unutilized	4.20.0	0.10.0
5.	Fencing	Nil	0.12.0
	Total	4.20.0	4.20.0

At the end of the 5 year period, 3.18.0 Ha will be used as mined out area at 24m depth. Subsequently, in the remaining 6th to 10th year there will be only depth ward mining in the same mined out area up to 34 m depth. Ultimately the entire mined out area will be left as water body. 0.08.0 Ha will be the mine roads& infrastructure, 0.72.0 Ha will be covered with vegetation, 0.10.0 ha will be undisturbed area and 0.12.0 will be fencing.

2.9.3 PROJECT REQUIREMENTS:

Table 2.10: Project Requirements

Manpower	18 People directly and more than 50 people indirectly										
Water Requirement and Source	Water Requirement: 10 KLD										
	<table border="1"> <thead> <tr> <th>Details</th> <th>Quantity (KLD)</th> </tr> </thead> <tbody> <tr> <td>Drinking water and Domestic Use</td> <td>1.0</td> </tr> <tr> <td>Dust Suppression</td> <td>8.0</td> </tr> <tr> <td>Green belt</td> <td>1.0</td> </tr> <tr> <td>Total</td> <td>10.0</td> </tr> </tbody> </table>	Details	Quantity (KLD)	Drinking water and Domestic Use	1.0	Dust Suppression	8.0	Green belt	1.0	Total	10.0
	Details	Quantity (KLD)									
	Drinking water and Domestic Use	1.0									
	Dust Suppression	8.0									
Green belt	1.0										
Total	10.0										
Source: The required water will be procured initially from outside agencies. Later Rain water harvested in the mine sump can also be used.											
Power Requirement	No electricity needed for mining operation. The minimum power requirement for office, etc will be met from state grid.										
Site Services	This is a proposed project. Site services like mine office, first aid room, rest shelters, toilets etc. will be provided as semi-permanent structures.										
Project Cost	Rs. 1,85,75,310 /- (Including operational + Fixed Asset + EMP cost).										
Funds allocated for socio-economic development	Rs.5.0 Lakhs is allocated under CER budget.										



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2.10 DESCRIPTION OF MITIGATION MEASURES:

Scientific and systematic development of mines will be carried out by the project authorities for preserving as well as improving the environmental conditions in and around the mining lease area. Elaborate analysis on impacts and mitigation measures to be adopted on implementation of this project and the same has been dealt in Chapter- IV.

2.11 ASSESSMENT OF NEW & UNTESTED TECHNOLOGY:

There is no new technology that is being implemented. Opencast method of mining which is the proposed method of mining is a proven technology which is technologically and economically viable. . No major technological failures are anticipated. A disaster management plan shall be put into place to take care of any unforeseen situation.

2.12 CONCLUSION:

As good environmental preservation is one of the prime motive of the project proponent. It is expected that the project activity will not have any major impact on environmental equilibrium in the study area.

* * * * *



**CHAPTER 3
DESCRIPTION OF ENVIRONMENT**

3.1 GENERAL:

The existing environmental baseline data for the various environmental components were collected in the study area for the purpose of assessing the future impact on present environment due to the project activities.

Monitoring was carried out systematically and meticulously as per relevant IS codes, CPCB, MoEF&CC guidelines during **Summer Season (March 2023 to May 2023)** the details of the study are given in this chapter.

For the purposes of this study, the area has been divided into two zones, namely, core and buffer zones. The entire lease area is considered to be the core zone while the buffer zone encompasses a 10 km radius from the periphery of the core zone. The details of villages falling in the study area and other features are given in Index Plan in Figure No - 3.1

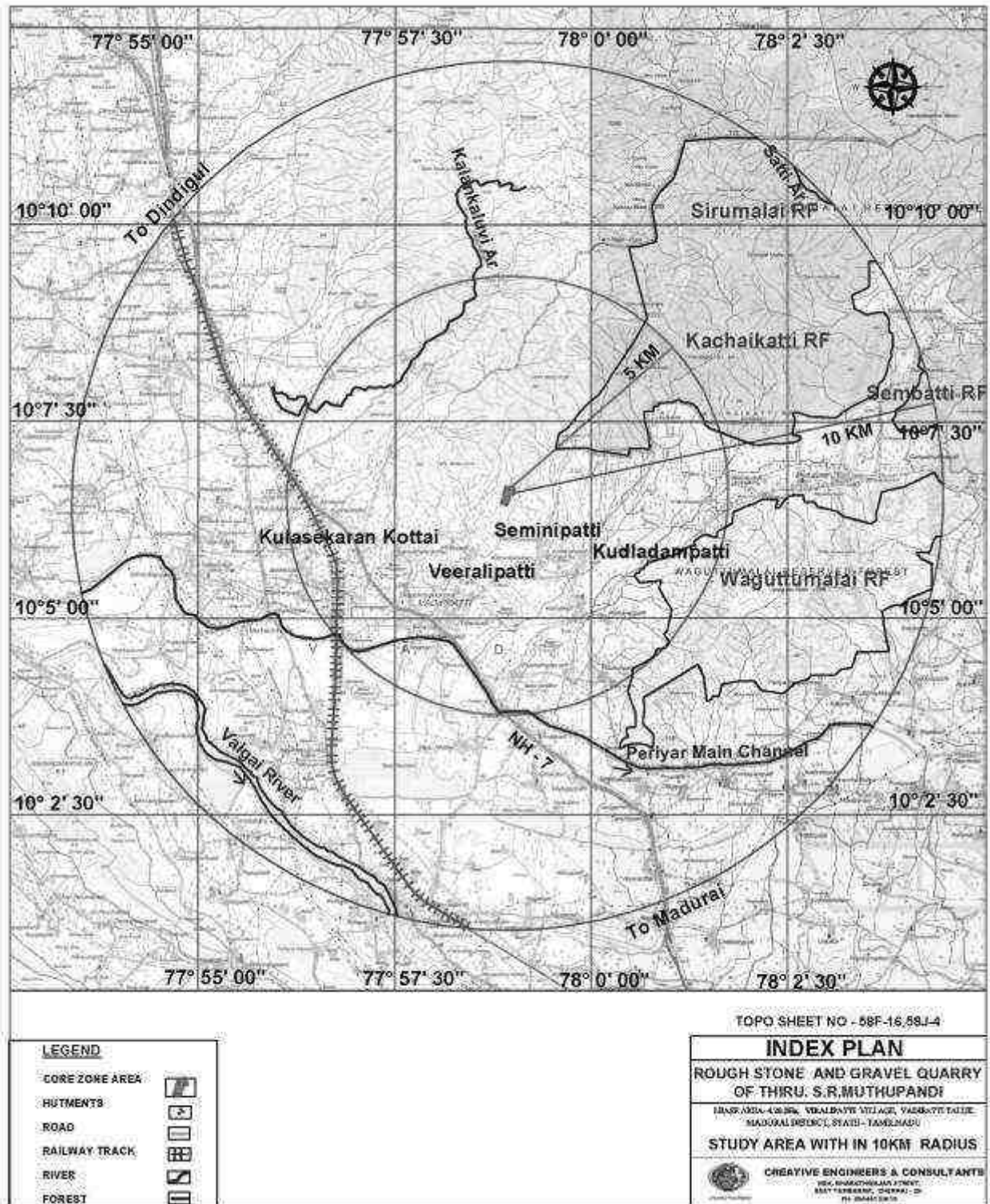
The primary data collection was done by means of field monitoring and the secondary data collection was obtained from published sources and government documents. The details of the baseline data collection which has been elaborated through the course of this chapter has been concised below:

Table 3.1: Type of Baseline Data

S.No	Studies	Parameters / Study	Location
1	Socio Economy	Demographic Data from Census 2011	Core and Buffer Zone
		Sample Survey	Buffer Zone
2	Micro Meteorology	Rainfall Data from IMD, Madurai	Madurai District
		Temperature, Humidity, Wind Speed, Wind Direction	1 Representative Location
3	Ambient Air Quality	PM10, PM2.5, SO2, NOx, CO	1 Core Zone, 4 Buffer Zone
4	Water Quality	Physical and Chemical Parameters	1 Core Zone, 3 Buffer Zone
5	Noise Levels	Ambient Noise	1 Core Zone, 4 Buffer Zone
6	Soil Quality	Physical and Chemical Parameters	1 Core Zone, 2 Buffer Zone
7	Land Use and Land Cover	Land use pattern within 10km study area using RS Satellite	Core and Buffer Zone
		Land use based on Census 2011	Core and Buffer Zone
8	Biological Environment	Flora and Fauna	Core Zone and Buffer Zone
9	Hydrology & Hydro Geology	Hydrogeological profile of the area	Core Zone and Buffer Zone

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Figure 3.1: Study Area Map



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT, TAMIL NADU.

Table 3.2: Environmental Setting of the Study Area

S.No	PARTICULARS	DETAILS
1	Nearest highway	➤ (NH-7) - 2.0 Km– (SW)
2	Nearest Railway station	➤ Vadipatti – 5 Km- (SW)
3	Nearest Airport	➤ Madurai- 35km – (SE)
4	Nearest major water bodies	➤ Kalankaluvi Ar – 3.5km - NW ➤ Satti Ar – 9.8km – NE, ➤ Vaigai River – 8.6km – SW, ➤ Periyar Main Canal – 3.5km – SW
5	Nearest town/City	➤ Thirumangalam – 13 km - NW
6	Nearest villages	➤ Seminipatti -1.1Km (SE)
7	Notified Archaeologically important places, Monuments	Nil within 10km radius
8	Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	Nil within 10km radius
9	Reserved / Protected Forests	➤ Reserve Forest-0.5 Km-N ➤ Kachaikatti RF – 1.4km – NE, ➤ Sembatti RF - 8.9km – E, ➤ Waguttumalai RF - 3.4km – SE, ➤ Sirumalai RF – 6.2km – NE
10	Defence Installations	Nil within 10m radius
11	Seismic Zone	Zone – II (Least Active)
12	Other Industries in the study area	Other than rough stone quarry & crushers there are no other major industries in the area.

3.2 SOCIO-ECONOMIC CONFIGURATIONS OF THE AREA:

3.2.1 GENERAL:

The Socio-Economic details of the study area are collected through:

- Identification of villages falling from the study area map with combined Taluk map.
- Collection of primary data through sample survey, village meetings and discussion.
- Collection of the demographic pattern of villages falling in the area through NIC 2011 census data.



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- Occupational structure of villages falling in the study area through NIC 2011 census data.
- Details of the amenities available in villages falling in the study area through NIC 2011 census data. The findings of the study are illustrated below:

3.2.2 SECONDARY DATA DESCRIPTION:

The proposed Roughstone and gravel quarry is located in Viralipatti Village, Vadipatti Taluk, Madurai District. Based on 2011 census data, in the 10km radius there are 39 Rural villages from Three Taluks namely Vadipatti, Dindigul, Nilakkottai and 3 urban areas namely Vadipatti (TP), Sholavandan (TP) and Ammainaickanur (TP) belonging to Madurai and Dindigul District. The demographic profile of the study area is given below:

Table 3.3: Social, Economic and Demographic Profile of the Study Area

Details	Population	Percentage
A. Gender-wise distribution		
Male Population	105207	50.04
Female Population	105040	49.96
Total	210247	100
B. Caste-wise population distribution		
Scheduled Caste	53765	25.57
Scheduled Tribes	1227	0.58
Others	155255	73.84
Total	210247	100
C. Literacy Levels		
Total Literate Population	143635	68.32
Others	66612	31.68
Total	210247	100
D. Occupational structure		
Main workers	84756	40.30
Marginal workers	21582	10.30
Total Workers	106338	50.60
Total Non-workers	103909	49.40
Total	210247	100

The total population of these 39 rural villages and 3 urban areas is 210247 in which the male population is 105207 (50.04%) and the female population is 105040 (49.96%). This shows that



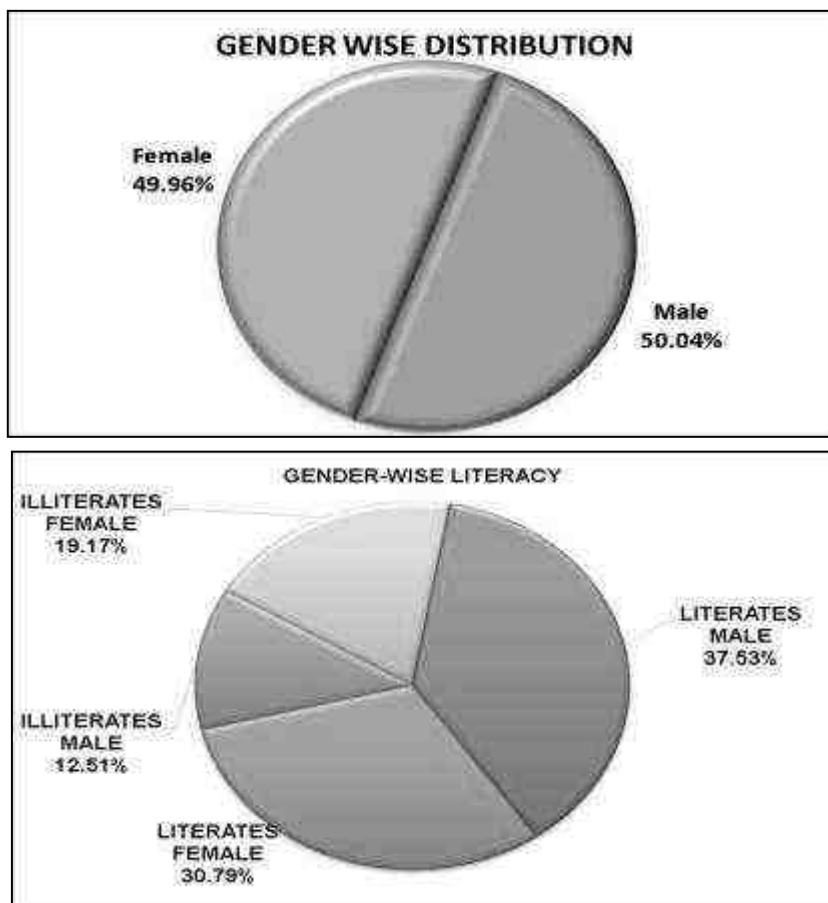
DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT, TAMIL NADU.

the male and female population ratio is almost equal. Among the total population 0.58% belong to Scheduled Tribes, 25.57% are Scheduled Caste and the balance 73.84% people belong to other castes. Among the total population, 68.32% of the people are literate.

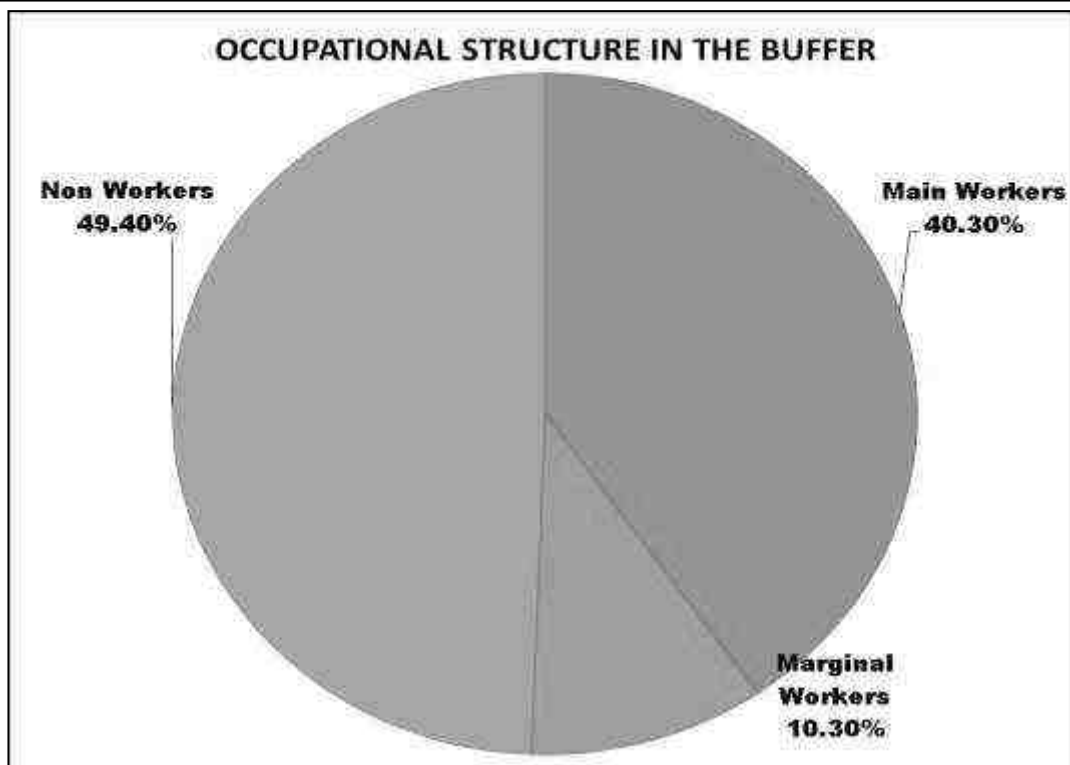
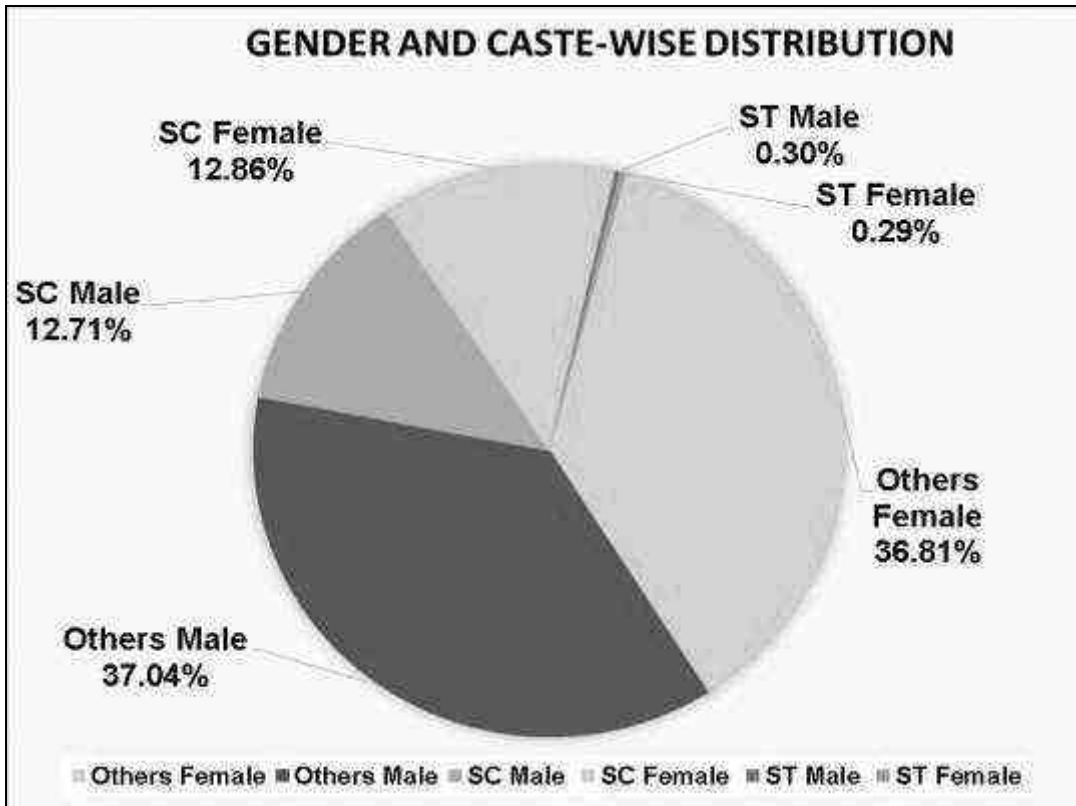
Among the total population, 37.53% are literate males and 30.79% are literate females. This shows that the male literates are slightly more than the female literates.

The village wise population, literacy levels and occupational structure details are given in **Annexures 4 and 5**. The demographic structure within the buffer zone is shown diagrammatically in **Figure No – 3.2**.

Figure 3.2: Demographic Structure in Buffer Zone



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3.2.3 DETAILS OF AMENITIES:

Based on 2011 census data, regarding the educational facilities, there are totally 91 Primary Schools functioning in these 41 rural villages. Among them 9 villages have no primary school, 10 villages have 1 primary schools, 6 villages have 2 primary schools, 6 villages have 3 primary schools, 6 villages has 4 primary schools, 1 villages have 5 primary schools, 2 villages have 6 primary schools, 1 villages have 10 primary schools.

Table 3.4: Primary Schools in the Buffer Zone Rural Villages

S.No	No of Rural Villages	Number of primary schools	Totals
1	9	0	0
2	10	1	10
3	6	2	12
4	6	3	18
5	6	4	24
6	1	5	5
7	2	6	12
8	1	10	10
Total	41		91

Table 3.5: Education Facility Availability

PARTICULARS	Available in village
Govt Primary School	91
Govt Middle School	17
Govt Secondary School	12
Govt Senior Secondary School	7
Govt Arts and Science Degree College	0
Govt Engineering College	0
Govt Medicine College	0
Govt Management Institute	0
Govt Polytechnic	0
Govt Vocational Training School/ITI	0

Better and higher education facilities are available in nearby Madurai & Dindigul city corporation.

Table 3.6: Healthcare Amenities Availability

PARTICULARS	Available in village
Community Health Centre	1
Primary Health Centre	4
Primary Health Sub Centre	25
Maternity And Child Welfare Centre	5
TB Clinic	4
Hospital Allopathic	0



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Hospital Alternative Medicine	0
Dispensary	4
Veterinary Hospital	10
Mobile Health Clinic	0
Family Welfare Centre	4

Better Healthcare facilities are available in nearby town like Madurai & Dindigul City Corporation.

Table 3.7: Infrastructure Facilities

Particulars	Available in village
Tap Water-Treated	37
Covered Well	17
Hand Pump	24
Tube Wells/Borehole	30
Post office	7
bus services	31
Commercial Bank	7
Cooperative bank	9

The details of the educational, medical and infrastructural facilities available in the buffer zone is provided in **Annexures- 6-8**.

3.2.4 SAMPLE SURVEY:

Study of the nearby villages to know about socio-economic conditions, including aspirations and requirements of the people show the following:

- Major part of the northern and eastern part of the study area is dominated with hilly land without any major habitation.
- Southern and eastern part of the lease area are mostly plain land with varying activities
- Agriculture is the main occupation in villages along the Vaigai river side and in lands where bore well facilities are available. Farmers in the locality mainly depend on rain for water source.
- Majority of the people are small farmers. They also work as agriculture laborers. As it is river fed agriculture and the water is available only in rainy season, during the rest of the time they have less employment opportunities. Other occupations include construction workers, vendors, etc. Nearby town and SIPCOT industries, Mills also provide good employment opportunity for the locals.



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- Due to inconsistent rainfall, poor soil condition/ yield, non availability of workers for farming due to better employment opportunities available in nearby town and other places due to less economics, locals have migrated to better avenue and only handful of people are in this activity.
- Other allied activities like livestock rearing and poultry farming are also found.
- Reasonably better amenities like approach road bus facility, electricity, mobile phone connectivity, Public Distribution System , Co operative bank. Scheduled banks etc are available.
- Bore well is the main source for drinking water. There are OHT's, Ground level tanks, public taps are available .
- Private and more improved facilities are available in Thirumangalam, Madurai

3.3 EXISTING ENVIRONMENTAL QUALITY

3.3.1 MICRO-METEOROLOGY

3.3.1.1 General:

The meteorological conditions in an area regulate the dispersion of air pollutants being released into the atmosphere. The principal variables are horizontal convective transport i.e. wind speed and direction and vertical convective transport, i.e. mixing height, stability class and topography of the area.

3.3.1.2 Historical Meteorological Data:

A. Cyclones And Depressions

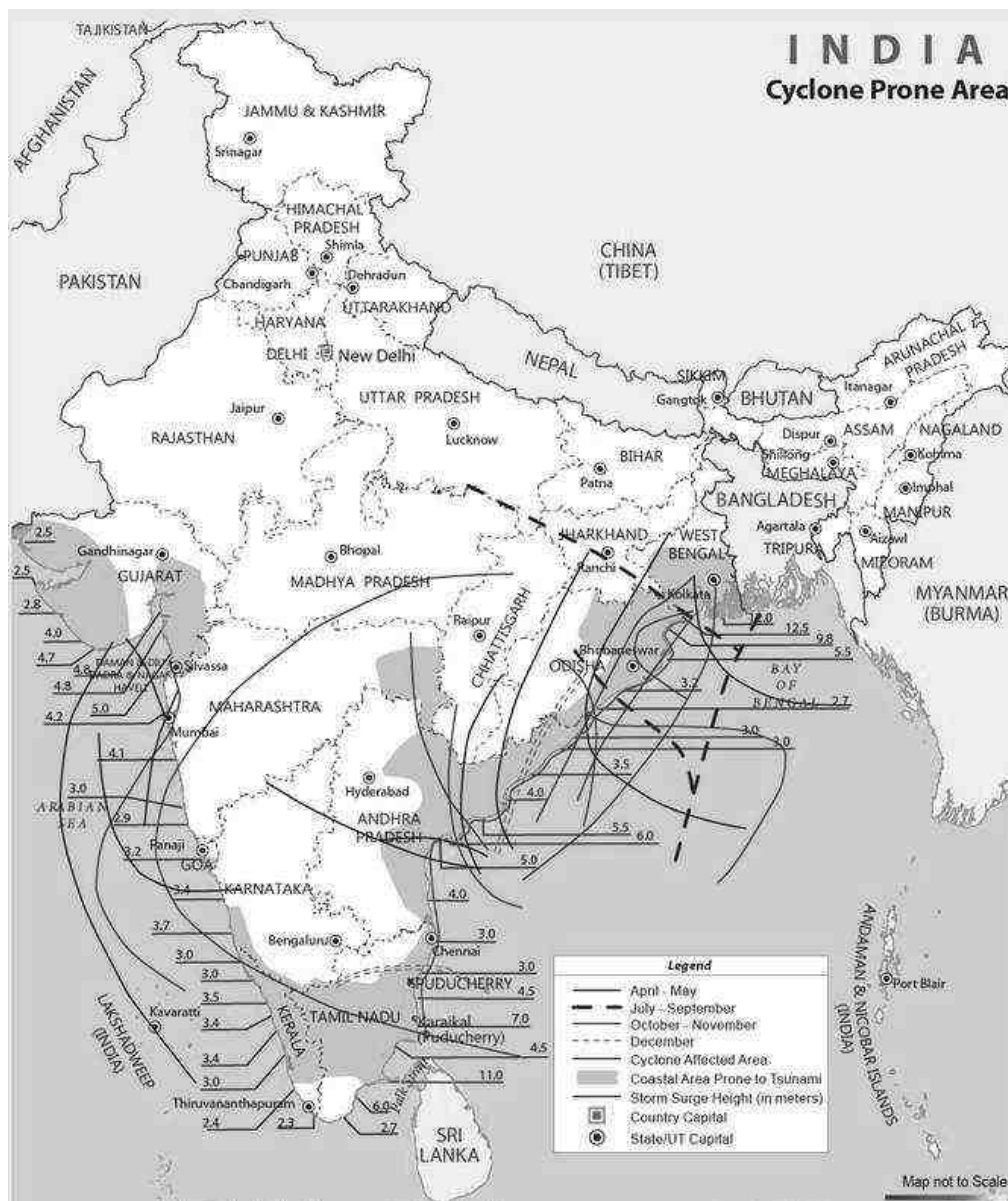
Cyclonic storms and depressions in Bay of Bengal affect the East Coast of India. Isolated ones, forming in January to March in the South Bay of Bengal move West-North-westwards and hit Tamil Nadu coast. In April and May, cyclonic storms and depressions form in the South and adjoining Central Bay and move initially to the Northwest, then North and then recurve to the Northeast striking the Arakan coasts in April and Andhra Pradesh (AP)-Orissa-West Bengal (WB) – Bangladesh coasts in May. Most of the monsoon (June – September) storms develop in the central and in the north bay and move west – north - westwards affecting AP – Orissa – WB coasts. Post monsoon (October – December) storms form mostly in the south and central Bay,



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recurve between 150 and 180 N affecting Tamil Nadu – AP – Orissa – WB – Bangladesh coasts. **Figure No - 3.3** depicts the history of cyclonic storms, which have struck the Indian coast during the months of October, November and December during the last 75 years. (Source: Vulnerability Atlas of India series, above figure accessed from www.maps of india.com). East coast is prone to cyclonic storms round the year but mostly these occur prior to SW i.e., in May and after SW monsoon i.e., in October and November.

Figure 3.3: History of Cyclonic Storms

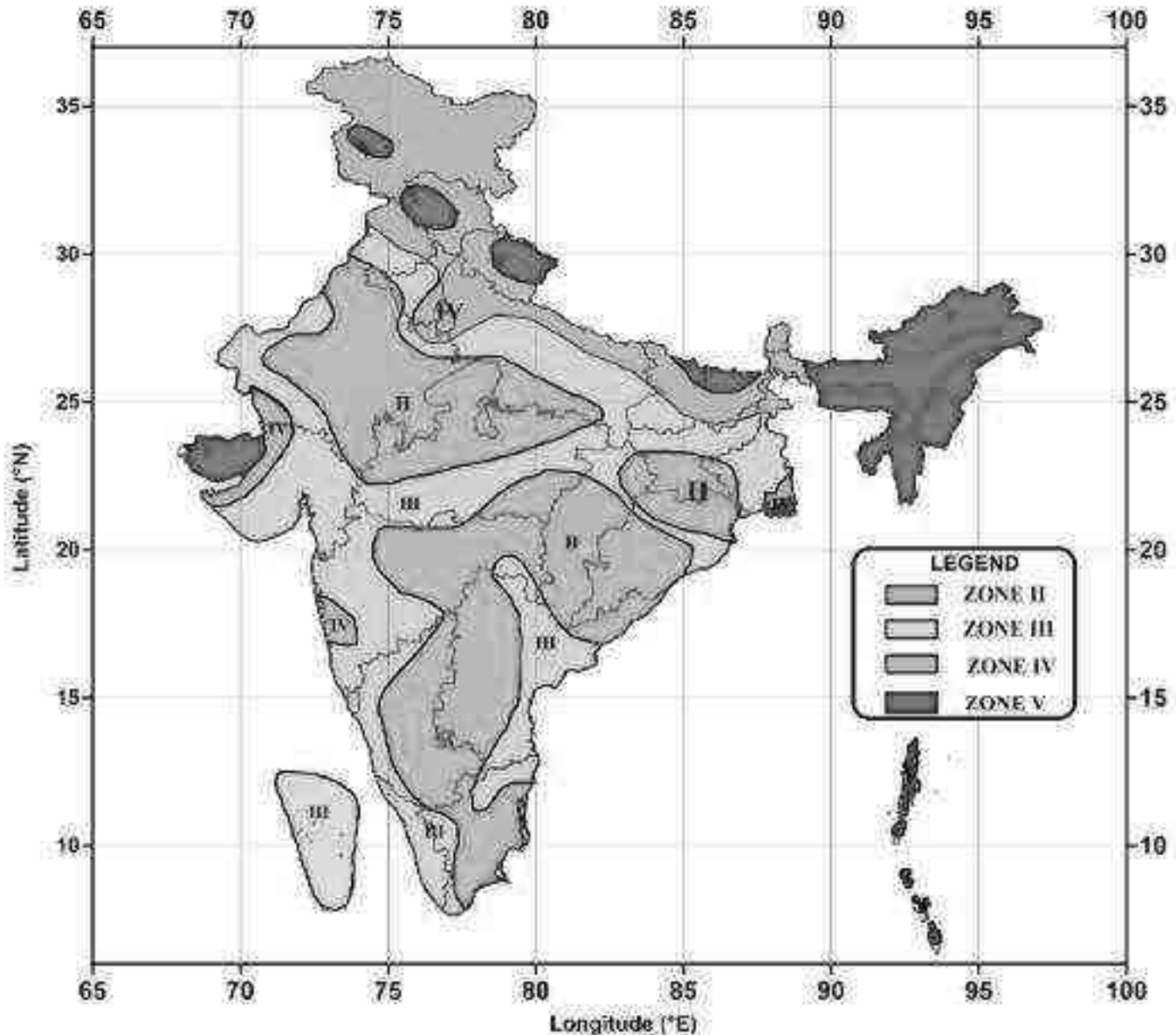


DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT, TAMIL NADU.

B. SEISMIC DATA

From the seismic zone map of India as depicted in the **Figure No - 3.4**, it can be seen that the project site and study area falls in the Zone – II and is described as least active zone.

Figure 3.4: Seismic Zone Map of India



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C. Climate and Rainfall Data:

Analysis of long term rainfall data (1901-2004) shows that the district receives rainfall during NE monsoon (47%) , SW monsoon (32%), summer (17%) and winter (4%). The normal annual rainfall varies from 806 mm (Sholavandan Rain Gauge Station) in the northern part to 964.1 mm (Melur Rain gauge Station) in the eastern part of the district. The entire district experiences a declining trend in annual rainfall except at Melur, where a rising trend is noticed.

The climate is subtropical and the temperature varies from 15 to 41°C in the district. The relative humidity varies from 45 to 85% and is high during NE monsoon.

Table 3.8: Average Annual Rainfall Data

The average annual rainfall and the 5 years rainfall collected from IMD, Madurai as follows:

Actual Rainfall In mm					Normal Rainfall In Mm
2017	2018	2019	2020	2021	
904.6	734.1	671.9	915.5	1095.2	985

Source – IMD, Madurai report

3.3.1.3 SITE SPECIFIC METEOROLOGICAL DATA:

Micrometeorology and microclimatic parameters of wind velocity, wind direction, ambient temperature, relative humidity, were collected throughout the monitoring period.

DATA ANALYSIS:

The temperature in the area during the study period ranged from 13.7°C to 40.0°C while the relative humidity varied between 17.0 - 99%. The wind speed during the study period ranged from <1.8 to 31.0 km/h. The predominant wind direction is from E. The meteorological data are presented in **Table no – 3.9**. The average wind rose is depicted in **Figure No - 3.5**.

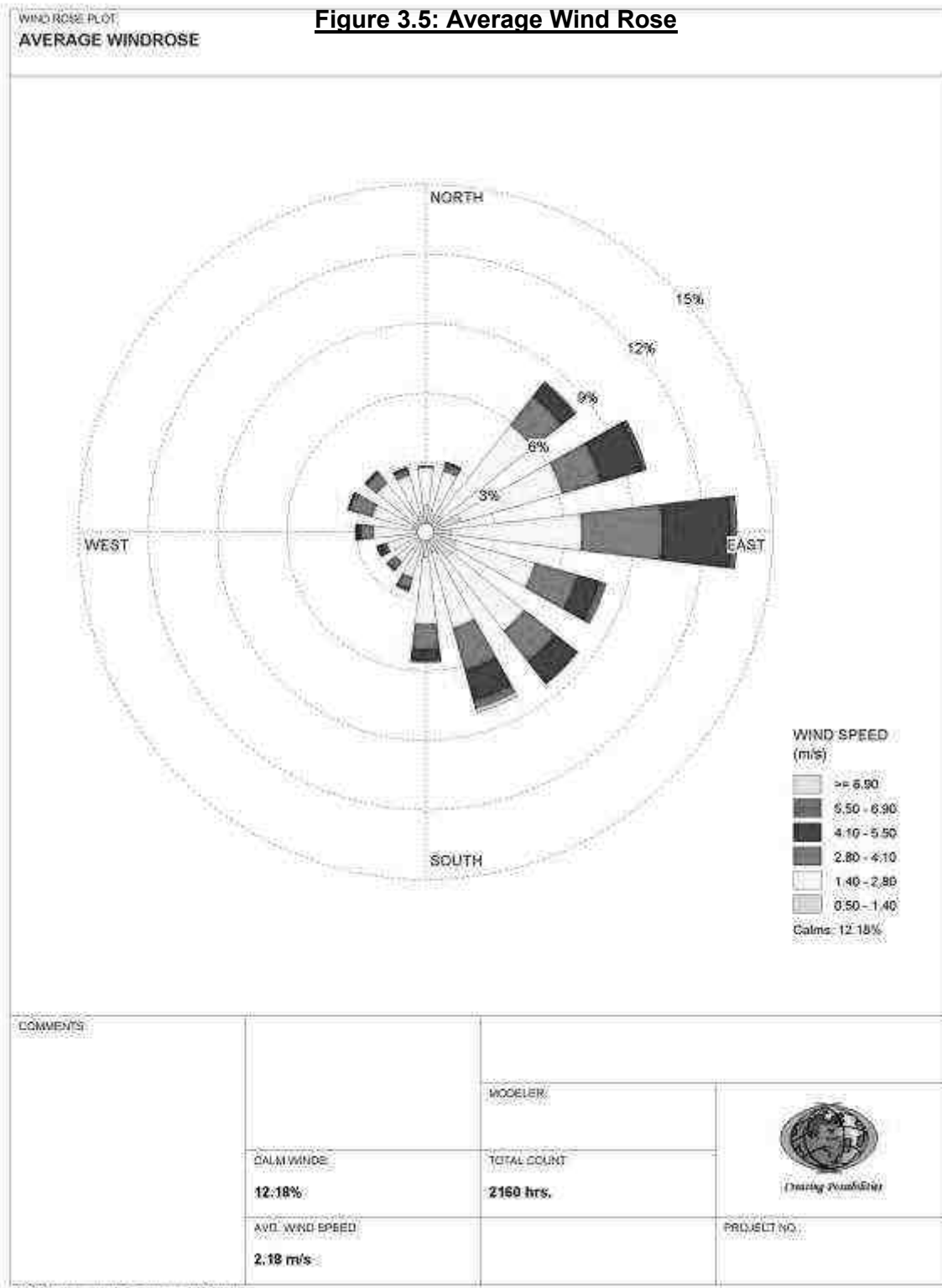
Table 3.9: Meteorological Data

Season: Winter Season (March 2023 to May 2023)			
S.NO	PARAMETERS	MIN	MAX
1	Temperature In °c	13.7	40.0
2	Humidity in %	17.0	99.0
3	Wind speed in km/hr	<1.8	31.0
4	Predominant wind direction from	E	



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Figure 3.5: Average Wind Rose



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT, TAMIL NADU.

3.3.2 AMBIENT AIR QUALITY (AAQ):

Ambient Air quality has been assessed through a network of 5 ambient air quality stations. The following methodology has been considered for design of ambient air quality monitoring network in the area. Based on these criteria, 5 numbers of air sampling stations were selected in the area as shown below in Table No.3.10.

- ❖ Topography / terrain of study area.
- ❖ Populated areas within study area.
- ❖ Residential /sensitive areas within study area.
- ❖ Magnitude of surrounding industries.
- ❖ Representation of regional background levels.
- ❖ Representation of cross sectional distribution in down wind direction.
- ❖ Predominant wind direction and wind pattern.

Table 3.10: Air Quality Monitoring

1.	Monitoring Period	Summer Season (March 2023 – May 2023)
2.	Monitoring Location	The location map showing Ambient Air Quality study stations are shown in Figure No- 3.6.
3.	Methodology	
	Parameter	Protocol
	a. Particulate Matter (PM10)	Gravimetric (IS 5182: Part 23:2017)
	b. Particulate Matter PM2.5	Gravimetric (IS 5182: Part 24:2019)
	c. Sulphur Dioxide	Colorimetric (West & Gaeke Method) (IS 5182: Part 02: 2017)
	d. Nitrogen Dioxide	Colorimetric(Modified Jacob & Hocheiser Method) (IS 5182: Part 06:2017)
	e. Carbon Monoxide	CO Monitor
	f. Silica	Colorimetric (Molybdate Method) NIOSH 7601 -2003
4.	Monitoring Frequency	2 days in a week, 4 weeks in a month for 3 months in a season.

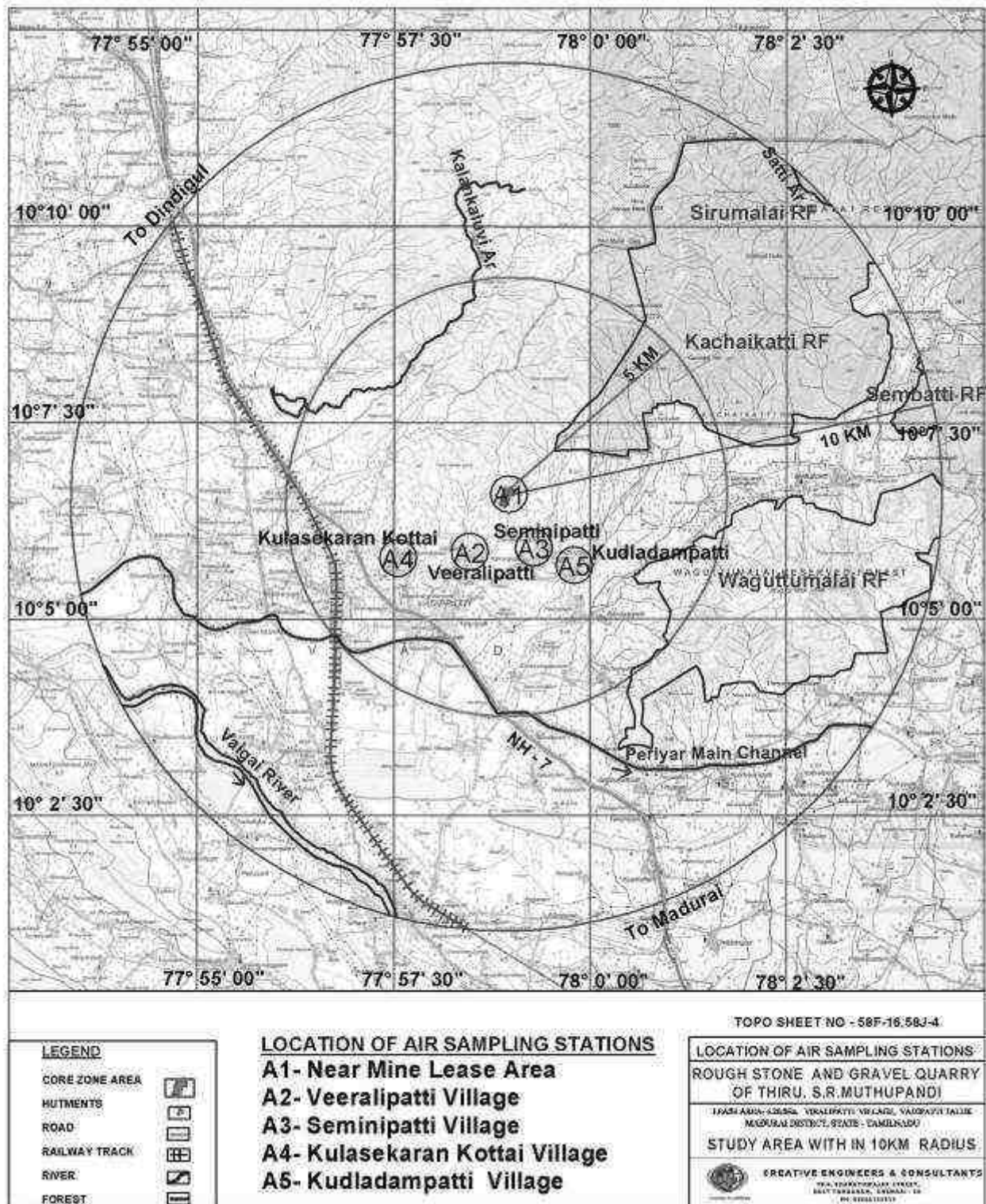
Table 3.11: Air Quality Monitoring Locations

S.NO	LOCATION CODE	LOCATION	DISTANCE FROM CORE ZONE (KM)	DIRECTION
1	A1	Near Mine Lease Area	-	-
2	A2	Veerali Patti Village	1.3km	SW
3	A3	Semini Patti Village	1.1km	SE
4	A4	Kulasekaran Kottai Village	2.7km	SW
5	A5	Kudladampatti Village	2.1km	SE



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Figure 3.6: Ambient Air Quality Study Stations



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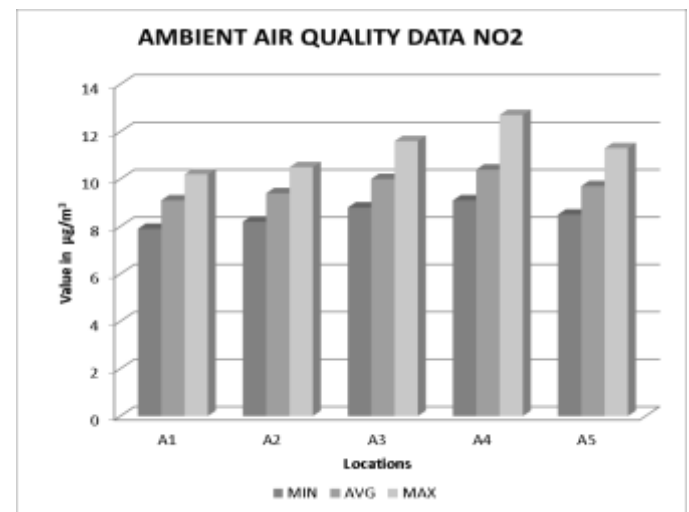
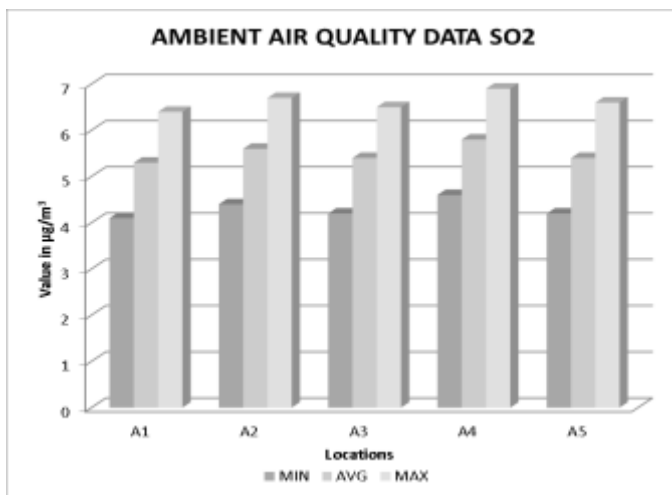
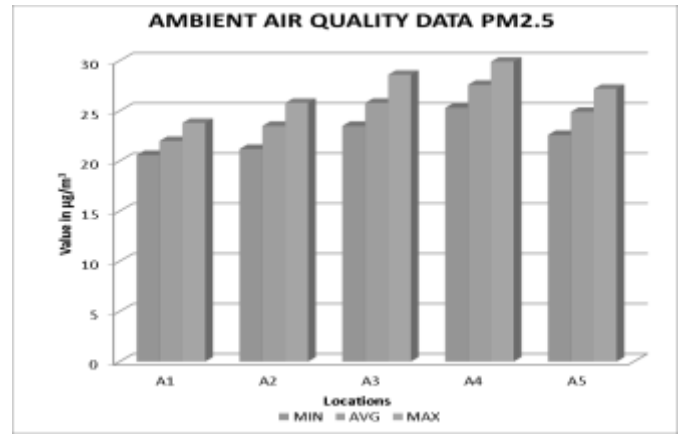
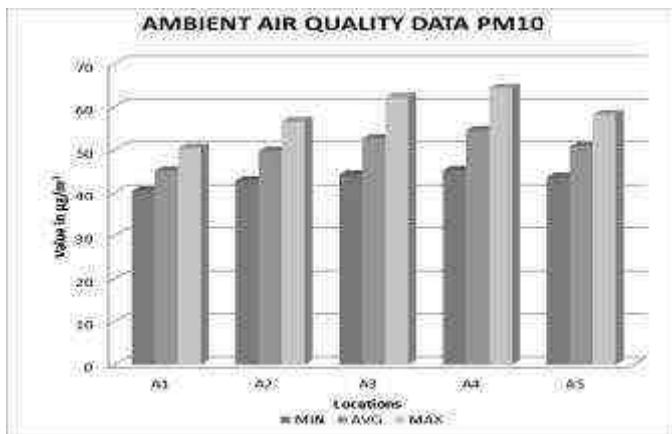
Table 3.12: Ambient Air Quality Data

All Value in $\mu\text{g}/\text{m}^3$

PARAMETERS	Cat.*	PM ₁₀			PM _{2.5}			SO ₂			NO ₂		
		MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX
A1-Near Mine Lease Area	I	40.4	45.1	50.4	20.6	22	23.8	4.1	5.3	6.4	7.9	9.1	10.2
A2-Veerali Patti Village	R	42.8	49.7	56.6	21.2	23.5	25.8	4.4	5.6	6.7	8.2	9.4	10.5
A3-Semini Patti Village	R	44.2	52.6	62.2	23.5	25.8	28.6	4.2	5.4	6.5	8.8	10	11.6
A4-Kulasekaran Kottai Village	R	45.2	54.5	64.3	25.3	27.6	29.9	4.6	5.8	6.9	9.1	10.4	12.7
A5-Kudladampatti Village	R	43.6	50.7	58.2	22.6	24.9	27.2	4.2	5.4	6.6	8.5	9.7	11.3
NAAQ Limits		PM₁₀			PM_{2.5}			SO₂			NO₂		
	*	100			60			80			80		
	**	100			60			80			80		

***Note:** Category: * - Industrial, Residential, Rural and other area, ** – Ecologically Sensitive Area (notified by Central Government)

Figure 3.7: Ambient Air Quality Data



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3.3.2.1 Results and Discussion:

The AAQ monitored data for all locations for above parameters are shown in **Table No - 3.12** and in **Figure No - 3.7**. Ambient Air Quality data during the study period is given in **Annexure-9**. From the table it is seen that, in the ambient air, the PM₁₀ values were in the range of 40.4-64.3 µg/m³. PM_{2.5} values were in the range of 20.6 – 29.9 µg/m³. SO₂ levels were ranging from 4.1– 6.9 µg/m³. NO₂ levels were ranging from 7.9-12.7 µg/m³.

The existing Ambient Air Quality levels for PM₁₀, PM_{2.5}, SO₂ and NO₂, are within the NAAQ standards prescribed CPCB limits of 100 µg/m³, 60 µg/m³, 80 µg/m³ & 80 µg/m³. The CO values in all the locations were found to be below detectable limit. Silica values in the study area are found to be below detectable limit. (Detection limit – 0.05 mg/m³)

3.3.3 WATER ENVIRONMENT:

Assessment of baseline data on water environment includes Identification of water resources, Collection of water samples and Analyzing water samples collected for physico-chemical parameters as per standards. The water sampling was carried out for 4 locations. Details of the same has been provided below:

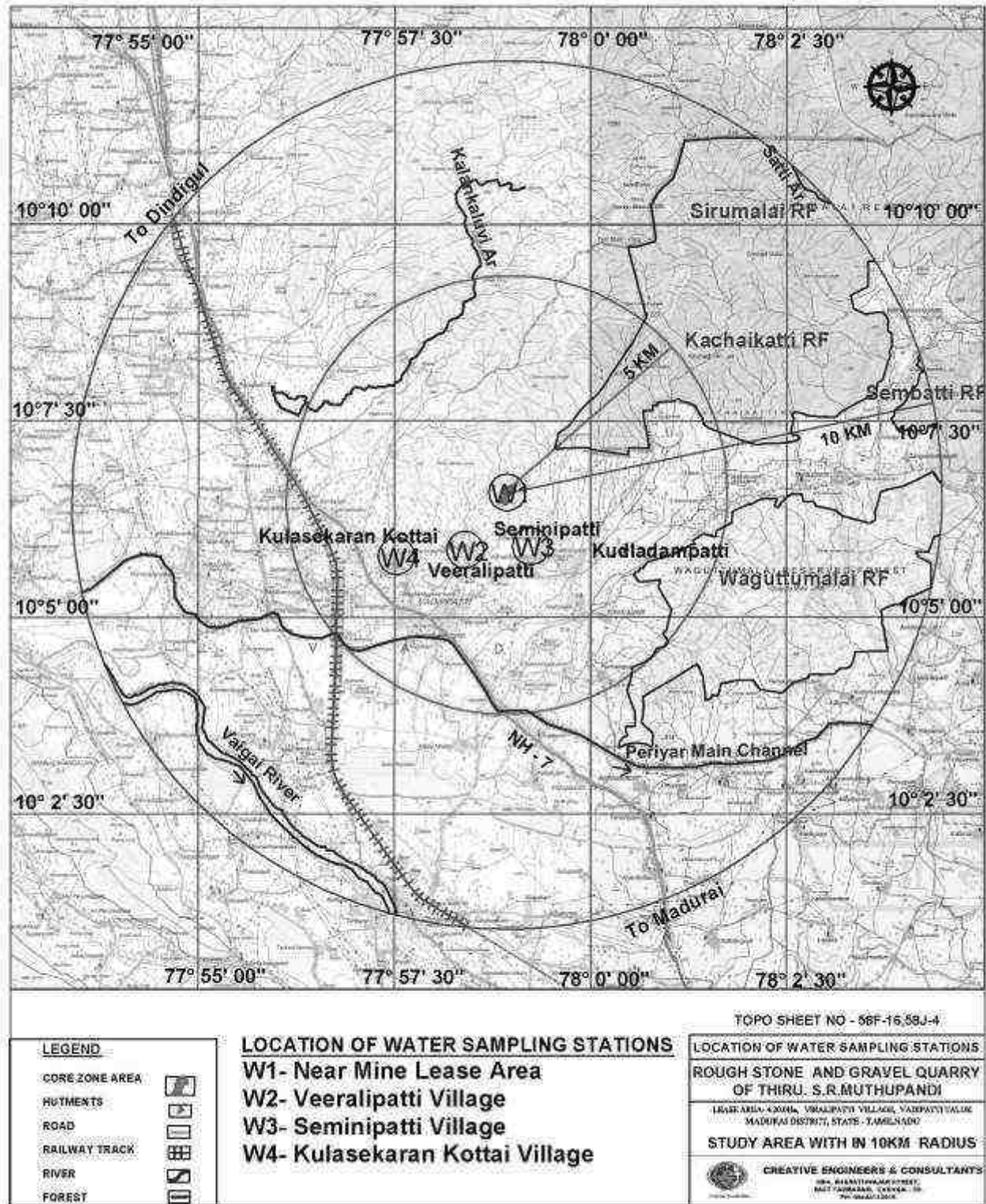
Table 3.13: Water Quality Monitoring

1.	Monitoring Period		Summer Season (March 2023 – May 2023)		
2.	Monitoring Location		The location map showing water sampling locations are given in Figure No.3.8.		
	Code	Location	Sample Type	Distance	Direction
	W1	Near Mine Lease Area	Bore Well	-	-
	W2	Veerali Patti Village	Borewell	1.3km	SW
	W3	Semini Patti Village	Borewell	1.1km	SE
	W4	Kulasekaran Kottai Village	Borewell	2.7km	SW
3.	Methodology		Sampling - IS 3025 Part - I		
			Analysis – IS 3025 relevant parts / APHA 23rd Edition		



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Figure 3.8: Location of Water Sampling Stations



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Table 3.14: Summary of Water Quality Data

Season	March 2023 to May 2023	
Monitoring Locations	4 locations	
Parameters	Range of values	Limits*
pH at 25 °C	7.59 – 7.98	6.5-8.5
Total Dissolved Solids, mg/L	425 – 802	2000
Chloride as Cl-, mg/L	118 – 390	1000
Total Hardness (as CaCO ₃), mg/L	227 – 338	600
Total Alkalinity (as CaCO ₃), mg/L	194– 274	600
Sulphates as SO ₄ ²⁻ , mg/L	45.7 – 138	400
Iron as Fe, mg/L	0.03 – 0.07	0.3
Nitrate as NO ₃ , mg/L	2.68 – 4.56	45
Fluoride as F, mg/L	0.36 – 0.55	1.5

3.3.3.1 Results and Discussion:

The results of the water sample analysis are shown in Table No - 3.14. The pH values were ranging in between 7.59 – 7.98. TDS values were in the range of 425 – 802mg/L. Chloride values were ranging from 118 – 390mg/L. Iron content was found to be in the range 0.03– 0.07mg/L. The water quality of ground water is found to be within the prescribed Permissible limits of IS: 10500 Norms in the absence of an alternative source as per Drinking Water Specifications. The water quality data is provided in **Annexure-10**.

3.3.4 NOISE ENVIRONMENT:

Operational phase of this project may lead to increase noise levels from the existing levels at least in and around the project area. As noise level beyond permissible limits will cause adverse impacts on the environment, it has become imperative to assess the noise levels in and around the mine area. Noise level measurements were taken at the 5 locations during the monitoring period. Details of the same are provided below:



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Table 3.15: Noise Level Monitoring

1.	Monitoring Period	Summer Season (March 2023 – May 2023)		
2.	Monitoring Location	The location map showing noise monitoring locations are given in Figure No.3.9.		
	Code	Location	Distance	Direction
	N1	Near Mine Lease Area	-	-
	N2	Veerali Patti Village	1.3km	SW
	N3	Semini Patti Village	1.1km	SE
	N4	Kulasekaran Kottai Village	2.7km	SW
3.	Methodology	Noise levels were measured using sound level meter manufactured by (Model No - SL- 4001, Make - Lutron). Sound Pressure Level (SPL) measurements were measured at all locations where ambient air quality monitored; one reading for every hour was taken for 24 hours.		
4.	Monitoring Frequency	Once during monitoring period		



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Figure 3.9: Location of Noise Sampling Stations

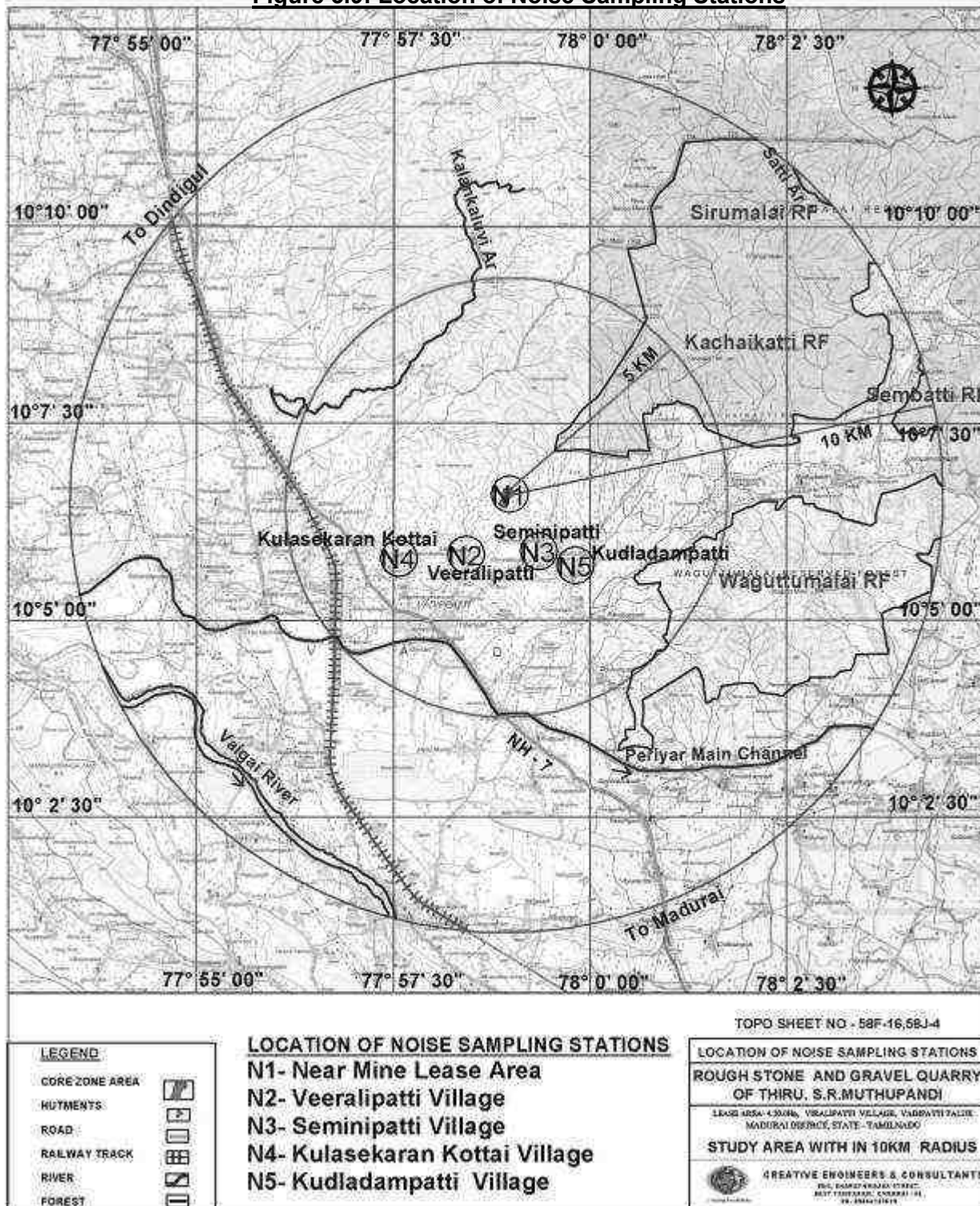
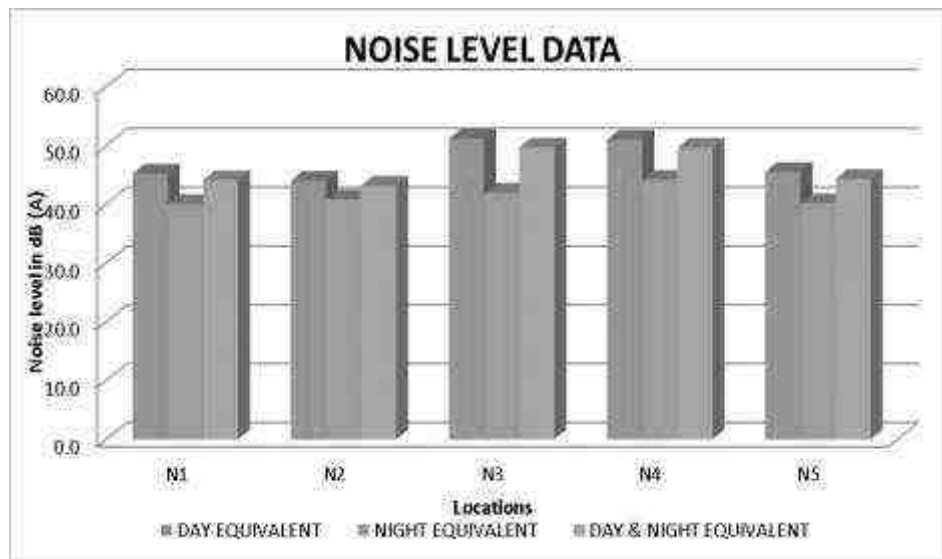


Table 3.16: Ambient Noise Level in dB (A)

Date and time of monitoring	N1	N2	N3	N4	N5
Day Equivalent	45.2	44.0	51.1	50.9	45.5
Night Equivalent	40.0	40.9	41.9	44.1	40.1
Day & Night Equivalent	44.1	43.2	49.6	49.6	44.3

Figure 3.10: Noise Level Data



3.3.4.1 Results and Discussion:

The results of noise levels for all locations are given in **Table No-3.16**. The noise values for all above locations are shown in a comparative chart given in **Figure No - 3.10**. In the buffer zone, day Equivalent Noise (Leq-d) noise levels were ranging from 44.0 dB(A) to 51.1 dB(A) and night Equivalent Noise (Leq-d) levels ranged between 40.0 dB(A) to 44.1 dB(A). While comparing with the MOEF&CC Norm of 55 dB(A) for day time and 45 dB(A) for night time, the monitored ambient noise levels were within the limit values for Residential areas.

3.3.5 SOIL CHARACTERISTICS:

Soil samples were collected in 3 locations in the core and buffer zone to analyse the physiochemical characteristics of the soil in the area. Elaborate details of the same has been provided below.

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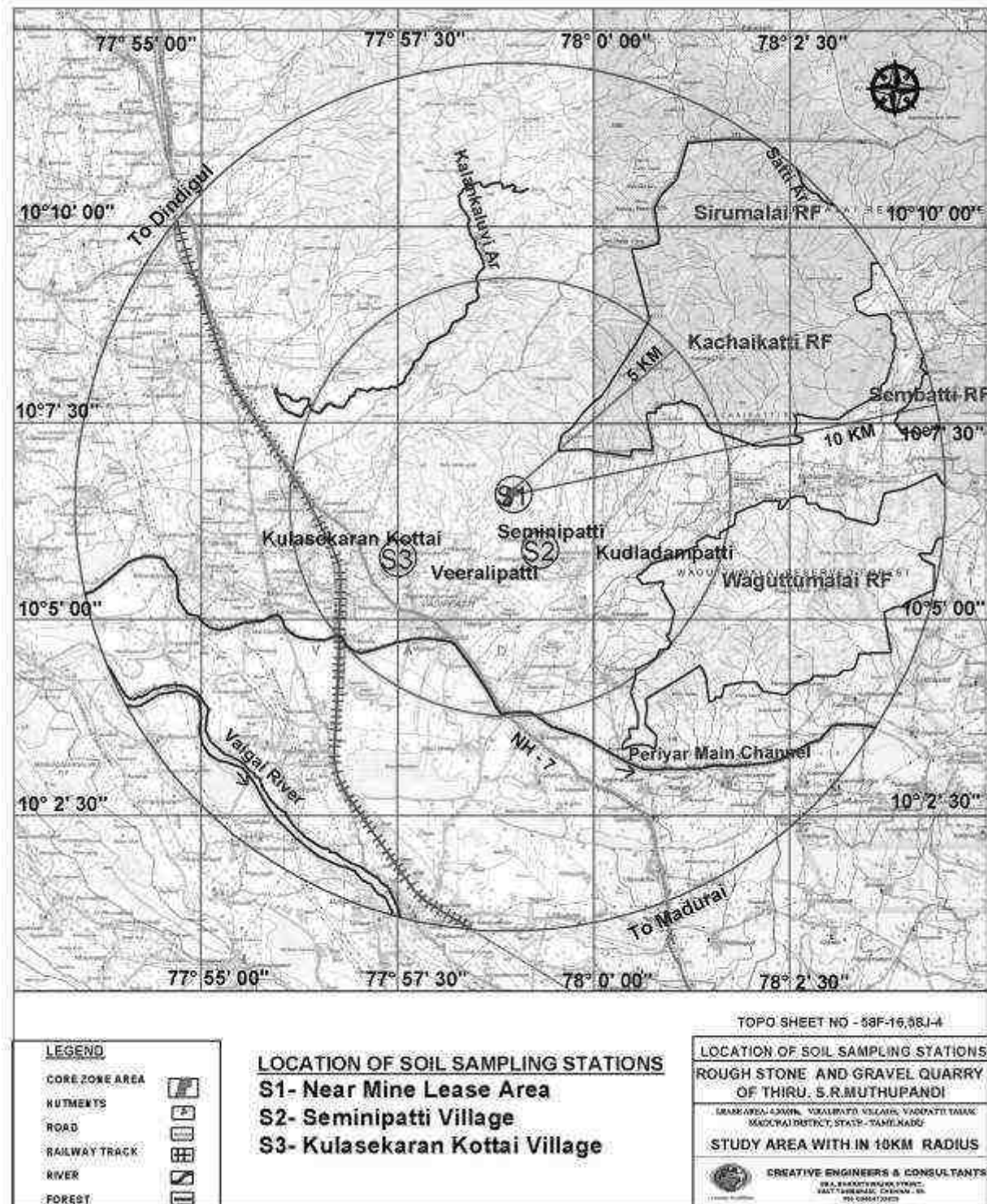
Table 3.17: Soil Quality Monitoring

1.	Monitoring Period	Summer Season (March 2023 – May 2023)		
2.	Monitoring Location	The location map showing soil sampling locations are given in Figure No.3.11.		
	Code	Location	Distance	Direction
	S1	Near Mine Lease Area	-	-
	S2	Semini Patti Village	1.1km	SE
	S3	Kulasekaran Kottai Village	2.7km	SW
3.	Methodology	Composite soil samples using sampling augers and field capacity apparatus.		
4.	Monitoring Frequency	Once during monitoring period		



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Figure 3.11: Location of Soil Sampling Stations



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Table 3.18: Soil Quality Data

S.No	Parameters	Unit	S1	S2	S3
1	pH at 25°C	-	7.18	6.92	6.85
2	Electrical Conductivity	(µmhos/cm)	38.95	45.87	65.42
3	Dry matter content	%	95.47	96.58	97.24
4	Water Content	%	4.53	3.42	2.76
5	Organic Matter	%	0.72	0.89	1.32
6	Soil texture	-	loam	clay loam	loam
7	Grain Size Distribution i. Sand	%	50.68	25.98	44.21
8	ii. Silt	%	32.28	35.87	29.05
9	iii. Clay	%	17.04	38.15	26.74
10	Phosphorous	µg/g	1.62	1.44	2.09
11	Sodium	mg/kg	420	345	397
12	Potassium	mg/kg	645	682	780
13	Total Nitrogen	mg/kg	150	197	234
14	Total Sulphur	%	BDL(D.L - 0.02)	BDL(D.L - 0.02)	BDL(D.L - 0.02)

3.3.5.1 Results and Discussion:

Results of the soil samples show that the pH values were ranging between 6.85 to 7.18 and Electrical Conductivity values were ranging between 38.95 – 65.42 µmhos/cm. Soils are generally Clay Loam type. Organic matter values were ranging between 0.72 – 1.32%. Total Nitrogen values were ranging between 150 - 234mg/kg. Phosphorus values were ranging between 1.44 – 2.09µg/g. Potassium values were ranging between 645 - 780 mg/kg. Sodium values were ranging between 345- 420 mg/kg. Total Sulphur values were observed to be BDL. The soil quality data for the 3 samples collected and analyzed are provided in **Table No – 3.18.**

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3.4 LAND ENVIRONMENT - LANDUSE & LAND COVER

For preparing an impact statement, aspects of the land conditions are covered under land use. An industrial project / mine can cause changes in land use, soil process in different intensities depending upon the size of the project and distance involved between the industries and the area. Here, land use status for a radius of 10 km has been studied.

3.4.1 DATA USED AND METHODOLOGY

For the present study on land use pattern of buffer area around the proposed stone and gravel quarry, an archived historical data of Landsat-8 data shas been used as base data acquired on May 2023 (Figure No.3.12) has been used to generate the require landuse map showing their spatial pattern within the buffer area. The table showing data used for generation of information on landuse and subsequent GIS analysis is given below

Table 3.19: RS satellite image used for the present study

S.No	Type of Data	Date	Generated Map
1.	Landsat-8	May 2023	Landuse (LU) Map showing 10 Km around the ML area

Interpretation of satellite image requires understanding of relationship between image elements and their respective terrain elements. Since, in the present study, the landuse information is obtained using visual interpretation, an interpretation key is generated. The image elements such as color, tone, texture, size, shape and associated elements have been used to delineate various landuse categories. The landuse categorization and nomenclature used in the present study is based on the national level landuse classification system, which is adopted for the entire country as recommended by National Remote Sensing Centre (NRSC), Department of Space, Government of India.



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Figure 3.12 : Landsat 8 Satellite Data of the Study Area

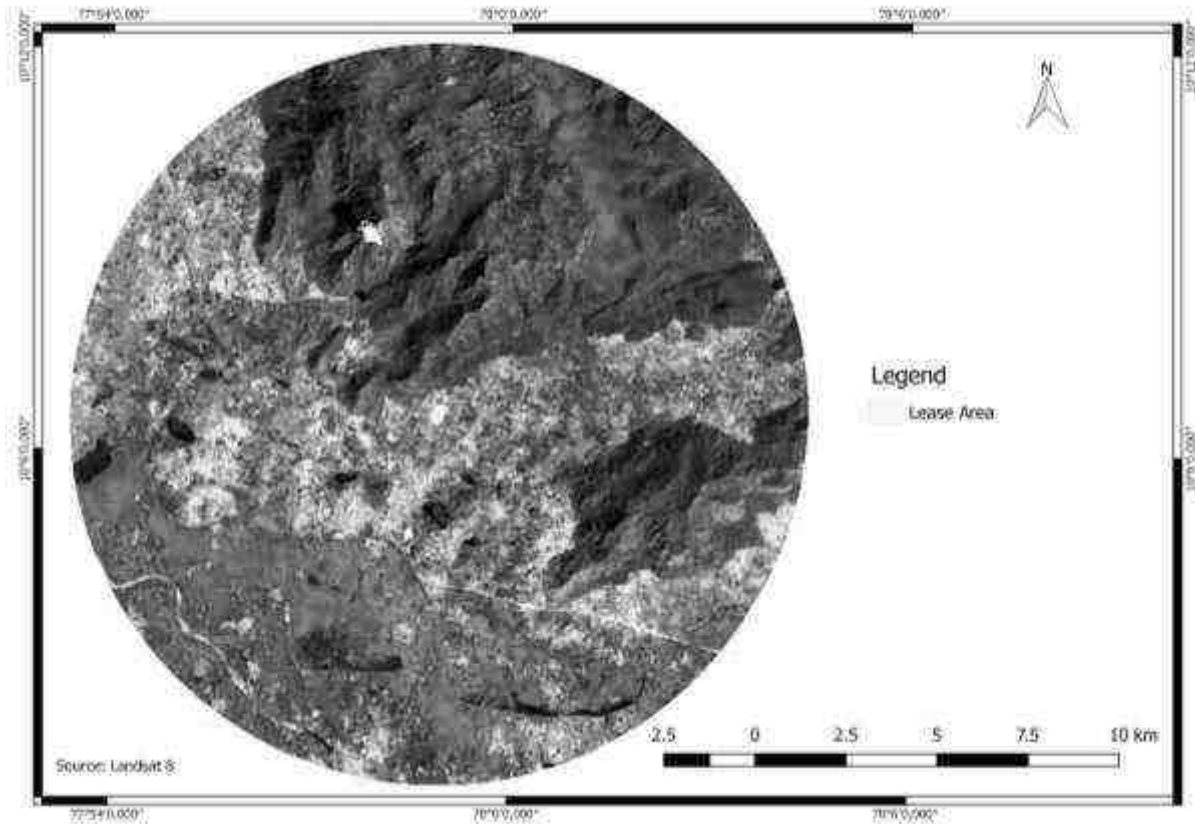


Table 3.20: Major Landuse Units of the Study Area

S.No	Major Category	Landuse unit
1	Built-Up Land	Village, Town, Industrial / Vacant Area
2	Agricultural Land	Crop Land Fallow Land Plantation Farm Land
3	Forest Land	Open Scrub Forest
4	Waste Land Mining Area	Land With Scrub/ Land Without Scrub Barren Rocky/ Stony Waste Quarries / Abandoned Quarries
5	Waterbodies	Tanks/ Rivers / Streams

Such LandUse and Land cover (LULC) categories have been verified using field check and identified sample sites within the buffer area, verified on field and transferred into gis geo-coordinates using observation coordinates received from hand held GPS (global positioning system) instrument. Thus, an interpreted final landuse map has been generated (Figure No. 3.13) using above such elaborate procedure and transformed into GIS environment for its spatial distribution and area estimation. Spatial nature and extent of various landuse categories within the buffer area is discussed is given below:

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Figure 3.13: Map Showing Land Use Categories around 10km Buffer

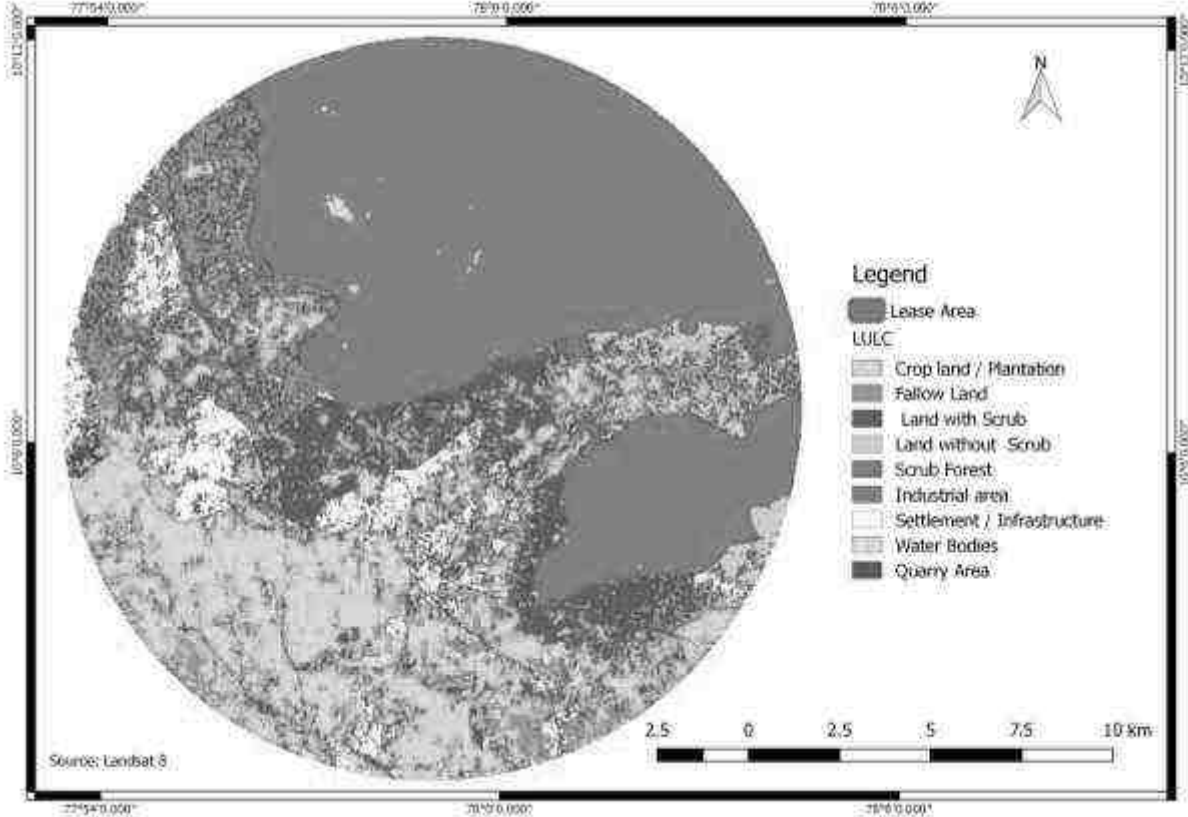


Table 3.21: Area Estimation of Landuse Categories in Buffer Zone

S.No	Landuse Feature	Area (Sq.Km)	Percentage
1	Crop Land / Plantation	54.79	16.84
2	Fallow Land	23.58	7.25
3	Land With Scrub	75.51	23.21
4	Land Without Scrub	2.12	0.64
5	Scrub Forest	108.23	33.27
6	Industrial area	0.33	0.10
7	Settlement & Infrastructure	55.03	16.92
8	Water bodies	2.54	0.78
9	Mining Area	3.04	0.93
	Total	325.21	100

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From the above table it is seen that 16.84 % of the study area is agriculture land and 7.25 % are fallow land. Land with scrub constitutes 23.21 %, lands without scrub constitute 0.64 %, Scrub forest constitute 33.27 % , waterbodies constitute 0.78 % & others constitute 2.45 %.

3.4.2 LAND USED BASED ON REVENUE RECORDS:

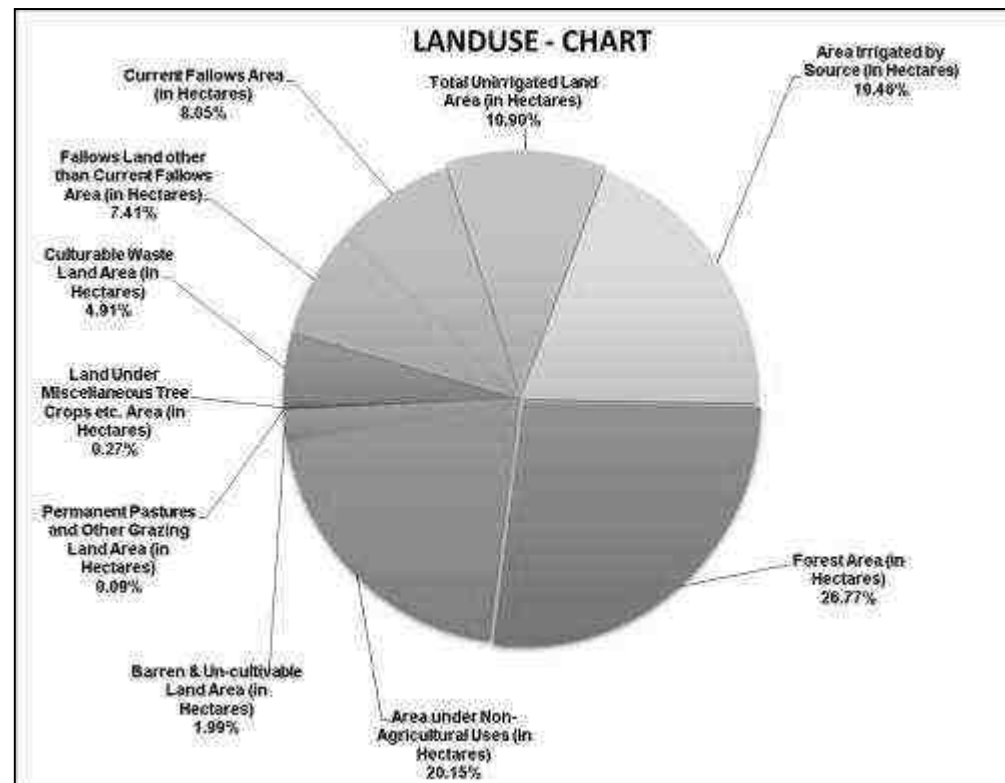
The lease area falls in Viralipatti village, Vadipatti Taluk, Madurai District, Tamil Nadu state and the study area for the land use pattern (10 km radius) has been divided into four zones viz. Zone-I (0-2 km), Zone-II (2-5 km), Zone-III (5-10 km) and Zone-IV (0-10 km) respectively. The land use pattern of the study area falling within 10 km radius around the proposed project area is presented in Table no - 3.22. Village wise land use pattern is provided in **Annexure-11**.



Table 3.22: Land Use Pattern of the Study Area Falling Within 10 Km Area in (Ha)

Study Area	Total Geographic Area	Forest Area	Area under Non-Agricultural Uses	Barren & Un-cultivable Land Area	Permanent Pastures and Other Grazing Land Area	Land Under Miscellaneous Tree Crops etc. Area	Culturable Waste Land Area	Fallows Land other than Current Fallows Area	Current Fallows Area	Total Un irrigated Land Area	Area Irrigated by Source
0- 2 KM	1640.28	1218.09	115.53	2.48	0	1.88	3.17	47.48	126.57	6.23	118.85
2 - 5 KM	2898.85	501.46	312.72	28.26	0	5.78	79.56	515.54	128.36	562.05	765.12
5-10 KM	40998.02	10469.7	8748.15	876.54	38.99	117.25	2151.56	2809.68	3412.83	4394.39	7978.93
0-10 KM	45537.15	12189.25	9176.4	907.28	38.99	124.91	2234.29	3372.7	3667.76	4962.67	8862.9

Figure 3.14: Landuse within the Buffer Zone Area



3.5 BIOLOGICAL ENVIRONMENT:

Study of the biological environment of any area comprises of well-planned ecological survey for the floristic and faunal composition of the areas through various scientifically planned techniques. Accordingly the ecological survey for the proposed quarry area including core and buffer zone were carried out to identify various species occurring in the area.

3.5.1 FLORA:

An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological conditions. The objective of the survey is as follows:

- ❖ Generate existing data from field observations of various terrestrial floristic occurrences.
- ❖ Collect secondary data from Government records as well as through discussion with Forest officials, knowledgeable public etc.,
- ❖ Compare the data with authentic past records to identify changes, if any.
- ❖ Identify the impact of project operations on the biological aspects.

To accomplish the above objectives, a general ecological survey covering an area of 10 km radius was conducted. The locations were identified for phyto-sociological aspects to assess the current status.

3.5.1.1 Sampling Methodology:

In order to provide representative ecological status for the study area, the 10-km radius buffer area has been divided into four quartiles for biodiversity sampling, i.e., NE (Q-1), NW (Q-2) SW (Q-3) and SE (Q-4). Each of the quartiles have been examined for representative flora on randomly sampled quadrats for trees (10x10 m), shrubs (5x5 m) and herbs (1x1 m) depending upon prevailing geographical conditions and bio-diversity aspects of study area.

Phyto-sociological Survey: Phyto-sociological parameters, viz., Abundance (i.e., density), average and minimum stems were measured to determine the distribution and ecological aspects of the species. Abundance is a measure of the density of distribution of an individual species within a given area. It is calculated by summed individuals of a species. Average species number is calculated for all quadrates; similarly, minimum number of individuals

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represented is recorded at quadrats level. A total of 10 quadrats were laid down in core area and a total of 20 quadrats were laid out in four quartiles (5 each) of buffer area.

Quadrats method for flora : Quadrats of 10 × 10m were laid down randomly within core and 10kms buffer area; each quadrat was laid to assess the trees (>5 cm GBH) and 5 × 5 m sub-quadrat nested within the quadrat for shrubs and two plot 1 × 1 m for herbs . The quadrats were laid at a minimum distance of a kilometer apart to maximize the sampling efforts and minimize the species homogeneity, such as small stream area, trees in agricultural bunds, tank bunds, farm forestry plantations, natural forest area, avenue plantations, house backyards, etc. In each sample quadrat, individuals belonging to tree, shrub and herb species were recorded separately, and have been identified on the field. The prevailing land use and habitat quality has been noted down for each location on the field.

Vegetation Analysis using index: Species diversity will be calculated by using Shannon and Wiener (1963) formula as follows:

$$H' = - \sum_{i=1}^R p_i \ln p_i$$

Whereas,

H' is Shannon index of general diversity,

P_i is often the proportion of individuals belonging to the ith species in the dataset of interest.

Evenness index was calculated as: $E = H'/H_{max}$,

Whereas $H_{max} = \log_2$ (number of species in the plot)

A.CORE ZONE:

The lease area is a non-forest, private land. Major part of lease area is barren fallow land with few bushes. The detailed list of plants found in the core zone are given in Table no – 3.23.

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Table 3.23: List of Floristic Species in the Core Zone

Sl.No	Species Name	Family	Common Name
Trees			
1	<i>Azadirachta indica</i>	<i>Meliaceae</i>	Neem
2	<i>Leucaena leucocephala</i>	<i>Fabaceae</i>	Babul tree
3	<i>Pongamia pinnata</i>	<i>Fabaceae</i>	Pongai
4	<i>Prosopis juliflora</i>	<i>Fabaceae</i>	Cimaikkaruvel
5	<i>Morinda pubescens</i>	<i>Rubiaceae</i>	Nuna
6	<i>Acacia nilotica</i>	<i>Fabaceae</i>	Karuvelan
Shrubs			
1	<i>Nerium indicum</i>	<i>Apocynaceae</i>	Arali
2	<i>Abutilon indicum</i>	<i>Meliaceae</i>	Thuthi
3	<i>Cassia auriculata</i>	<i>Fabaceae</i>	Aavarampoo
4	<i>Ricinus communis</i>	<i>Euphorbiaceae</i>	Amanakku
5	<i>Lantana camara</i>	<i>Verbenaceae</i>	Uni
6	<i>Calotropis gigantea</i>	<i>Apocynaceae</i>	Earukku
Herbs			
1	<i>Celome viscosa</i>	<i>Capparidaceae</i>	Nai kadugu
2	<i>Achyranthes aspera</i>	<i>Amaranthaceae</i>	Nayuruvi
3	<i>Anisomeles indica</i>	<i>Lamiaceae</i>	Marutti
4	<i>Leucas aspera</i>	<i>Lamiaceae</i>	Thumbai
5	<i>Sida acuta</i>	<i>Malvaceae</i>	Palambasi
6	<i>Acalypha indica</i>	<i>Amaranthaceae</i>	Kupaimeni keeri
7	<i>Solanum xanthocarpum</i>	<i>Solanaceae</i>	Kandangkattari
8	<i>Tridax procumbens</i>	<i>Asteraceae</i>	Thatha poo
Grasses			
1	<i>Chloris barbata</i>	<i>Poaceae</i>	Kodai pullu
2	<i>Cyperus rotundus</i>	<i>Cyperaceae</i>	Korai pullu

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B. PROJECT IMPACT ZONE (PIZ-300m BUFFER FROM CORE ZONE):

The PIZ is a dry area comprising mining area, plantation, barren fallow land with thorny bushes of *Prosopis juliflora*. A total of 19 tree species from 9 families were recorded in the PIZ. The diversity indexes was less due to dry area. From the above result it is clearly shows the PIZ is disturbed and has less diversity. Hence it is important to improve the plantation of the study area. The list of plants found in the PIZ are given in Table no – 3.24. The detailed list of plants found in the PIZ is given below.

Table 3.24: Phyto-Sociological Survey Of Trees In PIZ

Species	Family	Density	Frequency	BA	Rd	Rdo	Rf	IVI
<i>Acacia auriculiformis</i>	Fabaceae	6	4	0.515525	4.26	1.5864	5.633803	11.48
<i>Acacia nilotica</i>	Fabaceae	31	10	2.032404	21.99	6.2543	14.08451	42.32
<i>Albizia amara</i>	Fabaceae	2	2	0.288615	1.42	0.8882	2.816901	5.12
<i>Albizia lebbeck</i>	Fabaceae	2	2	0.169188	1.42	0.5206	2.816901	4.76
<i>Azadirachta indica</i>	Meliaceae	9	4	17.44666	6.38	53.6886	5.633803	65.71
<i>Borassus flabelliformis</i>	Arecaceae	8	4	1.172373	5.67	3.6077	5.633803	14.92
<i>Cassia fistula</i>	Fabaceae	2	1	0.22492	1.42	0.6921	1.408451	3.52
<i>Casuarina equisetifolia</i>	Casuarinaceae	3	2	0.322452	2.13	0.9923	2.816901	5.94
<i>Cocus nucifera</i>	Arecaceae	26	9	4.588615	18.44	14.1205	12.67606	45.24
<i>Ficus religiosa</i>	Moraceae	3	2	0.826911	2.13	2.5447	2.816901	7.49
<i>lannea coromandelica</i>	Anacardiaceae	3	3	0.863854	2.13	2.6583	4.225352	9.01
<i>Leucaena leucocephala</i>	Fabaceae	5	5	1.044984	3.55	3.2157	7.042254	13.80
<i>Mangifera indica</i>	Anacardiaceae	3	2	0.32707	2.13	1.0065	2.816901	5.95
<i>Mimusops elengi</i>	Sapotaceae	2	2	0.53543	1.42	1.6477	2.816901	5.88
<i>Morinda pubescens</i>	Rubiaceae	5	5	0.417118	3.55	1.2836	7.042254	11.87
<i>Pongamia pinnata</i>	Fabaceae	4	2	0.556449	2.84	1.7124	2.816901	7.37
<i>Prosopis juliflora</i>	Fabaceae	20	8	0.23988	14.18	0.7382	11.26761	26.19
<i>Samanea saman</i>	Fabaceae	4	1	0.53742	2.84	1.6538	1.408451	5.90
<i>Sygygium cumuni</i>	Myrtaceae	3	3	0.386146	2.13	1.1883	4.225352	7.54

Rd- Relative Density, Rdo- Relative dominance, Rf – Relative Frequency, IVI – Importance Value Index

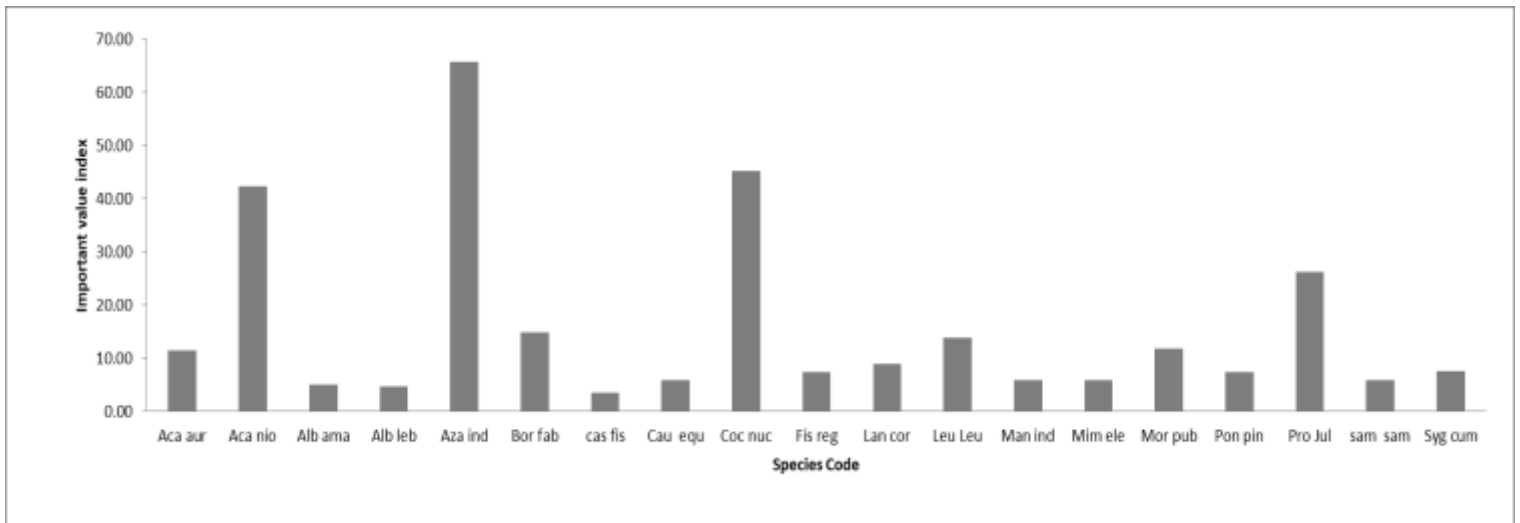


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Table 3.25: Species Diversity index of trees in PIZ

A	Lower	Upper
Taxa	19	19
Individuals	141	141
Dominance	0.1125	0.08546
Simpson	0.8875	0.8605
Shannon	2.548	2.387
Evenness	0.673	0.673
Fisher alpha	5.914	4.229
Berger Parker	0.2199	0.2199

Figure 3.15: Species Important Value Index For Trees in PIZ



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C.BUFFER ZONE:

Buffer zone of the study area consists of various land use like scrub forests like Reserve Forest- 500m- N, Kachaikatti RF – 1.4km – NE, Sembatti RF - 8.9km – E, Waguttumalai RF - 3.4km – SE, Sirumalai RF – 6.2km – NE are located in the study area. And in the north, east, seasonal agricultural land along the Vaigai river in the south west, intermittent barren land, habitation.

The Dominated species in the plains are Cocus nucifera, Borassus flabellifer, Acacia nilotica, Albizia lebbeck, Acacia leucophloea, Acacia auriculiformis, Prosopis juliflora & Azadirachta indica, etc. In the RF major species are Casearia zeylanica, Citrus medica, Diospyros ovalifolia, Madhuca indica etc are recorded. The detailed list of plants found in the Buffer zone is given in Table no – 3.26.

Table 3.26: List of Floristic Species in the Buffer Zone

Sl.No	Species	Family	Local name
Trees			
1	Azadirachta indica	Meliaceae	Vembu
2	Delonix elata	Fabaceae	Perungondrai
3	Casuarina equisetifolia	Casuarinaceae	Savukku maram
4	Mangifera indica	Anacardiaceae	Manga
5	Morinda pubescens	Rubiaceae	Manjanathi
6	Musa paradisiaca	Musaceae	Valzhlai
7	Pongamia pinnata	Fabaceae	Pungai
8	Samanea saman	Fabaceae	Amaivagai
9	Terminalia arjuna	Combretaceae	Marudha Maram
10	Leucaena leucocephala	Fabaceae	Subabul
11	Citrus limon	Rutaceae	Lemon
12	Delonix regia	Fabaceae	Gulmohar
13	Madhuca longifolia	Sapotaceae	Iluppai
14	Ficus benghalensis	Moraceae	Aalamaram
15	Mimusops elengi	Sapotaceae	Magizhamboo
16	Pithecellobium dulce	Fabaceae	Kudukapuli
17	Sygygium cumuni	Myrtaceae	Naval
18	Prosopis juliflora	Fabaceae	Seemai karuvel
19	Tamarindus indica	Fabaceae	Puli
20	Acacia auriculiformis	Fabaceae	Pencile tree
21	Albizia lebbeck	Fabaceae	Vagai

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22	Lannea coromandelica	Anacardiaceae	Othiya maram
23	Acacia leucophloea	Fabaceae	Valvelam
24	Anacardium occidentale	Anacardiaceae	Munthiri
25	Ficus religiosa	Moraceae	Poarasamaram
26	Polyalthia longifolia	Annonaceae	Nietilingam
27	Tectona grandis	Verbenaceae	Tekku
28	Ziziphus mauritiana	Rhamnaceae	Elanthai maram
29	Acacia nilotica	Fabaceae	Karuvelan
30	Thespesia populnea	Malvaceae	Puvarasu
31	Melia azedarach L	Meliaceae	Malai vembu
32	Bobax ceiba	Malvaceae	Ilavu
33	Leucaena leucocephala	Fabaceae	Subabul
34	Albizia amara	Fabaceae	Wunja
35	Peltophorum pterocarpum	Fabaceae	Kilukiluppai
36	Annona squamosal	Annonaceae	Sitapalam
37	Psidium guava	Myrtaceae	Koyya
38	Gmelina arborea	Lamiaceae	Kumalaamaram
39	Vachellia nilotica	Fabaceae	Karuvelam
40	Artocarpus heterophyllus	Moraceae	Palamaram
41	Phyllanthus emblica	Phyllanthaceae	Nelli
42	Carica papaya	Caricaceae	Pappali
43	Moringa oleifera	Moringaceae	Murungai
44	Cassia siamea	Fabaceae	ManjalKonrai
45	Manilkara zapota	Sapotaceae	Sappota
46	Millettia pinnata	Fabaceae	Pongam
47	Borassus flabelliformis	Arecaceae	Panna-maram
48	Morinda tinctoria	Rubiaceae	Nuna
49	Aegle marmelos	Rutaceae	Vilvam
50	Bauhinia purpurea	Caesalpiniaceae	Mantharai
51	Cocus nucifera	Arecaceae	Tennai
52	Cassia fistula	Fabaceae	Konrai
53	calophyllum inophyllum	Calophyllaceae	Punnai Maram
Shrubs			
1	Abutilon indicum	Meliaceae	Thuthi
2	Hibiscus rosa-sinensis	Malvaceae	Semparuthi
3	Ziziphus jujuba	Rhamnaceae	Elanthai
4	Lantana camara	Verbenaceae	Unni chedi
5	Cassia auriculata	Fabaceae	Aavarampoo

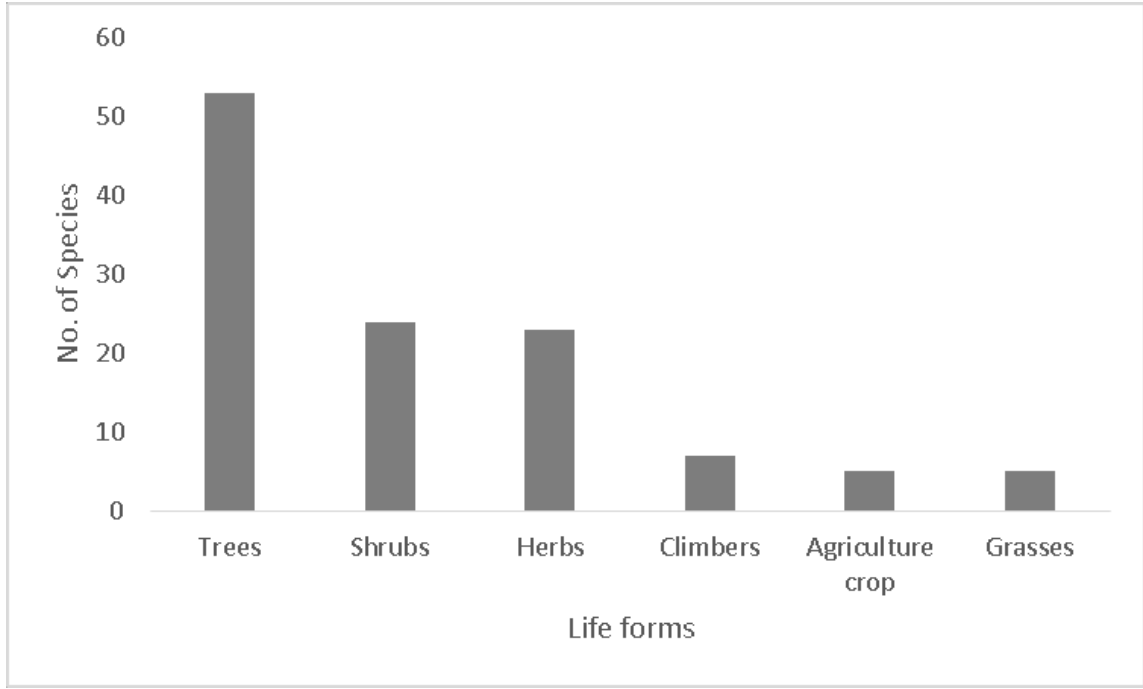
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6	Aloe vera	Asphodelaceae	Chotthu kathalai
7	Vitex negundo	Verbinaceae	Vanili
8	Jatropagossypifolia	Euphorbiaceae	Kaatamanaku
9	Boerhaavia diffusa	Nyctaginaceae	Kagithapoo
10	Ipomoea carnea	Convolvulaceae	Pink morning glory
11	Tecoma stans	Bignoniaceae	Yellow trumpetbush
12	Calotropis gigantea	Apocynaceae	Earukku
13	Lawsonia inermis	Lythraceae	Maruthani
14	Solanum torvum	Solanaceae	Sundaika
15	Mimosa pudica	Mimosaceae	Thottalchinungi
16	Senna auriculata	Fabaceae	Avarai
17	Nerium indicum	Apocynaceae	Arali
18	Ixora casei	Rubiaceae	Idlipoo
19	Sida cordifolia	Malvaceae	Sida plant
20	Ricinus communis	Euphorbiaceae	Amanakku
21	Justicia adhatoda	Acanthaceae	Adathoda
22	Ixora parviflora	Rubiaceae	Korimipala
23	Ixora coccinea	Rubiaceae	Manmadhabanam
24	Agave Americana	Agavaceae	
Herbs			
1	Leucas aspera	Lamiaceae	Thumbai
2	Sida rhombifolia	Malvaceae	Kurundotti
3	Parthenium hysterophorus	Asteraceae	Parthenium
4	Aloe vera	Asphodelaceae	Katrashai
5	Euphorbia hirta	Euphorbiaceae	Amman pacharisi
6	Phyllanthus niruri	Phyllanthaceae	Keelzhaneeli
7	Acanthospermum hispidum	Asteraceae	Gokul kanta
8	Sida acuta	Malvaceae	Palambasi
9	Solanumnigrum	Solanaceae	Manathakkali
10	Achyranthes aspera	Amaranthaceae	Nayuruvi
11	Tridax procumbens	Asteraceae	Thatha poo
12	Anisomeles indica	Lamiaceae	marutti
13	Celome viscosa	Capparidaceae	Nai kadugu
14	Anisomeles malabarica	Lamiaceae	Peyimarutti
15	Tephrosia purpurea	Fabaceae	Kavali
16	Argemone mexicana	Papaveraceae	Mexican poppy
17	Ocimum tenuiflorum	Lamiaceae	Thulasi
18	Catharanthus roseus	Apocynaceae	Nithiyakalyani

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19	Solanum xanthocarpum	Solanaceae	Kandangkattari
20	Acalypha indica	Euphorbiaceae	Kuppamani
21	Woodfordia fruticosa	Lythraceae	Gokul kanta
22	Hemidesmus indicus	Apocynaceae	Kurundotti
23	Clerodendrum viscosum	Lamiaceae	Kavali
Climbers			
1	Clitoria ternatea	Fabaceae	Sengu
2	Clitoria ternatea	Fabaceae	Sangu poo
3	Cissus quadrangularis	Vitaceae	Pirandai
4	Coccinia grandis	Cucurbitaceae	Kovai
5	Abrus precatorius	Fabaceae	Kundumani
6	Asparagus racemosus	Asparagaceae	Tannir-vittan
7	Citrullus colocynthis	Cucurbitaceae	Peikkumatti
Agriculture Crop			
1	Cocos nucifera	Arecaceae	Tennai
2	Gossypium hirsutum	Malvaceae	Paruththi
3	Sesbania grandiflora	Fabaceae	Agati
4	Solanum melongena	Solanaceae	Kaththarii
5	Musa paradisiaca	Musaceae	Valzhai
Grasses			
1	Cyperus rotundus	Cyperaceae	korai pullu
2	Chloris barbata	Poaceae	Kodai pullu
3	Cynodon dactylon	Poaceae	Arugampillu
4	Dendrocalamus strictus	Poaceae	Saliabaunsa
5	Cymbopogon caesius	Poaceae	Kachi grass
Major Species recorded in the Reserve forest of the study area			
1	<i>Antidesma alexiteria</i> L.	Meliaceae	-
2	<i>Citrus medica</i> L.	Rutaceae	-
3	<i>Cordia obliqua</i>	Cordiaceae	-
4	<i>Diospyros ferrea</i>	Ebenaceae	-
5	<i>Diospyros ovalifolia</i>	Ebenaceae	-
6	<i>Madhuca indica</i>	Sapotaceae	-
7	<i>Olea paniculata</i>	Oleaceae	-
8	<i>Phyllanthus indofischeri</i>	Euphorbiaceae	-
9	<i>Canthium dicoccum</i>	Rubiaceae	-
10	<i>Semecarpus anacardium</i>	Anacardiaceae	-
11	<i>Schrebera swietenoides</i>	Oleaceae	-

Figure 3.16: Flora species in the Buffer Zone



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3.5.2 FAUNA:

Methodology: Both direct and indirect observation methods were used to survey the fauna. Point Survey Method was used to study the Bird diversity. Besides, discussion with local villagers Collection secondary data from Government records, published reports as well as through discussion with Forest officials, knowledgeable public were used for the study.

Observation: There is no Wild Life Sanctuary or National Park within the study area of 10 km. Domesticated animals are commonly found. No wild mammalian species was directly sighted during the field survey. There is no Schedule I animals in the buffer zone area. The list of fauna within the study area is given in Table No – 3.27.

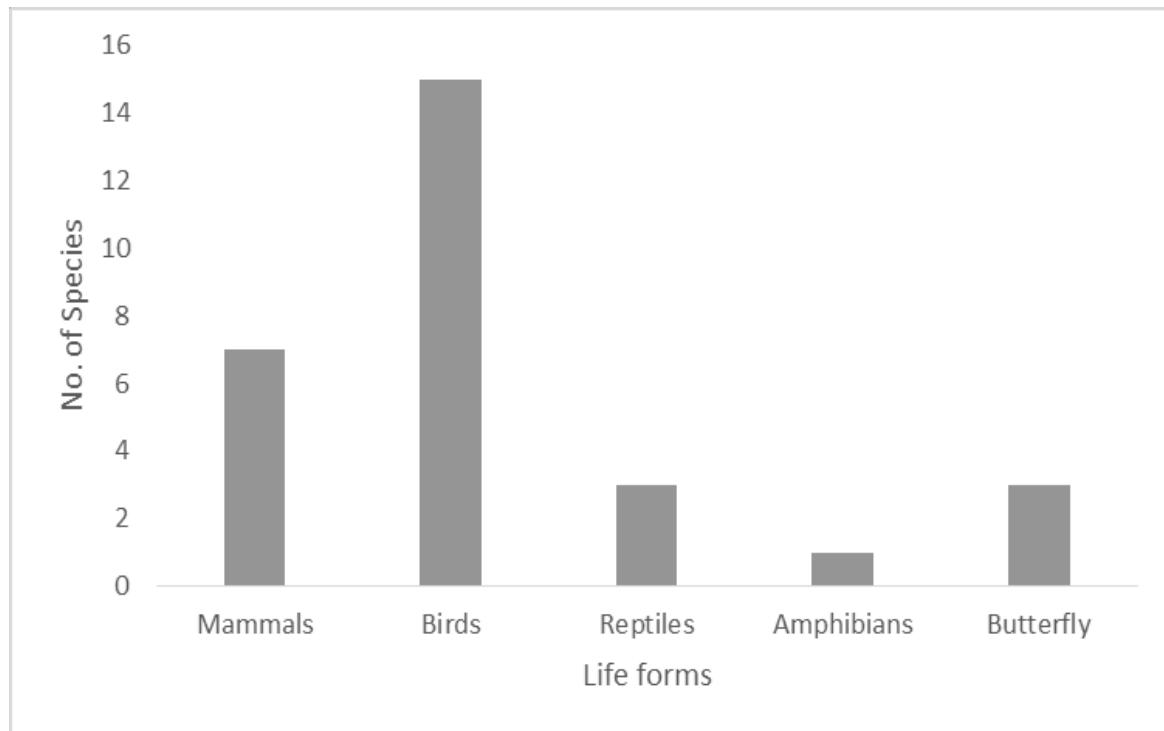
Table 3.27: List of Fauna in the Buffer Zone

S.No	Common Name	Scientific name	IWPA, Schedule
Mammals			
1	Indian Grey Mongoose	Herpestes edwardsii	II
2	Indian Gaur	Bos gaurus	II
3	Wild boar	Sus scrofa	III
4	Common Indian Hare	Lepus ruficaudatus	IV
5	Indian Bush Rat	Golunda ellioti	IV
6	Spotted deer	Axis axis	II
7	Indian Palm squirrel	Funambus palmarum	IV
Birds			
1	Spotted Dove	Streptopelia chinensis	IV
2	Common Kingfisher	Alcedo atthis	IV
3	Common Myna	Acridotheres tristis	IV
4	Rose-ringed Parakeet	Psittacula krameri	IV
5	House Sparrow	Passer domesticus	IV
6	Black Drongo	Dicrurus macrocercus	IV
7	Common Crow	Corvus splendens	V
8	Red-vented Bulbul	Pycnonotus cafer	IV
9	Indian Cuckoo	Cuculus micropterus	IV
10	Little Cormorant	Phalacrocorax niger	IV
11	Purple-rumped Sunbird	Nectarinia zeylonica	IV
12	Little Egret	Egretta garzetta	IV
13	Common Quail	Coturnix coturnix	IV
14	Cattle Egret	Bubulcus ibis	IV
15	Common Babbler	Turdoides caudatus	IV
Reptiles			
1	Garden Lizard	Calotes versicolor	IV
2	Rat Snake	Ptyas mucosa	II

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S.No	Common Name	Scientific name	IWPA, Schedule
3	Common Indian krait	Bungarus caeruleus	II
Amphibians			
1	Common Indian toad	Bufo melanostictus	IV
Butterfly			
1	Small grass yellow	Eurema brigitta	IV
2	Lime butterfly	Papilio demoleus	IV
3	Common crow	Euploea core	IV

Figure 3.17: Fauna Diversity in the Buffer Zone



3.6 HYDROGEOLOGICAL STUDY:

This section delves into the study of the hydrogeological scenario of the study area to evaluate the impact of mining activities on the nearby areas. The study area is located in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu is considered to understand the nature of the general hydrogeological conditions of the area.

3.6.1 PHYSIOGRAPHY AND DRAINAGE:

Physiography: The area applied for mining lease is a gentle plain terrain and dry lands without any vegetation. The rocks in this area belonging to ARCHEAN group of rocks. Below the gravel formation a hard Rough stone Charnockite is noticed. The rocks are Phaneric to medium grained nature. And in these rocks there are mineral constituents of BLUE QUARTS, MICRO CLINE FELDSPAR, HYPERSTHENE and flakes of BIOTITE MICA. The rocks are striking towards North West – South east direction dipping 80° Vertical towards South east direction.

Drainage: There is an odai channel on the eastern & western side of the lease area for which safety distance of 10m has been left. The drainage map prepared for 1km, 5 km &10 km to know the drainage pattern in the study area from the survey of India topographic maps shows the presence of few streams running in a dendritic pattern.

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Figure 3.18: 1 km Drainage Map

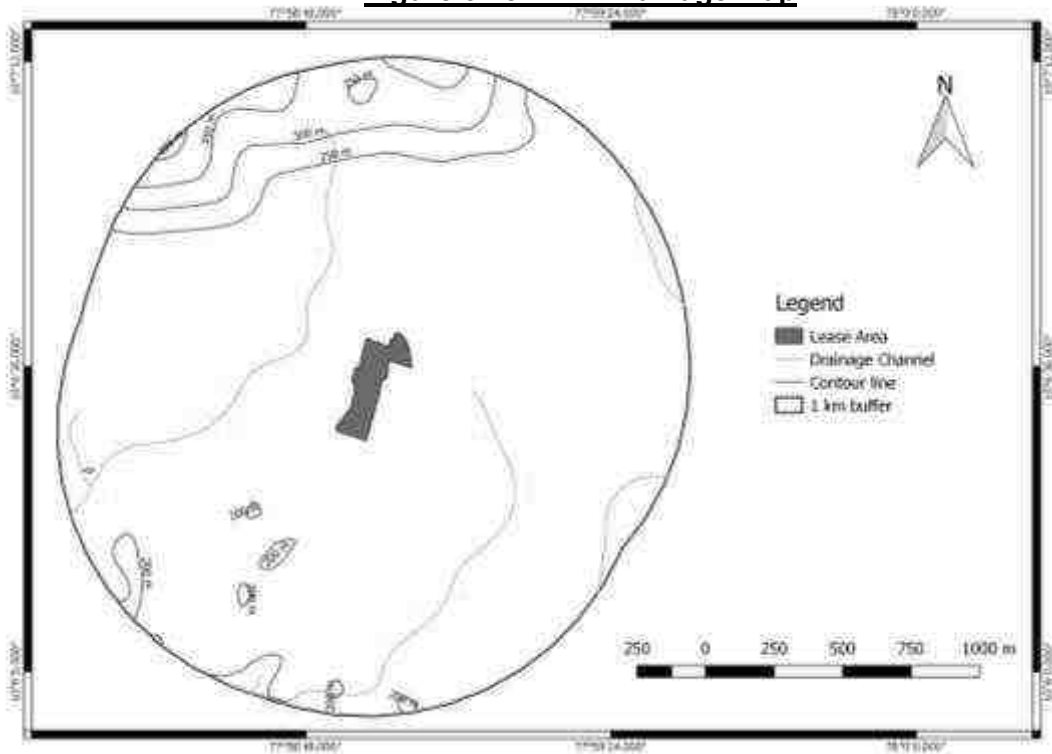
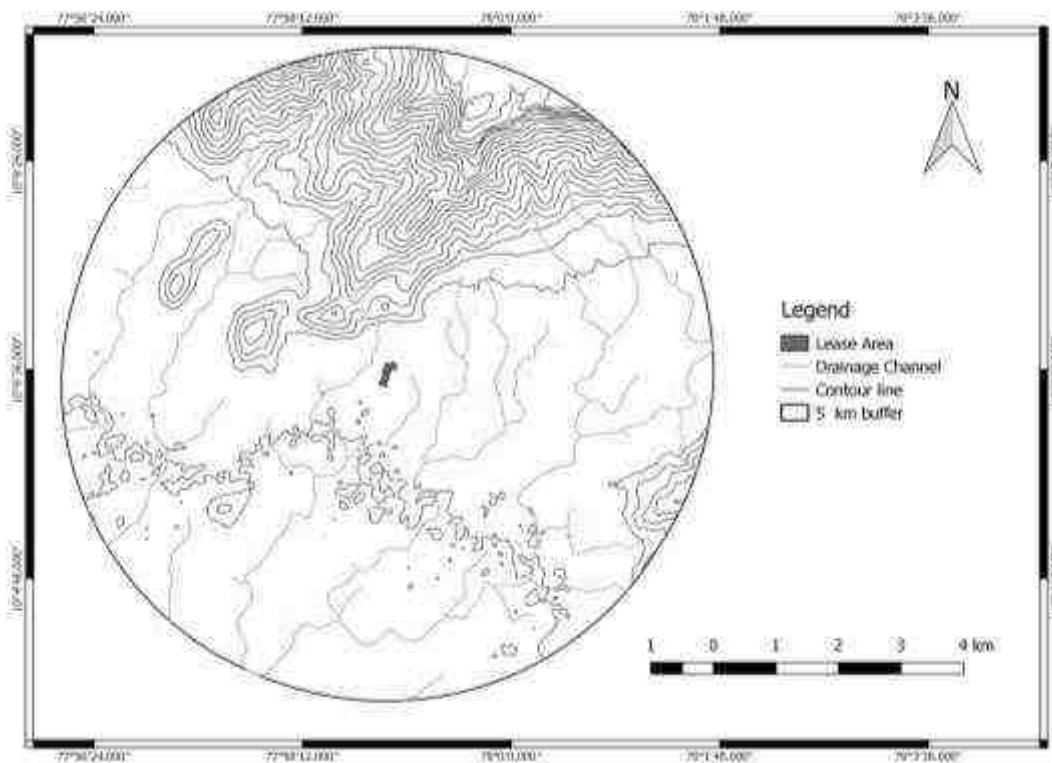


Figure 3.19: 5 km Drainage Map



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Figure 3.20: 5 km Drainage Map

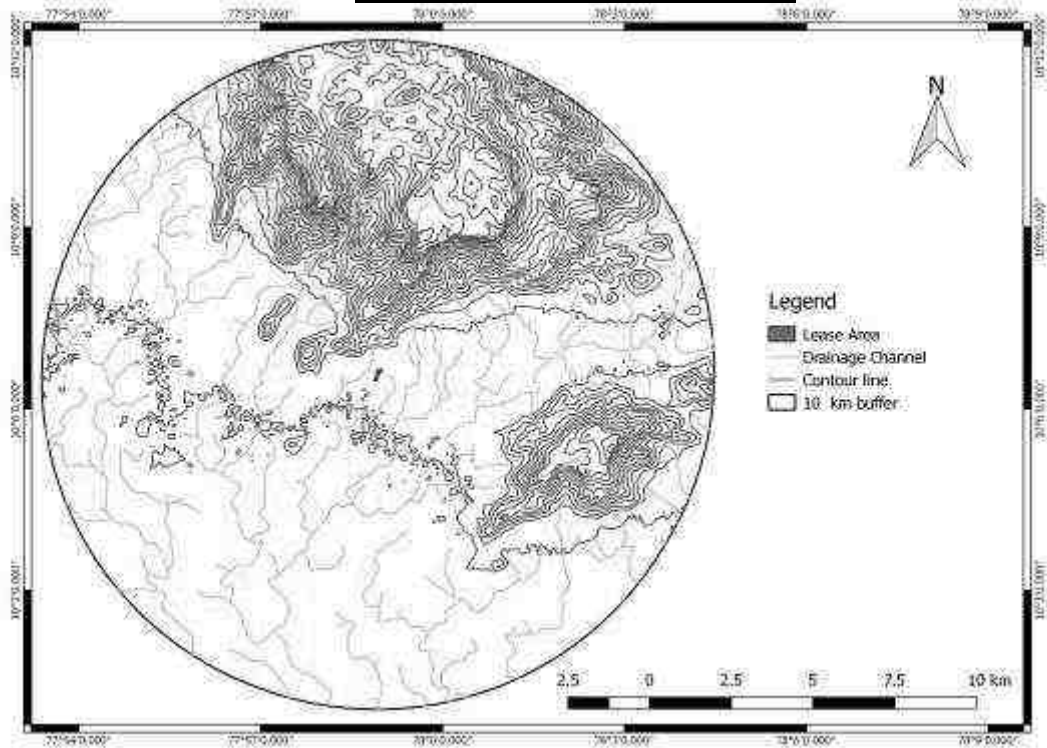
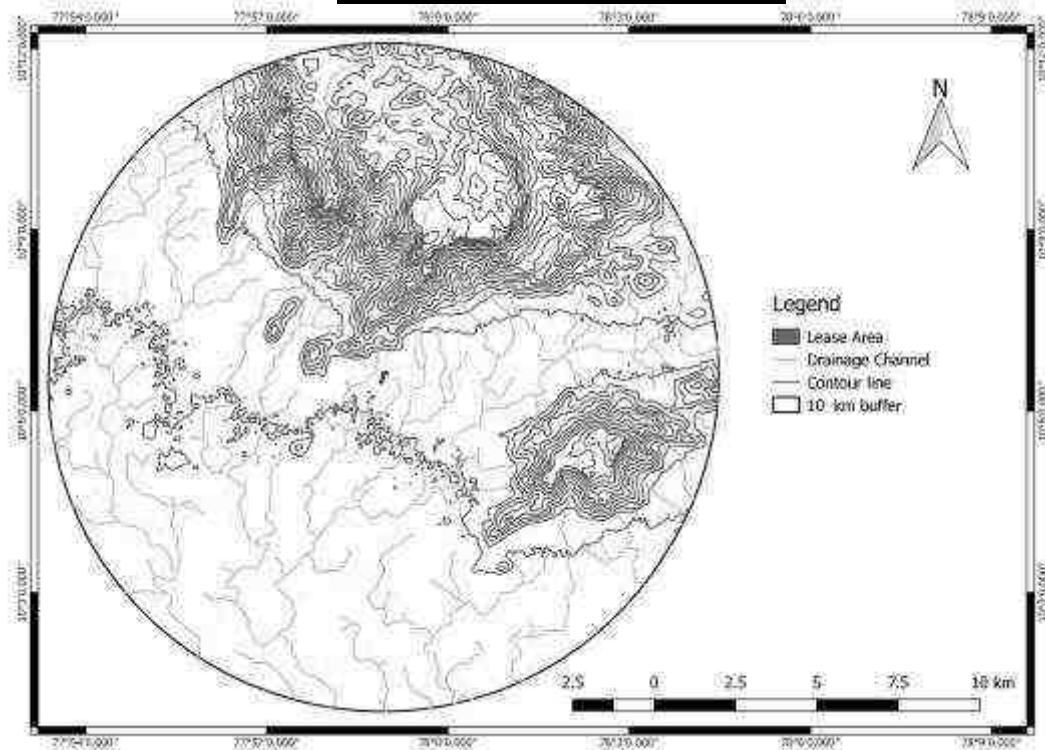


Figure 3.20: 10km Drainage Map

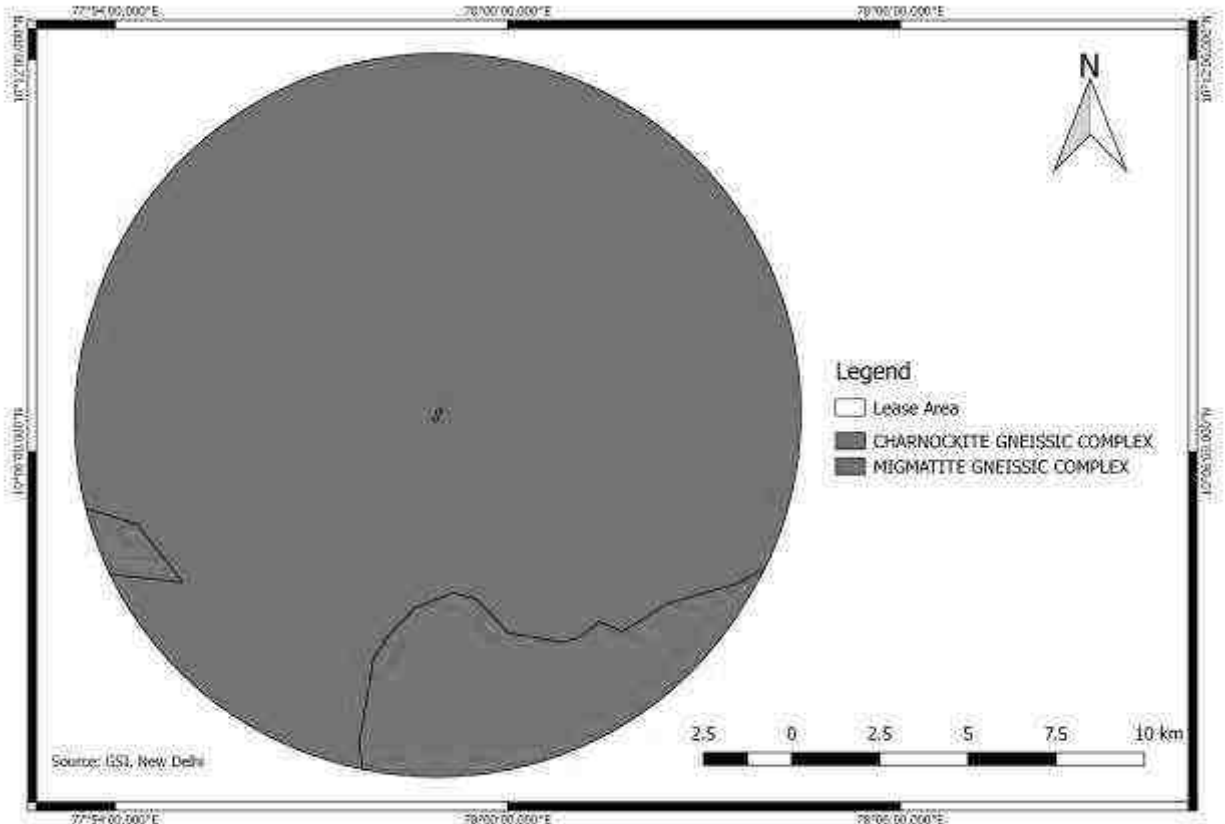


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3.6.2 GEOLOGY AND GEOMORPHOLOGY

Geology: The type of rock formation in the buffered zone is composed majorly of Charnockite Gneissic complex. The lease area falls under Charnockite Gneissic complex category.

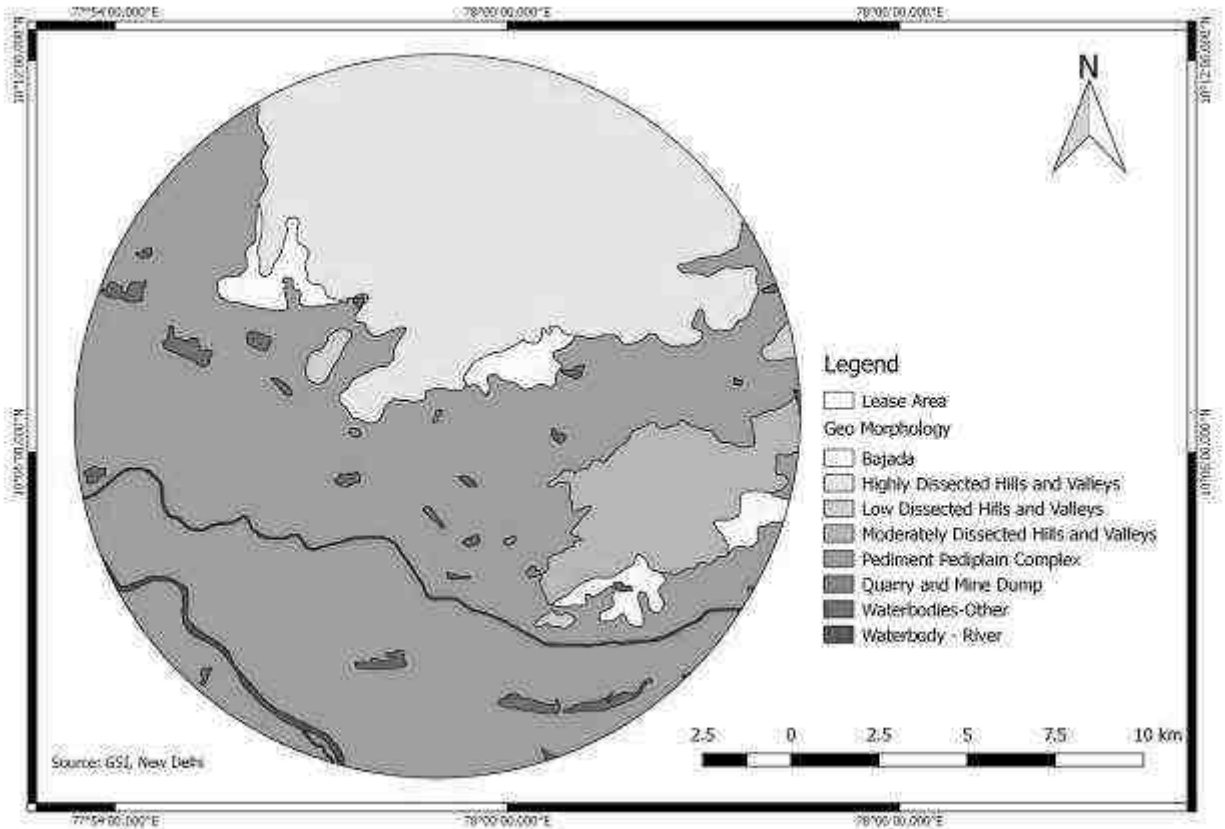
Figure 3.21: Geology Map



Geomorphology: The geomorphology map of the study derived from the satellite imagery using remote sensing and GIS technique. Predominantly the buffer zone is dominated by Pediment Pediplain complex, and it is the same category that the lease area also falls under.

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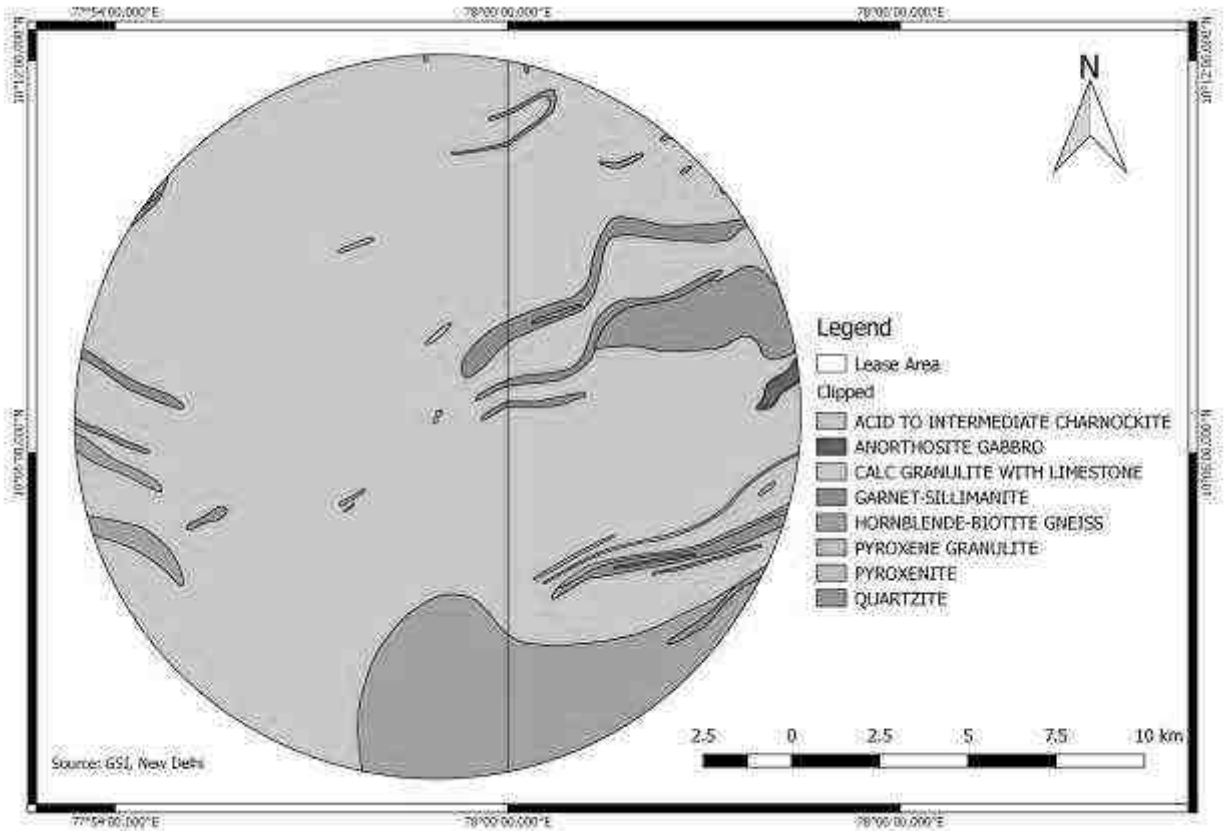
Figure 3.21: Geomorphology Map



Lithology: The study area is mainly dominated by Calc Granulite with limestone. The lithology map has been provided below.

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Figure 3.22: Lithology Map

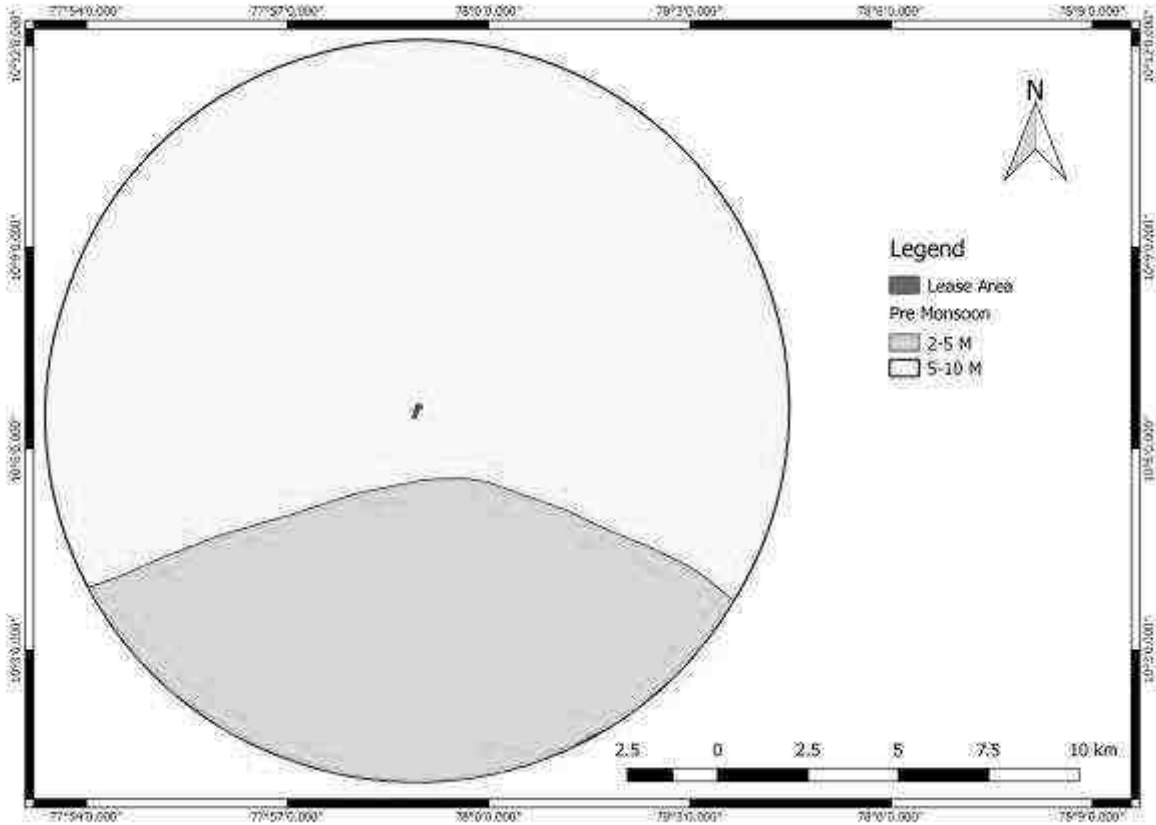


Soil: The study area is characterized by Vertisols, Alfisols and Inceptisol. The project area is dominated with Inceptisol type of soil.

The premonsoon and post monsoon water levels are depicted in Figure No.3.25, and 3.26 and they indicate that the depth to water level in project area ranges between 2.0 to 10.0 m bgl during the pre-monsoon season(April) and 2.0 to 10.0 m bgl during the post monsoon season (November).

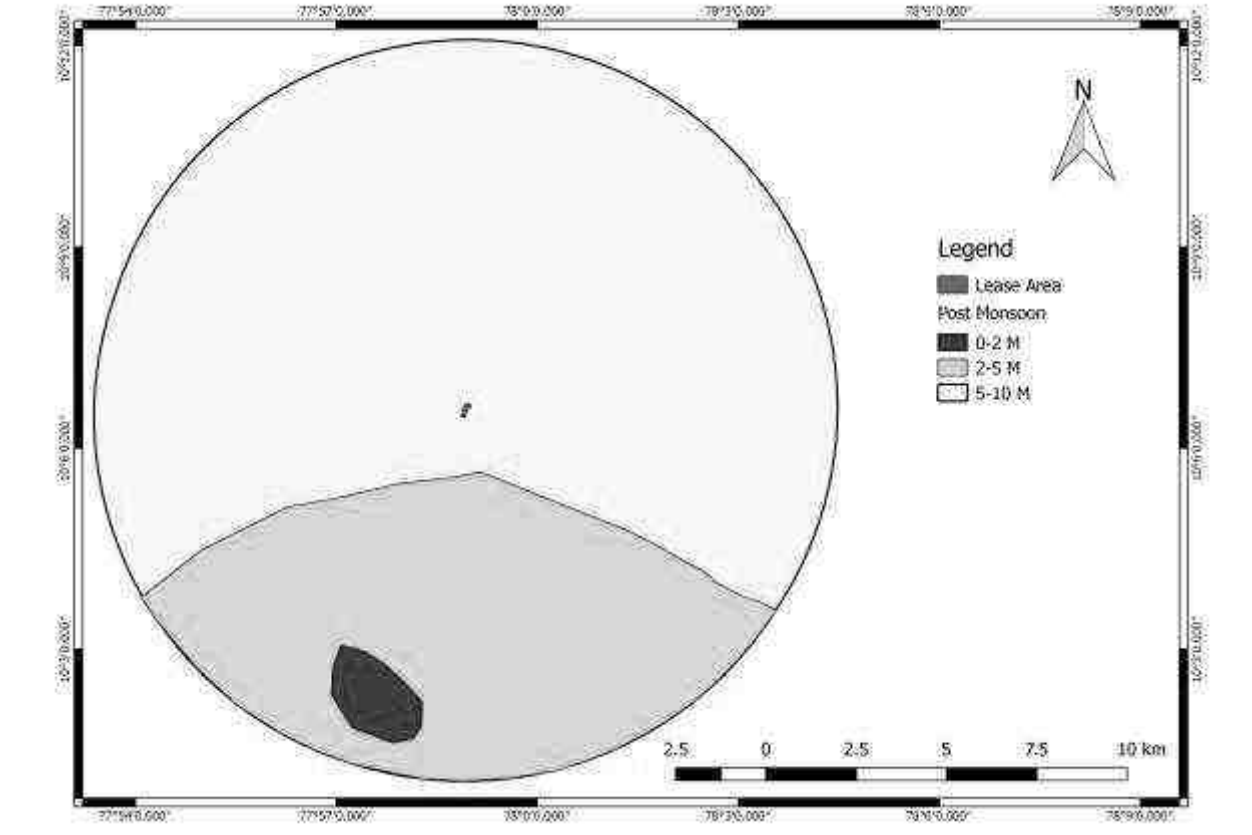
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Figure 3.23: Pre-Monsoon Water Level



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Figure 3.24: Post Monsoon Water Level



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Field investigation:

Study of the area shows that the sub-surface formations reveal low recharge potentials. Subsequently hard and massive formations of rock are found.

In the study area, the shallow aquifer is developed through dug wells and deeper aquifer through tube wells. The study has revealed that potential fractures are encountered at deeper levels. The water in the wells are available mainly after post monsoon and it reduces during summer necessitating only dry crops cultivation. Bore wells are as deep as 500ft also and it reflects that the yield is only better at deeper water levels.

Based on the available information and the geophysical investigations it is concluded that the project area is considered to poor groundwater potential up to 40m. Besides, the mining area consists of hard compact rock, no major water seepage within the mine is expected. There is no water seepage noticed in to the already quarried pits situated nearby the proposed quarry area. Hence, the quarrying rough stone up to the proposed depth may not have any adverse impact in the area over ground water conditions.

Rain water collected in the tanks in the region acts as a good source of water during post monsoon. In order to increase the recharge, tanks, and percolation ponds may be provided with the recharge wells/recharge shafts penetrating this impervious layer to make it more effective in recharging the aquifer.



CHAPTER 4

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.1 GENERAL

In this project Mechanized Open Cast mining will be carried out to quarry out Rough Stone & Gravel. The identified impacts due to this mine during mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc., and the details of the same are elaborated in this chapter.

4.2 AIR ENVIRONMENT:

4.2.1 IMPACTS DUE TO PROJECT OPERATION:

The existing ambient air quality in the area has been described in Chapter-III. The proposed mining and allied operations may cause deterioration of air quality due to pollution arising from the project operation if prompt care is not taken. The principal sources of air pollution in general due to mining and allied activities will be:

- ❖ Excavation of material.
- ❖ Movement of HEMM such as Excavators, tippers etc.
- ❖ Loading and unloading operation
- ❖ Transportation

Besides, Gas emission will occur as a result of operation of diesel driven mining equipment, compressors, transporting vehicles, etc.

Particulate matter smaller than 10 microns, referred to as PM₁₀, can settle in the bronchi and lungs and cause health problems like Bronchitis, Emphysema, Bronchial Asthma, Irritation of mucus membranes of eyes, etc. Particles smaller than 2.5 micrometers (PM_{2.5}), tend to penetrate into the lungs and very small particles (<100 nanometers) may pass through the lungs to affect other organs.

Besides the above mentioned fugitive dust emissions, atmospheric pollution can occur as a result of emission of SO₂, NO_x, CO etc., from diesel driven mining equipment, generator sets, etc. Larger suspended particles are generally filtered in the nose and throat and do not cause problems. Higher concentration of SO₂, NO_x, CO may cause some health effect on the human beings



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exposed to it. In case of this mine, the following measures will be adopted to control impact on the air quality due to mining operations in the lease area:

Table 4.1: Impact and Mitigation Measures – Air Environment

S.No	Activity	Consequence	Mitigation Measures
1	Drilling	Dust Emanation	Usage of Drill bits in good condition
			Covering of drill holes with wet cloth
			Usage of sharp drill bits for drilling of holes.
			Provision of dust filters / mask to workers working at highly dust prone and affected areas.
2	Blasting	Instantaneous dust emanation	Well-designed blasting parameter, effective stemming to achieve optimum breakage occurs without generating fines.
			Use of appropriate explosives for blasting and avoiding overcharging of blast holes.
			Avoiding blasting during high wind periods where the fine dust is carried out away easily affecting the ambient air quality.
			Use of controlled blasting techniques with Nonel to keep the dust generation, noise as well as vibration level within the prescribed limits.
3	Excavation and Loading	Dust emanation, Gaseous Emission	HEMM will be operated as per the manufacturer's guidelines
			Enclosures for operator cabin.
			Imparting sufficient training to operators on safety and environmental parameters.
			Proper maintenance of hauling equipments.
4	Transportation	Dust emanation, Gaseous Emission	Avoiding overloading of dumpers.
			Regular wetting of transport road using mobile water tanker.
			Proper maintenance of haul road and other roads
			Setting up of tyre wash facility in the transport road.
			Avoiding overloading of tippers
			Covering of loaded tippers with tarpaulins during transportation
5	Others	Dust emanation, Gaseous Emission	Vehicular emissions will be controlled through regular and proper preventive maintenance schedules and emissions tests are done with diesel smoke meter equipment to ensure emission values.
			Development of greenbelt / barriers around mine in the safety zone and carrying out plantation within the lease area.
			Green netting will be carried out around the lease periphery on all sides.



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Due to adoption of all these measures, no major impact on air quality is envisaged due to this proposed opencast mining operation.

Considering that the quantum of production is less, only 1 excavator, 2 tippers will be engaged. These equipment's will be properly and regularly maintained. Besides, as mentioned earlier, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned wherein 2200 number of plants will be planted in and around the lease area.

The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model developed by Lakes Environmental Software which is based on steady state Gaussian plume dispersion. Details of the modeling study / estimation including the modeling technique and post project air quality values are elaborated in the following paras.

4.2.2 AIR QUALITY IMPACT PREDICTION:

The model simulations are done for the air pollutant arising from the mining operations, namely, PM₁₀, PM_{2.5}. **Ground Level Concentration (GLC)** have been computed using hourly meteorological data.

Table 4.2: Emission Sources

ACTIVITY	SOURCE TYPE
A. Mining operations	Open pit
B. Transportation	Line

4.2.2.1 Emission Factors

Quantification of particulate emissions has been carried out by the emission factor technique. Emission factor is a statistical average of the rate at which a pollutant is released during an activity. This factor when multiplied by the level of that activity in a given situation will give the overall effect. Fugitive emissions have been predicted by using standard equations given and suggested by AP-42, USEPA(1998), Coal S&T Project and for mining & allied activities and other factors. The modeling is done for the peak production to know the worst case scenario. The details of the emission factors used for the same is provided below:



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Table 4.3: Emission Factors

S.No	Activity	PM10	PM2.5	Unit
1	Ore Loading	1.5×10^{-3}	2.1×10^{-4}	Kg/T
2	OB Loading	1.4×10^{-4}	1.5×10^{-5}	Kg/T
3	Hauling inside lease area	0.19	0.019	g/VKT
4	Drilling	0.1	0.04	Kg/hole

4.2.2.2 Emission Rates:

Based on the emission factors, after adopting necessary control measures like dust suppression, Proper maintenance of HEMM, using better quality diesel, using latest equipment, proper maintenance of roads, etc. the expected emission rate due to various operations in this project is calculated and is given below:

Table 4.4: Emission Rate

ACTIVITIES/POLLUTANTS	PM ₁₀ (g/sec)	PM _{2.5} (g/sec)
Ore Loading	0.03	0.00
Drilling	0.12	0.05
Hauling inside lease area	0.12	0.02
Total	0.27	0.07

A. Emission Source Coordinates: The center of mine was assumed (0, 0) in the mathematical modeling.

B. Meteorological Conditions Used In Predictions: The hourly meteorological data has been generated for the monitoring period and the same has been used in the predictions.

4.2.2.3 Results and Discussions

Table 4.5: Peak Incremental Concentration

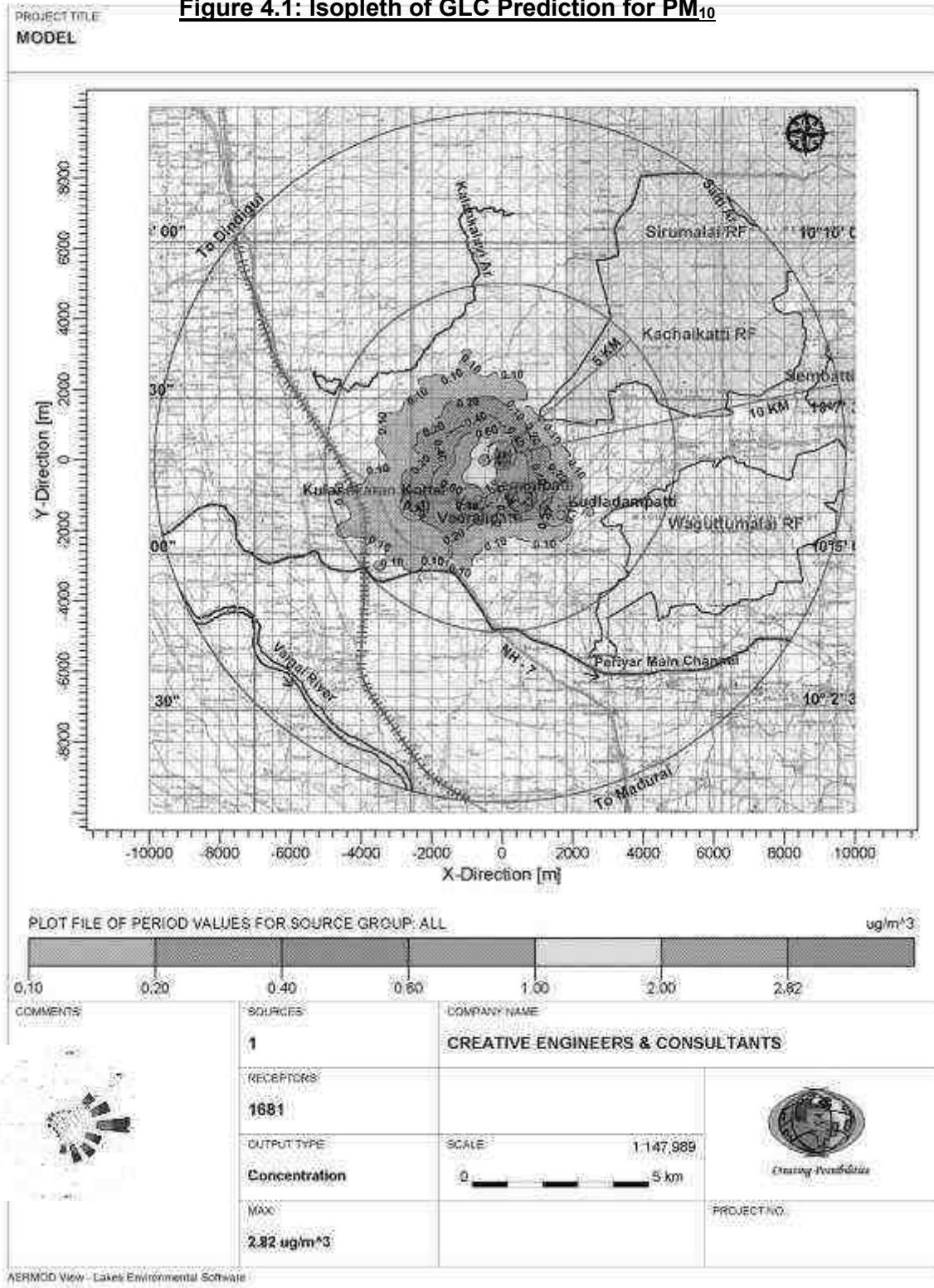
S.No	Parameters	Peak incremental concentration $\mu\text{g}/\text{m}^3$
1	PM ₁₀	2.82
2	PM _{2.5}	1.71

It is observed that the peak incremental concentration for PM₁₀, PM_{2.5} occurring very near the source. At away from the source the values are getting reduced due to dispersion effects. The Isopleths of PM₁₀, PM_{2.5} concentrations with control measures scenario have also been drawn and these are given in **Figure No.4.1 and 4.2**. The incremental and predicted concentrations at the locations of ambient air quality have been discussed in the following section.



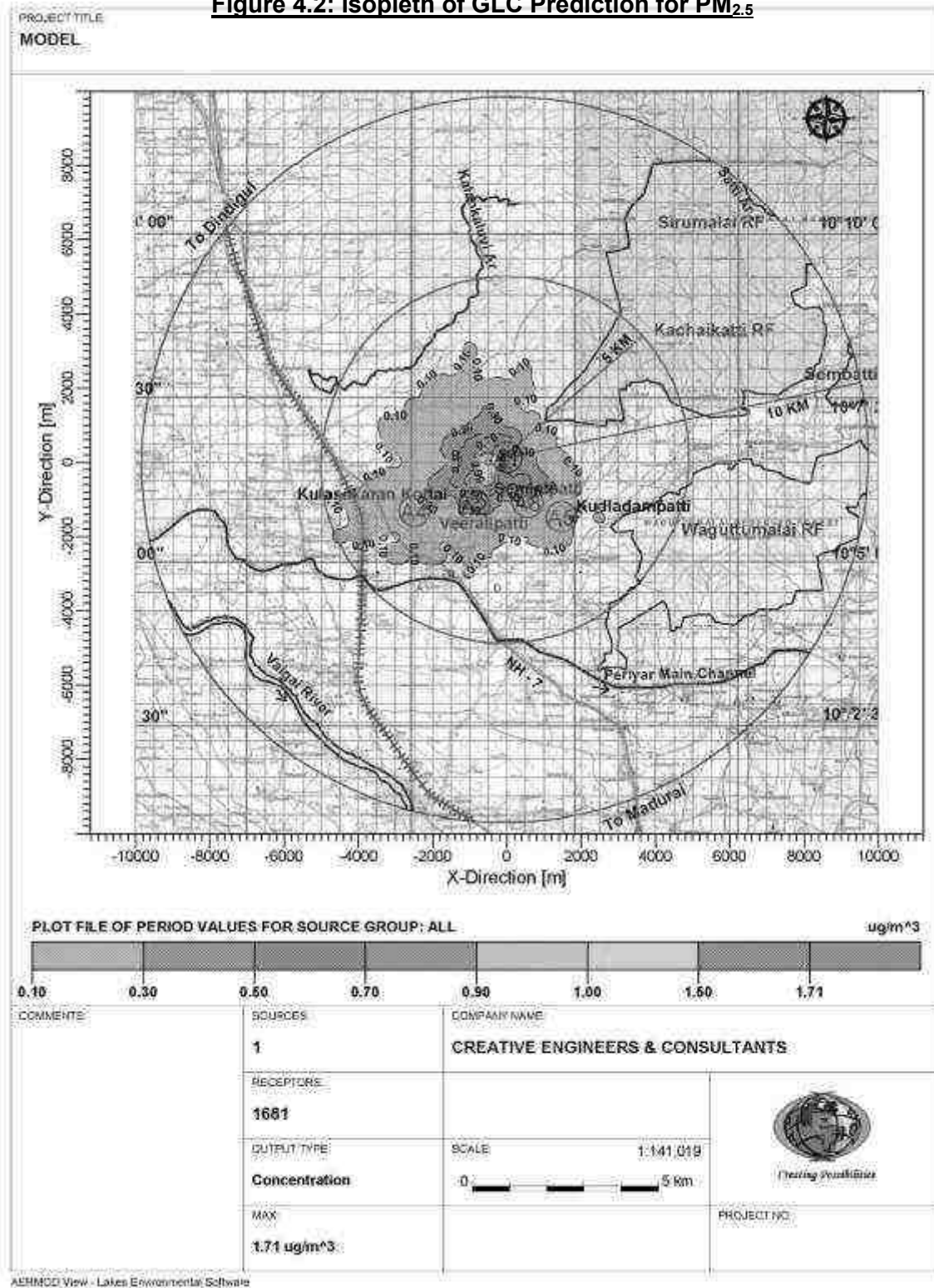
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Figure 4.1: Isopleth of GLC Prediction for PM₁₀



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Figure 4.2: Isopleth of GLC Prediction for PM_{2.5}



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Predicted Ambient Air Quality:

The post project Concentrations of PM₁₀, PM_{2.5}, (GLC) (base line + incremental) after adopting necessary control measures is given in Table No - 4.6 to 4.7.

Table 4.6: Concentrations Of PM₁₀ after Project Implementation

Values in $\mu\text{g}/\text{m}^3$

S. No	Location	Background Concentration	Predicted Incremental Concentration	Post Project Concentration	Statutory Limits
1	Near Mine Lease Area	50.4	2.8	53.2	-
2	Veerali Patti Village	56.6	<1.0	57.6	100
3	Semini Patti Village	62.2	<1.0	63.2	
4	Kulasekaran Kottai Village	64.3	<1.0	65.3	
5	Kudladampatti Village	58.2	<1.0	59.2	

Table 4.7: Concentrations Of PM_{2.5} after Project Implementation

Values in $\mu\text{g}/\text{m}^3$

S. No	Location	Background Concentration	Predicted Incremental Concentration	Post Project Concentration	Statutory Limits
1	Near Mine Lease Area	23.8	<1.7	25.5	-
2	Veerali Patti Village	25.8	<1.0	26.8	60
3	Semini Patti Village	28.6	<1.0	29.6	
4	Kulasekaran Kottai Village	29.9	<1.0	30.9	
5	Kudladampatti Village	27.2	<1.0	28.2	

It can be seen that the resultant added concentrations with baseline figures even at worst scenario, show that the values of ambient air quality with respect to PM₁₀ are in the range of 53.2 $\mu\text{g}/\text{m}^3$ to 65.3 $\mu\text{g}/\text{m}^3$ and with respect to PM_{2.5} are in the range of 25.5 $\mu\text{g}/\text{m}^3$ to 30.9 $\mu\text{g}/\text{m}^3$ which are within the statutory limits in each case. For preservation of environment in this mine strict enforcement of management schemes and regular air quality monitoring will be undertaken for taking corrective actions, as needed. By adopting the effective implementation of all the mitigative measures, no adverse impact on Air quality due to the mining operation in this lease area is expected.

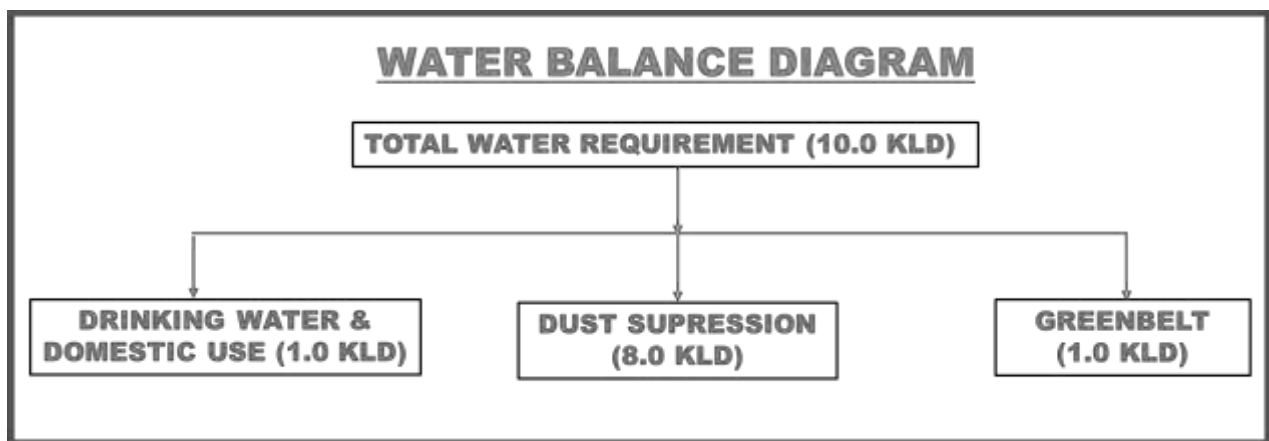


4.3 WATER ENVIRONMENT:

4.3.1 WATER REQUIREMENT:

The total water requirement for this project will be 10.0 KLD comprising 1.0 KLD for drinking water and domestic use, 8.0 KLD for dust suppression and 1.0 KLD for greenbelt. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose. The water balance diagram for the same is shown in **Figure No 4.3**.

Figure 4.3: Water Balance Diagram



4.3.2 SOURCES OF WATER POLLUTION:

The existing water environment showing water quality at different sampling stations in the area has been described in Chapter-III.

Direct impact on human beings due to poor water quality consequent to mining operation can lead to various water borne diseases like diarrhea, jaundice, dysentery, typhoid, etc. Besides, the polluted water may not be useful for animal or human consumption, vegetation and may affect aquatic life, if effluents are not properly treated to remove the harmful pollutants.

The major sources of water pollution normally associated due to mining and allied operations are:

- a. Domestic effluent.
- b. Washouts from stockpile if any.
- c. Disturbance to drainage course in the project area
- d. Generation of mine pit water pumped out from deeper workings if any.

4.3.3 TREATMENT SCHEME:

A. Generation of domestic effluent:

The domestic sewage to be generated from the project will be collected in septic tank with soak pits.

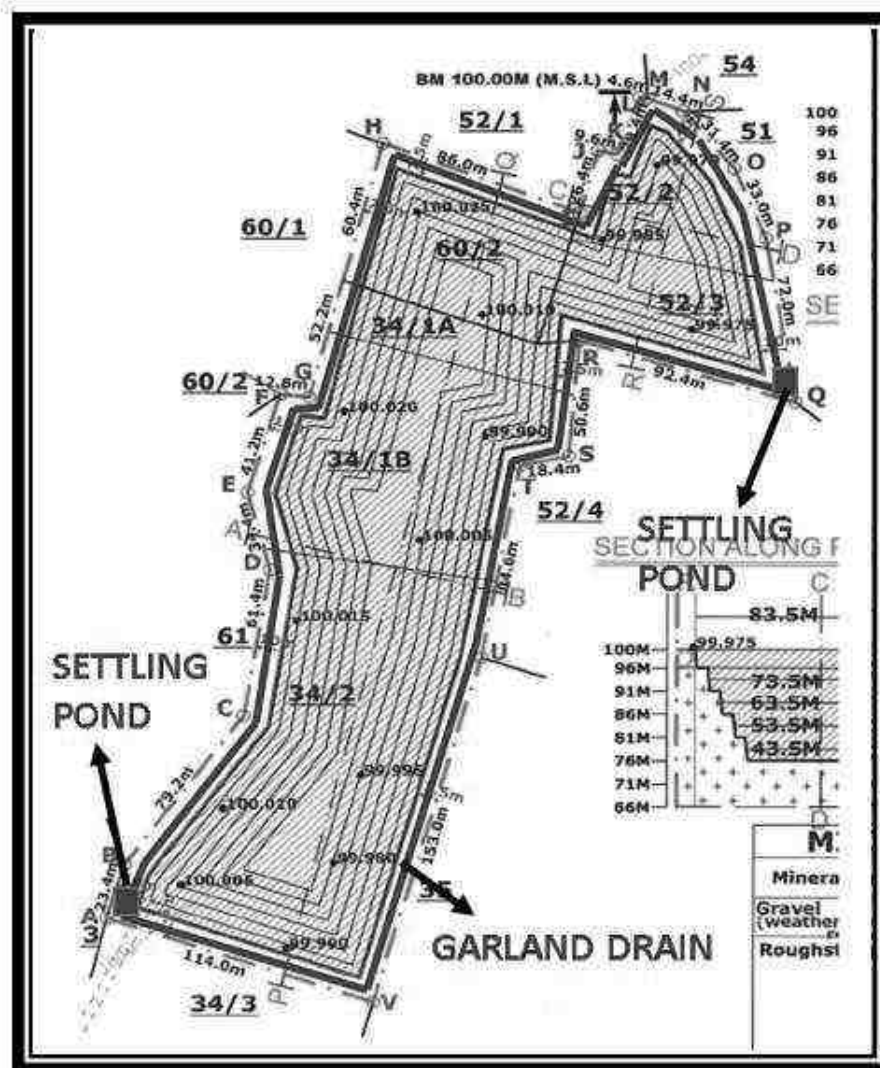
B. Washouts from overburden, ore stockpile, etc.

Since the entire material from the quarry face will be directly dispatched to the consumers, there will not be any stockpiles. There are no waste dumps in this quarry. As such there will not be any wash out due to stock pile or waste dumps.

The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. Towards surface runoff management, a garland drain of length 1120m will be constructed around the quarry and will be connected to 2 settling ponds one on the SW corner and another in the NE corner with silt traps. The supernatant clear water from the settling ponds will be flow to the downstream users. The surface runoff management structures diagram is given in **Figure No 4.4.**

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Figure 4.4: Surface Runoff Management Structures



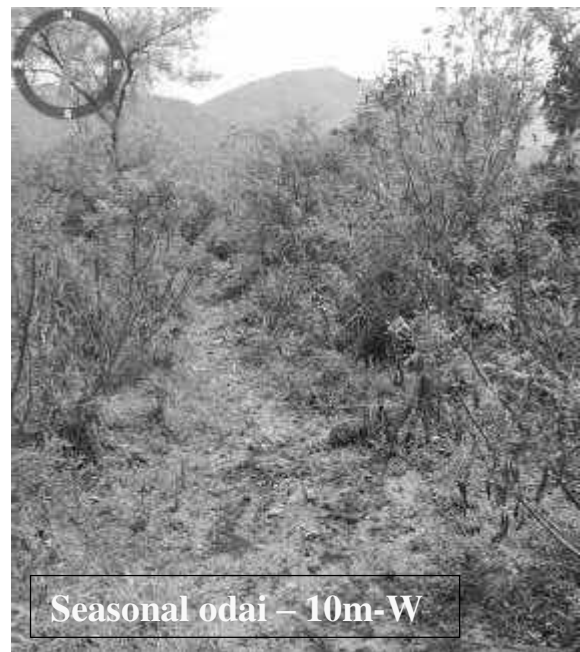
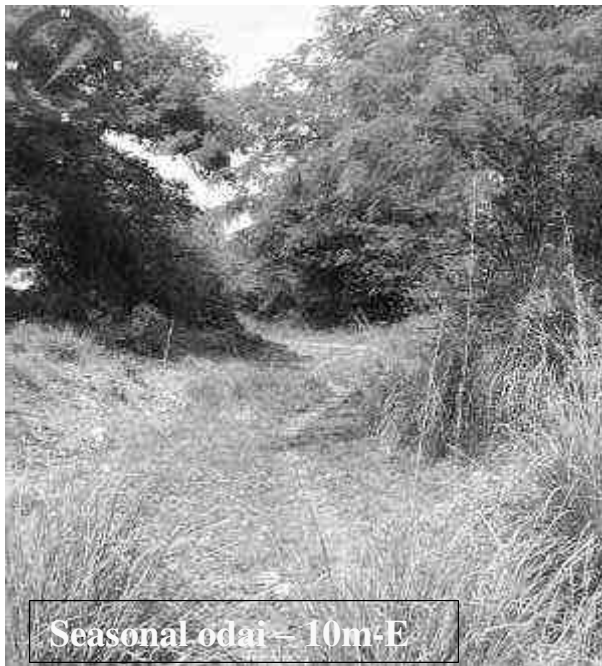
C. Disturbance to drainage courses

There are seasonal odai located adjacent on the eastern and western side of the lease for which 10m safety distance has been left. Both are first order streams and more of a rainwater carrying channel. The channel on the western side originates just near the lease area, whereas the small portion of the channel on the south eastern corner drains water from the northern hilly terrain. It remains dry for most of the season. During monsoon season the rainwater drains through these drainage channel confluences with downstream channels and finally confluence with the river. (Refer Figure No 4.5)



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Figure 4.5: Surface Runoff Management Structures



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Earthen bund will be formed within the lease area in the safety zone as a protective barrier and it will be planted. There is no proposal to discharge any effluent into this water body. No major impact is envisaged on the nearby water bodies due to project operations

D. Generation of mine pit water pumped out from deeper workings if any.

The occurrence and movement of groundwater in hard rock formations are restricted to the porous zones of weathered formations and the open systems of fractures, fissures and joints. Generally, in hard rock regions, occurrence of weathered thickness is discontinuous both in space and depth. Hence recharge of groundwater in hard rock formations is influenced by the intensity and depth of weathering. In the nearby region, the formations are compact with less intergranular porosity and fractures leading to less permeability and transmissivity values and as such the ground water level in this area is deep from surface. The mining area consists of hard compact rock, hence no major water seepage within the mine is expected from the periphery. The ultimate pit depth of mining is 34m. The ground water table in this area is below this level. Hence, ground water intersection is not envisaged and ground water will not be affected appreciably due to the quarrying operation. As mentioned earlier, the rainfall will be collected in the mine floor sump and advantageously used. Excess water if any in the sump will be pumped to settling pond for downstream users.

4.3.3.1 STAGE OF GROUNDWATER DEVELOPMENT

Details of hydrological scenario of the study area were given in para 3.6, Chapter – III. The groundwater resource data of Madurai district was obtained from the data provided in the technical report of the National Water Mission – Notes on Madurai District.

Table 4.8: Ground Water Resources Estimation– Vadipatti Taluk (Ha-m)

Net Groundwater Availability	Existing Gross Draft for Irrigation	Existing Gross Draft for Domestic and industrial water supply	Existing Gross Draft for all uses	Stage of Ground water Development (%)	Category of Block
3428.95	1452.35	161.17	1613.52	47	Safe

From the table it is seen that the stage of groundwater development of Vadipatti where the study area falls is 47 %. In view of this, this area can be categorized as ‘Safe’ from ground water development point of view. Thus there is scope for further ground water development.



4.3.4 REDUCING WATER CONSUMPTION OVER THE YEARS:

4.3.4.1 GENERAL METHODS:

Use of water will be monitored and used to the minimum required. Awareness will be spread to the employees about the importance of water conservation. Tap and showers will be turned off immediately after use and any leaks will be monitored and immediately controlled. Water requirement for greenbelt and dust suppression can be reduced by choosing the native plants/trees species with low water requirement and which can sustain in such conditions for greenbelt/ plantation and also optimum usage to the required minimum. While the dust suppression itself is an important method of pollution control for air pollution due to dust, the water consumption will be monitored strictly. The water tanker will be examined for any sources of leaks and if found will be immediately sealed so that water can be utilized for dust suppression effectively without loss.

4.3.4.2 RAINWATER HARVESTING PLAN

Since the lease proximate areas are with less water potential and the rainwater is the major source for replenishment of ground water, effective rainwater harvesting and other water augmentation measures are proposed in this project.

- a) Development of garland drain around the quarry connected to settling tank.
- b) Cleaning of drain periodically to prevent siltation
- c) The supernatant clear water from the settling pond will drain into the nearby drainage on the western side of the lease.
- d) Utilizing the rainwater harvested in the mine pit to meet the water requirement of the project.
- e) Excess water, if any in consultation with local villagers and in line with government practices shall be provided to the downstream users.

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4.4 NOISE AND VIBRATION:

4.4.1 NOISE ENVIRONMENT:

The ambient noise levels in the study area have been discussed in Chapter - III. The data shows that the existing noise levels are within statutory tolerable limits. The impact prediction and control measure for noise environment due to mining and allied activities is described below:

4.4.1.1 IMPACT PREDICTION DUE TO NOISE:

Noise is one of the inevitable causes of pollution in mining operations, largely due to the extensive mechanization adopted. Besides, other operations such as drilling, blasting, movement of vehicles, etc., also produce noise of considerable magnitude in mining operations. The main sources of noise and expected levels are given below in **Table no – 4.9.**

Table 4.9: Main Sources of Noise

Sl. No.	Source	Inside Cabin	Noise level at dB(A) 10 m. from source
1	Shovel	84-91	59-68
2.	Dumpers/Tipper	87-96	75-85
3.	Drill	88- 95	75-83

Prolonged exposure to a high noise level is harmful to the human auditory system and can create mental fatigue, rebellious attitude, annoyance and carelessness, which may lead to neglect of work and also result in accidents. The impact of noise level as per World Health Organization's 1986 notification is given below in **Table No - 4.10.**

Table 4.10: Impact of Noise Levels

NOISE LEVELS	ADVERSE EFFECTS
90-115 dB	Partial deafness and nervous irritability
> 115 dB	Permanent deafness
Impulsive noise (>90dB)	Frightens livestock grazing in the nearby areas

OSHA (Occupational Safety and Health Administration), USA and other similar organisations stipulate that noise level up to 90 dB(A) is acceptable for eight hours exposure Leq (Equivalent



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sound level) (8hrs) per day. The Directorate General of Mines Safety, in circular No. DG (Tech)/18 of 1975, has prescribed the noise level in mining occupations (TLV) for workers, in an 8 hour shift period with unprotected ear as 90 dB(A) or less.

The noise will be felt only near the active sources. There will be considerable reduction in the noise level due to the absorption factor, environmental surroundings and other attenuation factors. As far as absorption factor is concerned, If the ground cover is vegetated or has a soft texture, sound will decrease at the rate of 4.5 dB(A) every time the distance between the source and the observer is doubled. Besides, there will be shielding factor, which takes into account the environmental surroundings. With every 30m of dense land scape vegetation, 5 dB(A) of additional attenuation can be obtained up to a maximum of 10 dB(A). As such at away places the effect of noise will not be felt.

Anticipated noise levels resulting from operation of the various machineries like excavator, tippers, drill have been computed using point source model. Computation of cumulative noise levels at the nearby villages is made based on the assumption that there are no attenuation paths between the source and the boundary.

Noise modeling is carried out using the following formula:

$Lp2 = Lp1 - 20 \log R2/R1$, Where, $Lp1$ and $Lp2$ are sound pressure levels at points located at distances $R1$ and $R2$ respectively from the source. The study results are as follows:

Table 4.11: Post Project Noise Levels

Sl.No	Location	Baseline Day Eq.in dB(A)	Post project noise Eq in dB(A)	Limit dB(A) as per MoEF&CC
1.	Near Mine Lease Area	45.2	47.4	90
2.	Veerali Patti Village	44.0	44.3	90
3	Semini Patti Village	51.1	51.9	90
4	Kulasekaran Kottai Village	50.9	52.5	90
5	Kudladampatti Village	45.5	46.1	55

From the studies, it is found that the predicted Noise Levels due to mining operations at the periphery of the mine lease itself will be less even without considering any attenuation factor. However, practically there will be attenuation due to vegetation etc., and as such there will not be any adverse noise propagation outside the lease boundary. Since the habitations are also away the effect of noise due to mining operations will not be felt at all in the surrounding villages.



4.4.1.2 CONTROL MEASURES FOR NOISE ENVIRONMENT:

Hence, by following mitigative measures for noise control, the impact on noise levels will be insignificant:

- Planting rows of native trees along roads, around mine area and other noise generating centers to act as acoustic barriers.
- Sound proof operator's cabin for equipments like shovel, tippers, etc.
- Proper and regular maintenance of equipments may lead to less noise generation.
- Providing in-built mechanism for reducing sound emissions.
- Providing earplugs to workers exposed to higher noise level.
- Conducting regular health check-up of workers including Audiometry test for the workers engaged in noise prone area.
- Displaying the noise level status of operational machinery on the machines to know the extent of noise level and to control the time to which the worker is exposed to higher noise levels.
- Provision of tin net on the southern side and green net along the lease periphery on the other sides.

Further green belt and afforestation will be planned and executed to abate noise and dust propagation in the area.

4.4.2 GROUND VIBRATIONAL DUE TO BLASTING EFFECTS:

Vibrations due to blasting may cause damage to nearby structures, if appropriate control measures are not adopted. Flyrock is another possible damage causing outcome of blasting. There are many factors, which influence these, like long explosive column with little stemming column, improper burden, loose material or pebbles near holes and long water columns in the holes.

The following control measures will be planned to reduce ground vibratory conditions to sustainable statutory limits:



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- 1) Carrying out controlled blasting using Nonel delay detonator.
- 2) Optimum design for burden and spacing.
- 3) Reducing explosive charge per delay to minimum.
- 4) The peak particle velocity (PPV) of ground vibration will be kept very low through optimally controlled blasting techniques, after necessary field trials.
- 5) To contain fly rocks, stemming column to be less than burden of the hole. Blasting area will also be muffled, if necessary, to stop fly rocks propagation.
- 6) Blasting will not be carried out when strong winds are. Blasting will be done during midday time.
- 7) Controlled blasting to avoid tension cracks which may endanger the stability of bench slopes in the mine.
- 8) Proper care and supervision during blasting by a competent and experienced person to be carried out.

By adoption of above measures, it will be ensured that the ground level vibration due to blasting are maintained within the limits prescribed by DGMS, Dhanbad at the mining areas vide Circular No. 7 dated 29 -08-1997 as given below

Table 4.12: Permissible Peak Particle Velocity (PPV) In Mining Areas

Type of structure	Dominant excitation frequency Hz		
	<8 Hz	8-25 Hz	>25 Hz
In mm/sec			
A. Buildings/structures not belonging to owner			
Domestic houses /structures (Kuchha brick and cement)	5	10	15
Industrial buildings (RCC and framed structures)	10	20	25
Objects of historical importance and sensitive structures.	2	5	10
B. Building belonging to owner with limited span of life			
Domestic houses/structures (Kuchha brick and cement)	10	15	25
Industrial buildings (RCC and framed structures)	15	25	50

Besides, different blasting time for the projects in the vicinity is suggested and the timing is to be mentioned in the display board in the respective mines entrance.



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4.5 LAND ENVIRONMENT:

The lease area of 4.20.0 Ha in S.F.No34/1A,1B,2, 52/2,3 & 60/2 is a consent patta land. The present land use pattern, and the post mining land use pattern is shown below:

Table 4.13: Land Use Table

Sl. No.	Land Use	Present Area (Hect)	Area in use during the 5 year period (Ha)	Area in use during the 10 year period (Ha)
1.	Quarrying Pit	Nil	3.18.0	3.18.0
2.	Infrastructure & Road	Nil	0.08.0	0.08.0
3.	Greenbelt and Dump	Nil	0.72.0	0.72.0
4.	Unutilized	4.20.0	0.10.0	0.10.0
5.	Fencing	Nil	0.12.0	0.12.0
	Total	4.20.0	4.20.0	4.20.0

4.5.1 LAND RECLAMATION:

There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. Hence, there is no external overburden dump involved. At the end of the 5 year period, 3.18.0 Ha will be used as mined out area at 24m depth. Subsequently, in the remaining 6th to 10th year there will be only depth ward mining in the same mined out area up to 34 m depth. Ultimately the entire mined out area will be left as water body. 0.08.0 Ha will be the mine roads& infrastructure, 0.72.0 Ha will be covered with vegetation, 0.10.0 ha will be undisturbed area and 0.12.0 will be fencing.

Table 4.14: Land Use During Post Operational Period

S.No	Description	Land use (Ha.)			
		Plantation	Water body	Others	Total
1	Quarrying Pit	-	3.18	-	3.18.0
2	Infrastructure & Road	0.08.0	-	-	0.08.0
3	Green Belt	0.72.0	-	-	0.72.0
4	Unutilized	0.10.0	-	-	0.10.0
5	Fencing			0.12.0	0.12.0
	TOTAL	0.90.0	3.18.0	0.12.0	4.20.0

Entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. In the post mining stage the entire mined out area shall be used as a rainwater harvesting pond.



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4.6 BIOLOGICAL ENVIRONMENT:

4.6.1 EXISTING FLORA AND FAUNA:

The core zone area is barren with grasses and bushes. Details of flora/fauna pattern in core and buffer zones have been described in chapter - III.

4.6.2 IMPACT OF MINING ON BIOLOGICAL ENVIRONMENT:

The significance of impact on biological environment due to mining and allied activities on various fronts is described below:

Table 4.15: Impact on Biological Environment

S.No	ISSUES	OBSERVATIONS
1	Clearance of vegetation due to mining and allied activities	No clearance of major vegetation is involved.
2	Retardation of tree growth, tip burning, etc, due to deposition of dust and the Particulate matter generated from the mining operation.	Necessary mitigative measures like dust suppression, proper maintenance of equipment's, roads will be carried out to prevent dust generation.
3	Proximity to national park/ wildlife sanctuary/reserve forest/mangroves/Coastline/estuary/ sea	The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc.
4	Release of effluents into water body that also supplies water to wildlife	There is no proposal to discharge any effluent into nearby water bodies.
5	Proposed project could increase siltation that would affect nearby biodiversity area	Surface runoff management structures like garland drain, settling pond etc. as explained above will be constructed and as such there will not be any appreciable impact on surface water quality which in turn can affect the bio diversity of the area.
6	Activities of the project affects the breeding/nesting sites of birds and animals	In the present ML area, there is no wetland. A migratory bird needs sufficient wetlands with sufficient food, shelter, roosting places and nesting places which is not possible here.
7	Located near an area populated by rare or endangered species	There are no Schedule 1 animals
8	Risk of fall/slip or cause death to wild animals due to project activities	In the post mining stage, barbed wire fencing is proposed all around the mined-out void to prevent falling of animals in the mine pits.
9	Project affects the forest-based livelihood/any specific forest product on which local livelihood depends	Not applicable
10	Project likely to affect migration routes	No migration routes are in the area.



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11	Project likely to affect flora of an area, which have medicinal value	No such significantly important medicinal value species within the ML area and its nearby region.
12	The project likely to affect wetlands, fish breeding grounds, marine ecology	There are no any wetlands, fish breeding grounds, marine ecology nearby the ML area which will be affected due to this project.
13	Project affects the Agriculture, Forestry and Traditional Practices	Most of the study area remain uncultivated and only in patches of land away from the lease area, agricultural activities are carried during monsoon rainfall. Due to poor quality of the soil, inconsistent rainfall, water scarcity, high agricultural labor cost, manpower shortage and less yield are reason for very little agricultural activity in this region.
14	Impact on soil health and biodiversity	The lease area is covered with grasses and bushes only (Photograph of the site attached in Chapter-II). Besides, there is no waste generation, disposal or stacking involved in this project. As such no loss of soil health and Bio-diversity is expected.
15	Climate change leading to droughts, floods,etc.	<ul style="list-style-type: none"> •As such the production from this lease is very low to cause any appreciable impact.
16	Pollution leading to release of greenhouse gases (GHG) rise in temperature (Hydrothermal/Geothermal effect due to destruction in environment, Bio-geochemical processes and its foot prints including environmental stress) and livelihood of local people.	<ul style="list-style-type: none"> •No adverse impact on the surrounding environment is envisaged since the number of equipment's to be used to achieve this small production is very less and the magnitude of operation is of very small level. •Besides, as is it a mining project, no adverse generation of heat is envisaged. •Certified vehicles with low carbon emissions will only be used. These equipment's will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned wherein 2200 number of plants will be planted in and around the lease area. •Geologically the area in and around the lease area contains charnokite type rock formation containing mostly fallow land. As such there no major vegetation or agricultural activities are observed. •There are no Protected or Eco-Sensitive Zone or forest land nearby wherein it can have an impact. •It will be ensured that mining will be carried out adhering to all the statutory rules and regulations and maintaining the environmental quality within the prescribed standards by effective implementation of various mitigative measures. •These mitigative measures will be continued for the entire lease period ensuring no impact on the environment. •As such release of Greenhouse gases (GHG), rise in temperature, affecting livelihood of the local people ,loss of Agriculture, Forestry and Traditional Practices is not



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		envisaged. Such a limited scope will not induce any climatic change leading to droughts, floods etc.
17	Possibilities of water contamination and impact on aquatic ecosystem health and impact on Sediment geochemistry in the surface streams	<ul style="list-style-type: none"> • This being a mining project no process effluent will be generated. • Water generation is expected to be due to <ul style="list-style-type: none"> ✓ Direct rainfall falling within the pit ✓ Rain water draining near the lease area. • Direct rain fall will be collected in the mine floor sump. Water from sump will be pumped to settling pond for downstream users. • Rainwater from the mine periphery will be collected through peripheral garland drain. Garland drain will be connected to a settling pond. Supernatant clear water from settling pond confirming to applicable limits will be let out to downstream users for agricultural or other purposes. • Due to above mentioned reasons and absence of perinial water bodies nearby where in any marine ecosystem is observed, no effect on this front is expected.

There are no migratory corridors, migratory avian-fauna, rare endemic and endangered species. Therefore there shall be no impacts due to mining activity on them. Even though there are no adverse impact on bio diversity and flora/fauna status due to project operations, positive impacts will arise due to well-planned reclamation measures for restoration of land status in the area ultimately to productive land category with elaborately planned green belt development activities.

4.6.3 CONTROL MEASURES FOR BIOLOGICAL ASPECTS:

To reduce the adverse effects on flora/fauna status of the area due to deposition of dust generated from mining operations, mobile water tanker systems will be ensured in all dust prone areas to arrest dust generation. Methodical and well-planned plantation scheme will be carried out depending upon the immediate need, priority and availability of land. The plantation will be done along the lease boundary in a phased manner.



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4.6.4 GREEN BELT & PLANTATION:

In the lease area, safety barrier 7.5m around the periphery and 10m safety zone for the Odai on the eastern and western side of the lease area. About 2200 trees will be planted in and around the lease area.

Table 4.16: Proposed Plantation

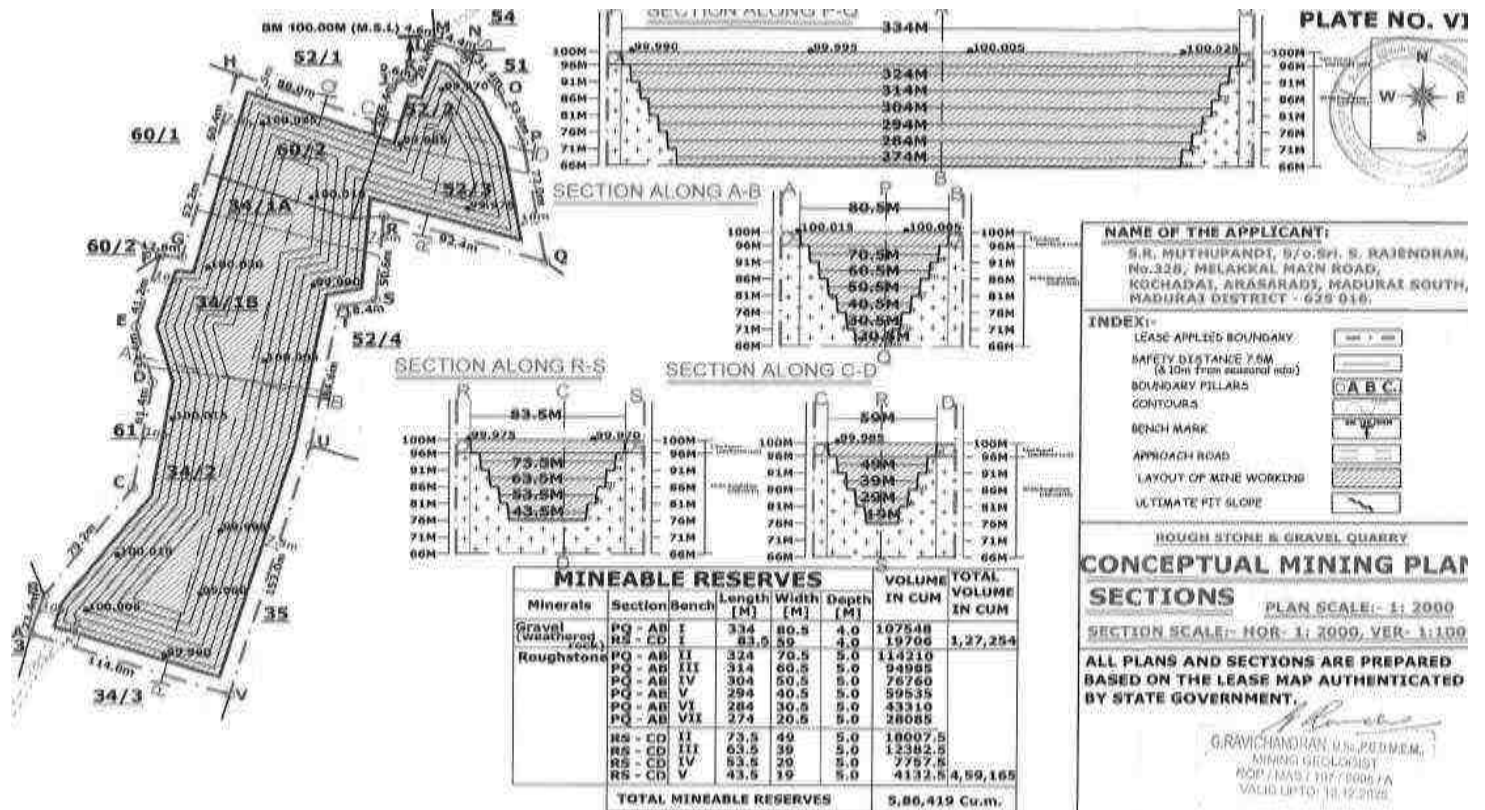
Year	Species	No Of Trees
1	Pongamia pinnata, Syzygium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemosa, Cassia siamea, Azadirachta indica	200
2		200
3		200
4		200
5		200
6-10		1200
	Total	2200

At the end of the 5 year period, 3.18.0 Ha will be used as mined out area at 24m depth. Subsequently, in the remaining 6th to 10th year there will be only depth ward mining in the same mined out area up to 34 m depth. Ultimately the entire mined out area will be left as water body. 0.08.0 Ha will be the mine roads & infrastructure, 0.72.0 Ha will be covered with vegetation, 0.10.0 ha will be undisturbed area and 0.12.0 will be fencing. The post mining land use plan showing afforestation and water body is shown in **Figure No- 4.6**.



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Figure 4.6: Mine Closure Plan



4.7 SOCIO ECONOMIC ENVIRONMENT:

The entire lease area is in the proponent's possession. Hence, there are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here.

The mining operations in the proposed mine will employ about 18 persons directly and about 50 persons on indirect basis through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise in this area, which will provide raising income levels and standards of living in the area through various service related activities connected with the project operations as shown under.

- Project related logistical operations for transport of Rough Stone, etc,
- Various trading services for consumer goods, spare parts, sundry items, etc.
- Contractual services connected with the project.



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- Green belt and horticultural works in the project.
- Casual labor needs for various activities.

Besides, there will be improvement in the following aspects due to project operation:

- ❖ Improvement in infrastructural facilities, providing education aids etc. in nearby schools
- ❖ Betterment of drinking water facilities.
- ❖ Benefit to the State and the Central governments through financial revenues by way of royalty, tax, duties, etc from this project directly and also indirectly.

From above details, it is clear that the project operations will have highly beneficial positive impact in the area.

Table 4.17: CER Cost

Project Cost (Rs.)	Rs. 1,85,75,310/-
CER Cost Requirement (2% of the Project Cost) (Rs.)	Rs. 3,71,506.2/-
Revised CER cost allocated (Rs.)	Rs. 5,00,000/-

However, towards the socio economic development of the surrounding area, the proponent has earmarked an amount of Rs.5 Lakhs under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a phased manner in provision of facilities in nearby Government School.

4.8 OCCUPATIONAL HEALTH AND SAFETY:

4.8.1 BASELINE STATUS:

Primary data collection through field survey conducted in the study area reveals that there is no reported incident of any occupational diseases in the area. Hazardous jobs like blasting, loading, etc. are planned to be executed safely and with all precautionary measures as prescribed in Metalliferrous Mines Regulations of 1961, so as to minimize hazards and incidences of health problems.



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4.8.2 IMPACTS ON OCCUPATIONAL HEALTH DUE TO PROJECT OPERATIONS:

Anticipated occupational illness sequel to mining activities can be as follows:

- Dust related pneumonia
- Tuberculosis
- Rheumatic arthritis
- Segmental vibration
- Miner's Nystagamus

4.8.3 MITIGATIVE MEASURES FOR OCCUPATIONAL HEALTH:

To reduce pollution emanation from the project, following measures are being and will be taken:

- Water sprinkling on haul roads etc.
- Green belt creation to arrest dust and reduce noise propagation.
- Acceptance of good control measures for reducing air pollution, as mentioned earlier in the chapter.
- Control of noise levels through good preventive maintenance of machineries, green belt creation, provision of ear plug to workers, etc.
- In addition to above measures, the following remedial steps are being and will be enforced to ensure minimization of occupational health and safety problems.
- Medical examination of workers by qualified doctors, as per DGMS circulars.
- Regular awareness campaigns amongst staff and workers
- Staff will be provided with PPE to guard against excess noise levels, Dust generation and inhalation, etc., as per standards prescribed by DGMS.



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4.8.4 MITIGATIVE MEASURES FOR SAFETY ASPECTS:

The following safety gadgets will be provided to the staff and workers based on their area of operation and work & requirement:

SI No	Safety Equipments
1.	Helmets
2.	Shoes
3.	Goggles
4.	Dust Mask
5.	Hand Gloves
6.	Reflective Jackets
7.	Ear Muffs
8.	Signal Lights/Flags

4.9 LOGISTICAL SYSTEM:

From this proposed quarry the entire output will be transported to the crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. The expected peak transport will be as follows:

Table 4.18: Details of Transportation

Sl.no	Particulars of activity	Quantity
A	Maximum Roughstone Transported (m ³ /year)	51,207.5
B	No of days in a year	300
C	Transport hours per day	8
D	Truck capacity in T	20
	Trips per hour	3 Trips/hr

From the above table it is seen that there will be about 3 trips per hour. The existing road can absorb this traffic due to this project. However, the following mitigative measures are suggested:

- ❖ Water sprinkling on material in the transport vehicles before transporting, so that no dust nuisance during transport will arise.
- ❖ Plantation on either side of the transport road in consultation with the concerned department.
- ❖ Proper maintenance of transport roads
- ❖ Proper maintenance of transport vehicles.



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- ❖ Avoiding overloading of material
- ❖ Covering of loaded vehicles with tarpaulins sheet if warranted.
- ❖ Keeping traffic regulators at vulnerable locations.
- ❖ Distribution of transport vehicles for avoiding choking of roads
- ❖ Limiting of speed
- ❖ Installation of barriers at vulnerable locations
- ❖ Provision of tyre washing facility at the mine outlet

4.10 WASTE MANAGEMENT:

Solid Waste: Since the entire mined out material will be used there will not be any solid waste generation from this project.

Liquid waste: There is no process effluent generation from this mine. Hence no liquid waste is generated.

Hazardous waste management: In this project the following management practices will be followed:

- Ensuring availability of different colour bins for collection of different types of waste.
- Storing of Hazardous waste material in a separate storage area with impervious containers for waste oil, oil contaminated clothes, used lead acid batteries, scraps, tyre storage etc.
- Ensure that there are no leakages/spillages of hazardous wastes.
- Ensuring that the fire extinguisher system is available at hazardous material storage area.

The hazardous waste if any will be disposed through authorized recyclers or re-processors periodically. The hazardous wastes will be transported in accordance with the provisions of rules. By effective implementation of above said mitigation measures no major impact due to Hazardous waste is expected.



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Plastic waste: Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.

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CHAPTER 5
ANALYSIS OF ALTERNATIVES

5.1 ALTERNATE TECHNOLOGY:

This is a proposed Rough Stone and Gravel Quarry in which Mechanized Open Cast mining will be carried out. It involves jack hammer drilling, blasting, excavation, loading and transportation of Rough stone to the crushing units. As this method is techno economically proven, consideration of an alternate technology is not warranted.

5.2 ALTERNATE SITE:

The mineral deposits are site specific in nature; hence question of seeking alternate site does not arise.

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CHAPTER 6

ENVIRONMENTAL MONITORING PROGRAMME

6.1 GENERAL

In this project, appropriate environmental monitoring programme are framed. Regular, systematic and sustained programme schedules for implementation and monitoring of various control measures are devised with clear cut guidelines of various concerned plans for keeping a continuous surveillance on the various environmental quality parameters in the area.

The monitoring schedules are planned to aim at regular and systematic study of various pollution levels with respect to air and water quality, noise levels etc., to ensure that they conform to the standards laid down by the Environment Protection Act, 1986 and various Central and State Pollution Control Board Limits.

The various methodologies and frequency of studies of all environmental quality parameters will be as per prescribed norms laid down by MOEF&CC and State Pollution Control Board. This being a small quarry operation, the Mines in-charge will take care of all the environmental related works also.

Environmental control measures include components like air, water and soil quality, noise levels, afforestation measures, etc. For monitoring of environment over the life of the mine, a set of stations for study of quality parameters are fixed as per the actual requirements and prevailing conditions of environmental factors, as dictated from time to time, depending on the prevailing pollution levels.

6.2 MONITORING SCHEDULES FOR VARIOUS PARAMETERS

The monitoring schedules are planned for systematic study of various pollution levels with respect to air and water qualities, noise levels, etc. to ensure that they conform to the standards laid down by Environmental Protection Act and various statutory Limits. However, based on the need and priority it may be suitably modified / improved in consultation with local authorities. The monitoring schedules to be adopted in this quarry are given below.



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Table 6.1: Environmental Monitoring Schedule

S.No	Environmental Parameters	Parameters to be monitored	Monitoring area coverage /locations	Frequency of monitoring
1	Air Quality	Sulphur dioxide (SO ₂), Oxides of Nitrogen (NO ₂), Respirable Particulate Matter (PM _{2.5} and PM ₁₀).	2 locations in the buffer zone and 1 work zone locations.	Once in a year in each location.
2	Water Quality	General, Physical, and chemical parameters	Ground Water samples (around the project area) and Mine Pit water samples	Once in a year
3	Water Table Fluctuations	Water Levels	Nearby wells and Borewells	On yearly basis pre and post monsoon level
4	Noise	Leq. Lmax Lmin, Leq Day & Leq Night dB(A)	Work zone locations and buffer zone villages	Once in a year
5	Vibration	Peak Particle Velocity	Mine periphery	Once to arrive at optimum blasting parameters
6	Socio Economic Environment	Socio Economic Survey, Review of implementation of CER activities proposed	Buffer Zone	Yearly basis
7	Occupational Health	Occupational health survey to detect early incidence of diseases, Audiometry Test for workers in noise prone area and review of safety matters.	Staff and Workers involved in the project	Once in a year
8	Greenbelt	Maintenance	Within the lease area	Regularly

6.3 LEGISLATIVE AND REGULATORY FRAME WORK:

The project will have environmental policy declaring its responsibility and commitment to protect the environment and to ensure public safety. The existing policy will be available with all concerned officials of the plant. The following environmental standards as per methodologies prescribed, by MOEF/CPCB/TNPCB will be enforced in this project:



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Table 6.2: Environmental Standards

Standards	Issued By	Reference
National Ambient Air Quality Standards	Central Pollution Control Board	Table No. 6.3
Water quality standards per IS 10500:2012	Bureau of Indian Standards	Table No.6.4
Noise Standards	CPCB / MoEF&CC	Table No.6.5
Permissible Peak Particle Velocity	DGMS, Dhanbad	Table No.6.6

Table 6.3: National Ambient Air Quality Standards

[1987 (1) - 384 (2)] 3

NATIONAL AMBIENT AIR QUALITY STANDARDS
CENTRAL POLLUTION CONTROL BOARD
NOTIFICATION
New Delhi, the 18th November, 1987

No. B-25016/28/50/PCL-1—In exercise of the powers conferred by Sub-section (2) (b) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No.14 of 1981), and in supersession of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual* 24 hours**	50 80	20 80	- Improved West and Gaeke - Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM ₁₀ , µg/m ³	Annual* 24 hours**	50 100	60 100	- Gravimetric - TOEM - Beta attenuation
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} , µg/m ³	Annual* 24 hours**	40 60	40 60	- Gravimetric - TOEM - Beta attenuation
5	Ozone (O ₃), µg/m ³	8 hours** 1 hour**	100 180	100 180	- UV photometric - Chemiluminescence - Chemical Method
6	Lead (Pb), µg/m ³	Annual* 24 hours**	0.50 1.0	0.50 1.0	- AAS /ICP method after sampling on What 2000 or equivalent filter paper - ED-XRF using Teflon filter
7	Carbon Monoxide (CO), mg/m ³	8 hours** 1 hour**	02 04	02 04	- Non Dispersive Infra Red (NDIR) spectroscopy
8	Ammonia (NH ₃), µg/m ³	Annual* 24 hours**	100 400	100 400	- Chemiluminescence - Indophenol blue method



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4 THE GAZETTE OF INDIA : EXTRAORDINARY [PART III--Sec. 4]

(1)	(2)	(3)	(4)	(5)	(6)
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05	- Gas chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benzo(a)Pyrene (BaP) - particulate phase only, ng/m ³	Annual*	01	01	- Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As), ng/m ³	Annual*	06	06	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m ³	Annual*	20	20	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note. — Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.

SANT PRASAD GAUTAM, Chairman
[ADVT-III/4/184/09/Exy.]

Note: The notifications on National Ambient Air Quality Standards were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998.



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Table 6.4: IS – 10500 :2012 Standards

Table 1 Organoleptic and Physical Parameters
(Foreword and Clause 4)

Sl No.	Characteristic	Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to Part of IS 3025	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
i)	Colour, Hazen units, <i>Max</i>	5	15	Part 4	Extended to 15 only, if toxic substances are not suspected in absence of alternate sources
ii)	Odour	Agreeable	Agreeable	Part 5	a) Test cold and when heated b) Test at several dilutions
iii)	pH value	6.5-8.5	No relaxation	Part 11	—
iv)	Taste	Agreeable	Agreeable	Parts 7 and 8	Test to be conducted only after safety has been established
v)	Turbidity, NTU, <i>Max</i>	1	5	Part 10	—
vi)	Total dissolved solids, mg/l, <i>Max</i>	500	2 000	Part 16	—

NOTE — It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable' render the water not suitable; but still may be tolerated in the absence of an alternative source but up to the limits indicated under 'permissible limit in the absence of alternate source' in col 4, above which the sources will have to be rejected.



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Table 2 General Parameters Concerning Substances Undesirable in Excessive Amounts
(Foreword and Clause 4)

Sl No.	Characteristic	Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
i)	Aluminium (as Al), mg/l, Max	0.03	0.2	IS 3025 (Part 55)	—
ii)	Ammonia (as total ammonia-N), mg/l, Max	0.5	No relaxation	IS 3025 (Part 34)	—
iii)	Anionic detergents (as MBAS) mg/l, Max	0.2	1.0	Annex K of IS 13428	—
iv)	Barium (as Ba), mg/l, Max	0.7	No relaxation	Annex F of IS 13428* or IS 15302	—
v)	Boron (as B), mg/l, Max	0.5	1.0	IS 3025 (Part 57)	—
vi)	Calcium (as Ca), mg/l, Max	75	200	IS 3025 (Part 40)	—
vii)	Chloramines (as Cl ₂), mg/l, Max	4.0	No relaxation	IS 3025 (Part 26)* or APHA 4500-Cl.G	—
viii)	Chloride (as Cl), mg/l, Max	250	1 000	IS 3025 (Part 32)	—
ix)	Copper (as Cu), mg/l, Max	0.05	1.5	IS 3025 (Part 42)	—
x)	Fluoride (as F) mg/l, Max	1.0	1.5	IS 3025 (Part 60)	—
xi)	Free residual chlorine, mg/l, Min	0.2	1	IS 3025 (Part 26)	To be applicable only when water is chlorinated. Tested at consumer end. When protection against viral infection is required, it should be minimum 0.5 mg/l
xii)	Iron (as Fe), mg/l, Max	0.3	No relaxation	IS 3025 (Part 53)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
xiii)	Magnesium (as Mg), mg/l, Max	30	100	IS 3025 (Part 46)	—
xiv)	Manganese (as Mn), mg/l, Max	0.1	0.3	IS 3025 (Part 59)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
xv)	Mineral oil, mg/l, Max	0.5	No relaxation	Clause 6 of IS 3025 (Part 39) Infrared partition method	—
xvi)	Nitrate (as NO ₃), mg/l, Max	45	No relaxation	IS 3025 (Part 34)	—
xvii)	Phenolic compounds (as C ₆ H ₅ OH), mg/l, Max	0.001	0.002	IS 3025 (Part 43)	—
xviii)	Selenium (as Se), mg/l, Max	0.01	No relaxation	IS 3025 (Part 56) or IS 15303*	—
xix)	Silver (as Ag), mg/l, Max	0.1	No relaxation	Annex J of IS 13428	—
xx)	Sulphate (as SO ₄) mg/l, Max	200	400	IS 3025 (Part 24)	May be extended to 400 provided that Magnesium does not exceed 30
xxi)	Sulphide (as H ₂ S), mg/l, Max	0.05	No relaxation	IS 3025 (Part 29)	—
xxii)	Total alkalinity as calcium carbonate, mg/l, Max	200	600	IS 3025 (Part 23)	—
xxiii)	Total hardness (as CaCO ₃), mg/l, Max	200	600	IS 3025 (Part 21)	—
xxiv)	Zinc (as Zn), mg/l, Max	5	15	IS 3025 (Part 49)	—

NOTES

1 In case of dispute, the method indicated by "*" shall be the referee method.

2 It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable' render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicated under 'permissible limit in the absence of alternate source' in col. 4, above which the sources will have to be rejected.



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Table 6.5: Noise Level Standards

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note :

1. Day time shall mean from 6 a.m. and 10.0 p.m.
2. Night time shall mean from 10.0 p.m. and 6 a.m.
3. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.
4. Mixed categories of areas may be average as one of the four above mentioned categories by the competent authority.

* dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A “decibel” is a unit in which noise is measured.

“A”, in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq: It is energy mean of the noise level over a specified period.

Table 6.6: Permissible Noise For Industrial Workers As Laid Down By CPCB

Exposure time (in hr. per day)	Limit in dB(A)
8	90
4	93
2	96
1	99
1/2	102
1/4	105
1/8	108
1/16	111
1/32	114



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Table 6.7: Permissible Peak Particle Velocity (PPV) In Mining Areas

In mm/sec.

Type of structure	Dominant excitation frequency Hz		
	<8 Hz	8-25 Hz	>25 Hz
A. Buildings/structures not belonging to owner			
Domestic houses /structures (Kuchha brick and cement)	5	10	15
Industrial buildings (RCC and framed structures)	10	20	25
Objects of historical importance and sensitive structures.	2	5	10
B. Building belonging to owner with limited span of life			
Domestic houses/structures (Kuchha brick and cement)	10	15	25
Industrial buildings (RCC and framed structures)	15	25	50

The above said monitoring location and the frequency of monitoring shall be suitably modified in consultation with the nodal agency as per the actual requirements and prevailing conditions of the mine and environmental factors, as dictated from time to time, depending on the prevailing pollution levels, if required.

6.4 ENVIRONMENTAL MONITORING COST:

Towards environmental monitoring it is proposed to allocate a budget of Rs. 50,000 per annum for this project. Further details of the capital and recurring cost of environmental management has been provided in in Table No. 10.2, Chapter-X.



CHAPTER 7 ADDITIONAL STUDIES

7.1 GENERAL:

The additional studies covered for this EIA / EMP report are:

1. Public consultation of the project as per MoEF&CC mandates.
2. Risk Assessment
3. Cumulative Impact Study
4. R&R Plan
5. Mine closure planning

7.2 PUBLIC CONSULTATION:

This draft EIA/EMP report will be exposed to public consultation as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures. The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu.

7.3 RISK ASSESSMENT:

For the various risks, likely to arise, detailed analysis of causes and control measures is given in below:

S.No	Factors	Causes of risks	Control measures
1.	Removal of material	a) Bench may slide due to its unconsolidated nature. b) Vibration due to movement of vehicles in the benches.	Overall bench slope angle will be maintained optimally as per DGMS requirement. Working bench width will be more than bench height.
2.	Drilling	a)Due to high pressure of compressed air hoses may burst.	• Periodical preventative maintenance and replacement of worn out accessories in



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S.No	Factors	Causes of risks	Control measures
		b) Down the hole drill rod may break due to improper maintenance of rod.	the compressor and drill equipment. • As per manufacturers recommendation rod to be replaced and bits will be changed.
3.	Blasting	a) Fly rock, ground vibration, noise etc. b) Improper charging of explosives	• Burden and spacing will be kept optimum on trial basis. • Explosive charge per delay will be minimized. • Controlled blasting with Nonel will be used.
4.	Excavation	a) Hauling and loading equipment are in such proximity while excavation b) Swinging of bucket over the body of tipper c) Driving of unauthorized person	• Operator shall not operate the machine when person & vehicles are in such proximity. • Shall not swing the bucket over the cab and operator leaves the machine after ensuring the bucket is on ground. • Shall not allow any unauthorized person to operate the machine by effective supervision.
5.	Transportation	a) Operating the vehicle "nose to tail" b) Overloading of material c) While reversal & overtaking of vehicle d) Operator of truck leaving his cabin when it is loaded	• It will be ensured that all these causes will be nullified by giving training to the operators. • No over loading will be done. • Audio visual reverse horn will be provided. • Proper training will be given.
6.	Fire due to electricity and Oil	a) Due to the short circuit of cables & other electrical parts b) Due to the leakage of inflammable liquid like diesel, oil etc.	• Electrical parts shall be cleaned frequently with the help of dry air blower • All fastening parts and places will be tightening. Suitable fire suppression equipment shall be provided.
7.	Natural calamities	Unexpected happenings	The mine management is capable to deal with the situation.

This being a small rough stone project that too working in a safe area, no major disaster is expected.



7.3.1. DISASTER MANAGEMENT PLAN:

In General, following natural/industrial hazards may occur during normal operation.

- Inundation of mine pit due to flood/excessive rains :
- Slope failure of the pit and waste dumps
- Accident due to heavy mining equipment and
- Blasting and use of Explosives

Mining operation in this lease will be carried out under the management control and direction of a qualified mine manager. The DGMS have been issuing a number of standing orders, model standing orders and circulars to be followed by the mine management in case of disaster. All these orders statutory rules and regulations will be followed. Seismically project site and study area falls in the Zone – II and is described as least active zone. There are no perennial water body near the lease area to cause any flooding. As such no disaster due to this project is envisaged.

In order to take care of above hazard / disasters the following control measures have been adopted.

- Checking and regular maintenance of garland drains and earthen bunds to avoid any inflow of surface water in the mine pit.
- Avoiding mining during heavy monsoon period and marching of all the HEMM to the top benches during rainy period.
- Provision of high capacity standby pumps with generator sets with sufficient quantity of diesel for emergency pumping especially during monsoon.
- All safety precautions and provisions of regulations will be strictly followed during all mining operations
- Prohibiting entry of unauthorized persons.
- Provision of Fire fighting and first-aid provisions in the mines.
- Provisions of all the safety appliances such as safety boot, helmets, goggles, dust masks, ear plugs and ear muffs etc. are made available to the employees for their use.



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- Training and refresher courses for all the employees working in hazardous premises
- Observance of all safety precautions for blasting and storage of explosives as per MMR 1961.
- Working of mine, as per approved plans and regularly updating the mine plans
- Cleaning of mine faces regularly
- Proper storage, usage of explosives through competent persons.
- Regular maintenance and testing of all mining equipment as per manufacturers guidelines
- Suppression of dust on the haulage roads with frequent water sprinkling, etc.
- Increasing the awareness of safety and disaster through competitions, posters and annual safety weeks and environmental weeks, encouraged through suitable rewards and other similar drives.

The management and the EMC will be able to deal with the situations efficiently keeping in view of the likely sources of dangers in the mine.

7.4 REHABILITATION AND RESETTLEMENT (R & R) PLAN:

The mining activities will be carried out within the mine lease area only. The entire mine lease area is a Patta land. There is no population within the ML area. Hence, the question of R&R does not arise.

7.5 MINE CLOSURE PLAN:

In the mine closure stage all necessary measures will be taken as per Act & Rules, There is no proposal for back filling, reclamation and rehabilitation. The quarried pits after the end of life of mine will be properly fenced all around to prevent inherent entry of public and cattle and all the statutory requirements will be fulfilled. As already explained, in the post mining stage the rainwater harvested in the mined out void shall be utilized for irrigation and domestic needs locally. The mine closure plan is provided in **Figure 4.5**.



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7.6 CUMULATIVE IMPACT STUDY:

The lease area is located in Viralipatti village, Vadipatti Taluk, Madurai District, Tamil Nadu. The details of the other quarries located within the 500m radius of the project considered for cumulative impact study now (**Annexure-3**) has been provided below:

Table 7.1: Details of quarries within 500m radius

S.No	Name of the lessee	Village & SF.No.	Extent in Hectare	Remarks
1. Existing Quarries				
1.	A.Janakiraman	Viralipatti 55/1	2.93.5	
1. Abandoned Quarries				
1.	D.Ponrajan	Viralipatti 43	1.94.0	Rc.No. 1223/09/Mines, Dated 02.12.2009 to 01.12.2014 Lease period 02.12.2009 to 01.12.2014
2. Proposed Quarries				
1.	Thiru. S.R. Muthupandi	Viralipatti 34/1A,1B,2, 52/2,3 & 60/2	4.20.0	Proposed
Total Extent of existing & Proposed quarries			7.13.5	

From that above it is seen that, although the individual lease area of this project is less than 5 Ha, the other existing and proposed quarries within the 500m radius along with this subject project works out to >5 Ha. As such cluster situation applicable and this EMP is prepared. From the above table it is clearly shows that the only one lease was executed and that also not working, still i.e. A.Janakiraman, also included in the impact of cumulative impact study is given below.



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Figure 7.1: Vicinity Map



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Table 7.2: Salient details of the proposed quarries

S.No	Project Name	S.R.Muthupandi	A.Janakiraman
1	Survey No.	34/1A,1B,2, 52/2,3 & 60/2	55/1
2	Village	Viralipatti	Viralipatti
3	Taluk	Vadipatti	Vadipatti
4	District	Madurai	Madurai
5	State	Tamil Nadu	Tamil Nadu
6	Lease Area	4.20 Ha	2.93.5 ha
7	Precise Area Letter No.	Rc.No.1114/Mines/2021 dated 04.03.2023	Rc.No.742/2020/Mines dated 03.02.2021
8	Production Capacity	10 years - 4,59,165 m ³ of Rough Stone and 1,27,254 m ³ of gravel	220096 m ³ of Rough Stone and 32144m ³ of gravel
9	Method of mining	Opencast mechanized mining	Opencast mechanized mining
10	Lease Period	10 years	10 Years
11	Ultimate Depth	5 years – 24 m 10 years – 34 m	5 years –26m 10 years – 26m
12	Project cost	Rs. 1,85,75,310	Rs. 60,50,000/-
13	CER budget	Rs.5.0 Lakhs	Rs.5.0 Lakhs

The cumulative combined impact anticipated due to mining and allied activities in both the proposed quarries are determined for Air, Noise, Vibration, Water, Logistical, Socio Economic and Land Environment. Details of the same are provided below:

7.6.1 AIR ENVIRONMENT:

The mining and allied activities particularly excavation, hauling, loading and un loading etc. lead to emission of particulate matter. However, effective mitigative measures are provided in the EIA/EMP report to obviate these effects. The cumulative impact on ambient air quality for PM₁₀ and PM_{2.5} due to the operations of both these proposed projects are predicted based on Air Quality Model simulations. The modeling is done for the peak production to know the worst scenario. The cumulative peak Ground Level Concentration (GLC) after effective implementation of various mitigative measures have been computed and given below:



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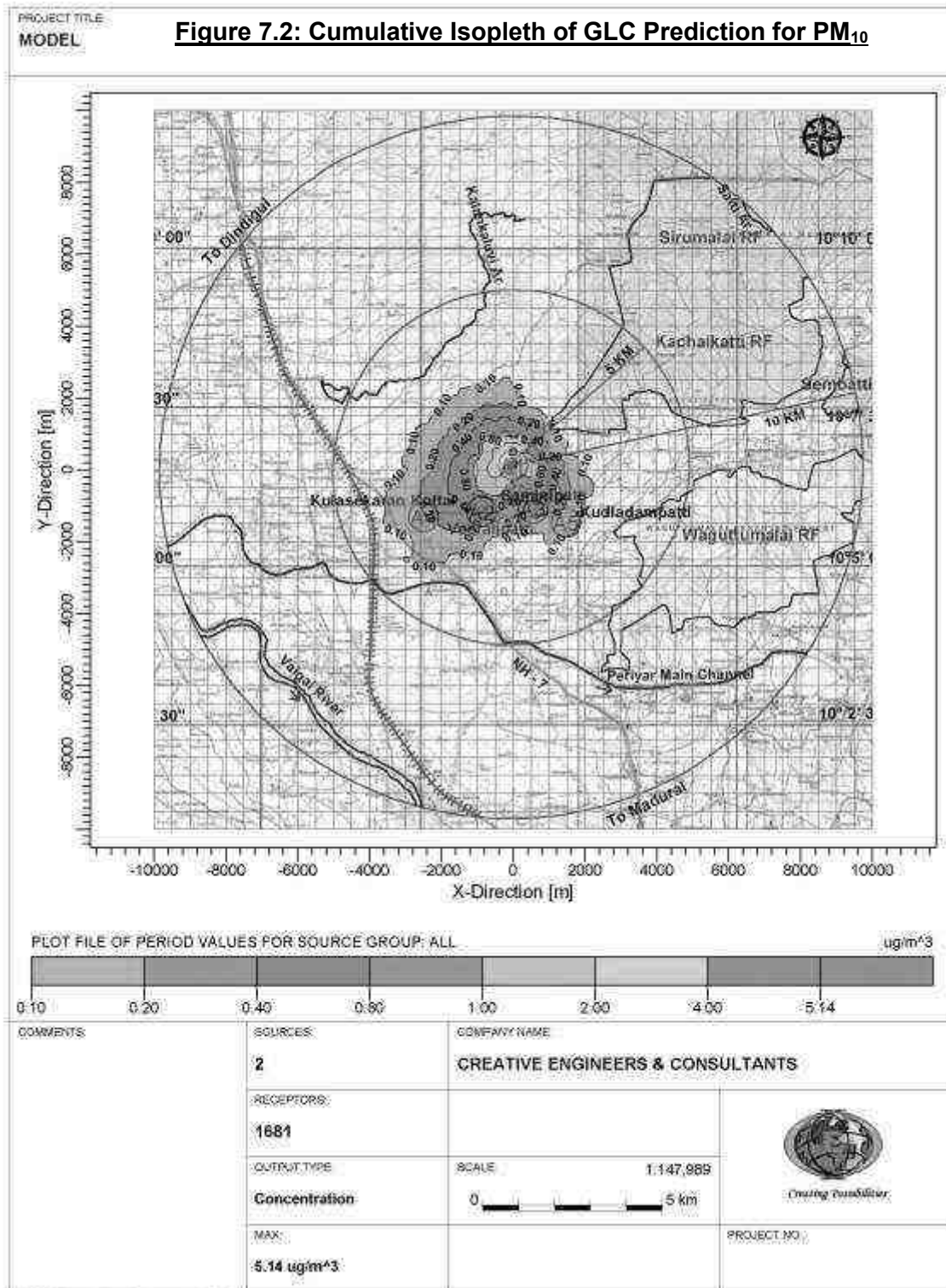
Table 7.3: Cumulative Peak Incremental Concentration

Activity	With Control Measures ($\mu\text{g}/\text{m}^3$)
PM ₁₀	5.1
PM _{2.5}	2.6

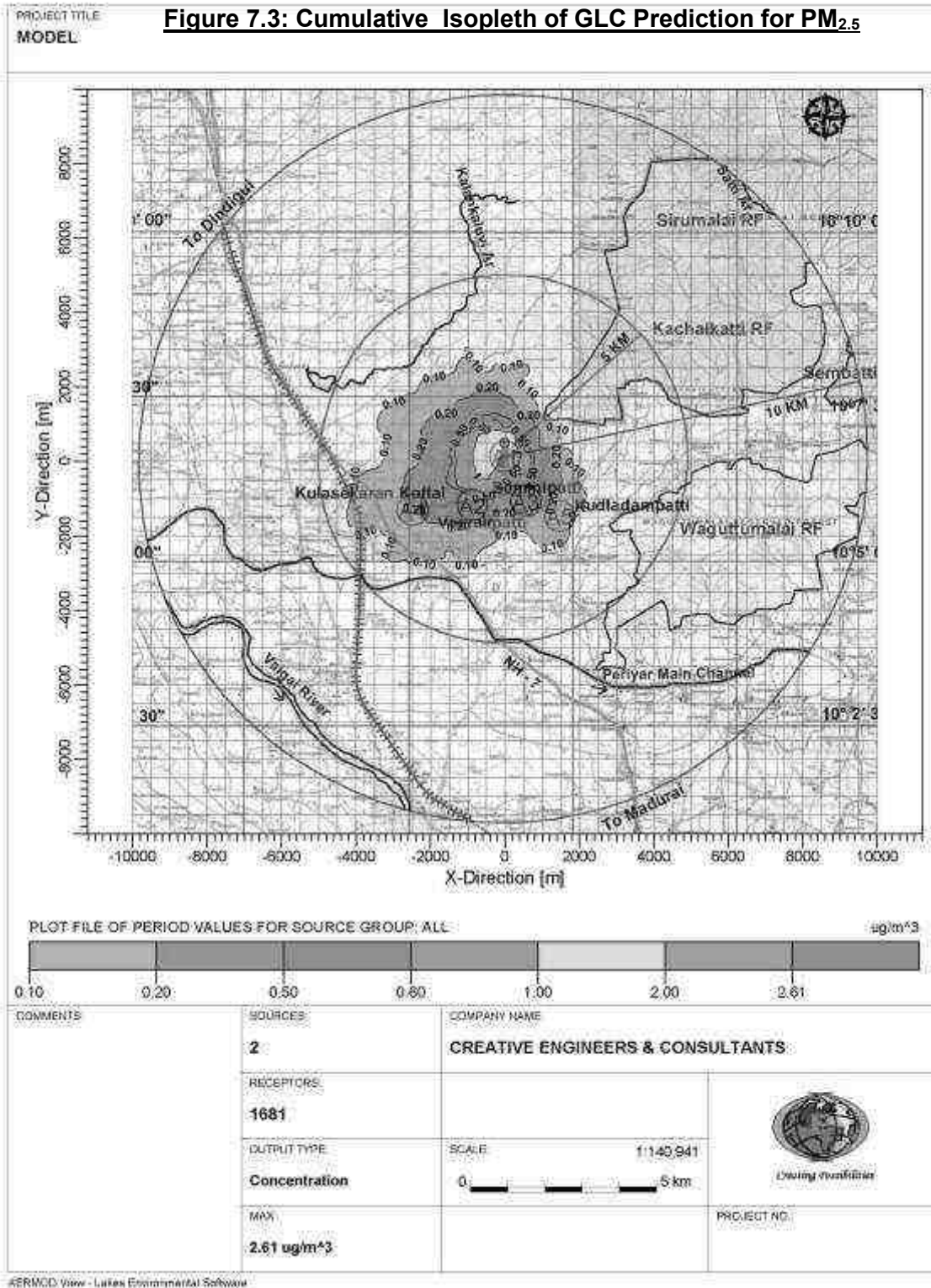
The cumulative Isopleths of PM₁₀, PM_{2.5} concentrations have been drawn and these are given in Figure No – 7.2 to 7.3.



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It is observed that the peak incremental concentration for PM₁₀, PM_{2.5} is occurring very near the source. At away from the source the values are getting reduced due to dispersion effects. The incremental and predicted concentrations at the locations of ambient air quality have been discussed below.

7.6.1.1 PREDICTED AMBIENT AIR QUALITY:

The cumulative combined post project Concentrations of PM₁₀, PM_{2.5}, (GLC) (base line + incremental) after adopting necessary control measures is given below:

Table 7.4: Concentrations of PM₁₀ after Project Implementation

Values in µg/m ³					
S. No	Location	Background Concentration	Predicted Incremental Concentration	Post Project Concentration	Statutory Limits
1	A1-Near Mine Lease Area	50.4	5.1	55.5	-
2	A2-Veerali Patti Village	56.6	<1.0	57.6	100
3	A3-Semini Patti Village	62.2	<1.0	63.2	
4	A4-Kulasekaran Kottai Village	64.3	<1.0	65.3	
5	A5-Kudladampatti Village	58.2	<1.0	59.2	

Table 7.5: Concentrations of PM_{2.5} after Project Implementation

S. No	Location	Background Concentration	Predicted Incremental Concentration	Post Project Concentration	Statutory Limits
1	A1-Near Mine Lease Area	23.8	2.6	26.4	-
2	A2-Veerali Patti Village	25.8	<1.0	26.8	60
3	A3-Semini Patti Village	28.6	<1.0	29.6	
4	A4-Kulasekaran Kottai Village	29.9	<1.0	30.9	
5	A5-Kudladampatti Village	27.2	<1.0	28.2	

It can be seen that the resultant added concentrations with baseline figures even at worst scenario and cumulative impact of the projects show that the values of ambient air quality with respect to PM₁₀ are in the range of 55.5µg/m³ to 65.3 µg/m³ and with respect to PM_{2.5} are in the range of 26.4µg/m³ to 30.9µg/m³ which are within the statutory stipulations in respective case.



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7.6.2 WATER ENVIRONMENT:

The water requirement for all the projects is 15 KLD. Though it may be sourced from outside agencies initially, for these projects it is planned to use the rain water collected in the mine sump later. Groundwater intersection is not envisaged due to both the quarrying operations. Besides, the stage of groundwater development in Vadipatti Taluk based on technical report of the Central Ground Water Board, South Eastern Costal Region – ‘District groundwater brochure, Madurai District.’ is categorized as ‘Safe’ thus proving that there is further scope for groundwater development. Hence, no major impact is expected on groundwater regime due to the cumulative project operations.

7.6.3 NOISE ENVIRONMENT:

Post project noise in the core zone has already been provided under para 4.4, Chapter-IV where it is seen that the predicted Noise Levels due to mining operations at the periphery of the mine lease itself will be less even without considering any attenuation factor. However, practically there will be attenuation due to vegetation etc., and as such there will not be any adverse noise propagation outside the lease boundary. Hence, the cumulative post project noise in the nearby villages has been carried out using the following formula and the results are given below:

$$Lp2 = Lp1 - 20 \log R2/R1$$

Where, Lp1 and Lp2 are sound pressure levels at points located at distances R1 and R2 respectively from the source.

Table 7.6: Post project noise levels

S.No	Location	Baseline Day Eq.in dB(A)	Post project noise Eq in dB(A)	Limit dB(A) as per MoEF&CC
1	Veerali Patti Village	44.0	45.3	55
2	Semini Patti Village	51.1	52.4	55
3	Kulasekaran Kottai Village	50.9	51.6	55
4	Kudladampatti Village	45.5	46.8	55



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7.6.4 VIBRATION:

By Carrying out controlled blasting using Nonel milli second delay detonator, Optimum design for burden and spacing & reducing the explosive charge per delay to minimum in both the projects no adverse impact due to blasting vibration is expected.

7.6.5 TRAFFIC:

The mined out minerals will be transported by means of trucks to the consumers like crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. The cumulative impact on traffic due to transportation of minerals from both these leases are provided below:

Table 7.7: Cumulative number of trips

Details	A.JANAKIRAMAN	S.R. MUTHUPANDI
Maximum Roughstone Transported (m ³ /year)	59,850	51,207.5
No of days in a year	300	300
Transport hours per day	8	8
Truck capacity in T	20	20
Trips per hour	4 Trips/hr	3 Trips/hr

The total trips from these projects there will be hardly about 7 trips per hour. The existing road can absorb this traffic due to this project. Various measures like proper maintenance of road, covering of the loaded truck with tarpaulin, water sprinkling will be carried out to ensure no adverse impact on the logistical front.

7.6.6 LAND ENVIRONMENT:

A.JANAKIRAMAN lease area of 2.93.5 Ha is a patta land. At the end of the post mining stage, 1.50.5 Ha will be mined out area. 0.01.0Ha will be the mine roads, 0.01.0Ha will be infrastructure, Greenbelt and bund over an area of 0.67.0Ha and unutilized area of 0.74.0Ha.

S.R. MUTHUPANDI lease area of 4.20 Ha is a patta land. At the end of the 5 year period, 3.18.0 Ha will be used as mined out area at 24m depth. Subsequently, in the remaining 6th to 10th year there will be only depth ward mining in the same mined out area up to 34 m depth. Ultimately the entire mined out area will be left as water body. 0.08.0 Ha will be the mine roads&

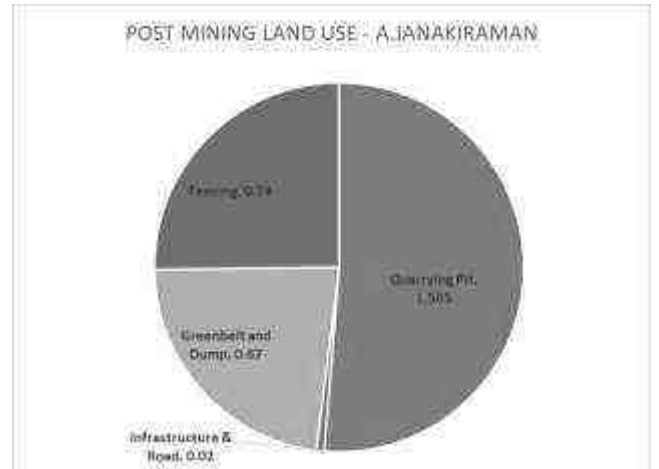
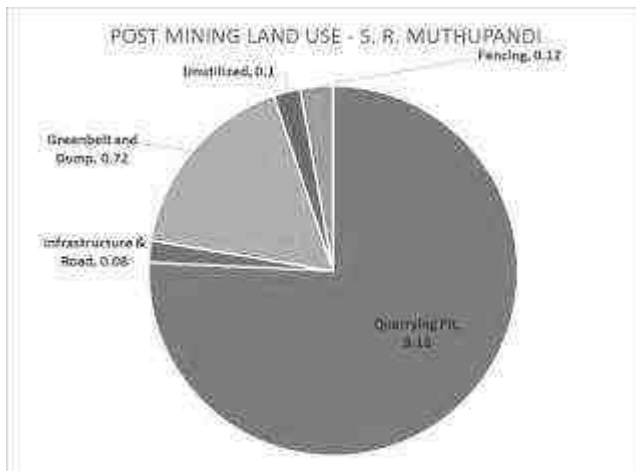


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infrastructure, 0.72.0 Ha will be covered with vegetation, 0.10.0 ha will be undisturbed area and 0.12.0 will be fencing.

For all the projects, in the post mining stage it will be ensured that the entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. The rainwater harvested in the mined-out void shall be utilized to meet the water requirement.

Figure 7.4: Post Mining Land Use



7.7 PIT SLOPE STABILITY PLAN

- Factors affecting slope stability of the mine are
 - Geological structure comprising dip, intervening shear zone formation, clay intrusion, joints / discontinuities, faults etc.,
 - Lithology of formation
 - slope geometry
 - Ground water availability which may cause increased thrust on the faces
- Site specific analysis
 - Since the formation is of homogeneous rock type probability of slope failure is low and can be avoided if proper measures are adopted.
 - There will be a 7.5m wide barrier zone which will form a ridge which can also take care of the top section and as such no risk is envisaged on this front.
 - During future workings the following measures will be ensured:
 - Regular inspection of the mine faces to be carried out by mines manager for ensuring absence of any structural features like faults, joints, dyke, intrusive material in the rock strata which may affect the slope stability and cleared.
 - No loose material or boulders is to be stacked on the mine top or pit benches.
 - Height of the benches should be 5m. Working bench width should be at least 2.5 times the bench height. Ultimate pit bench width will be 5m & slope is kept at 45° to ensure slope stability.
 - Haul road formation will be at 1 in 16 slope with adequate road width.
 - There will be no ground water table intersection. No seepage is expected due to formation. Adequate drainage management system comprising peripheral garland drain, settling pond to regulate monsoon water will be created to prevent saturation of compact layers, apparent drainage over the bench slope to avert damages to quarry face and manage the water flow.

The above will ensure safe and stable mine prospects.



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CONCLUSION:

No adverse impact on the surrounding environment is envisaged from this project due to enforcing all the mitigative measures during mining.

Certified vehicles with low carbon emissions will only be used. These equipment's will be properly and regularly maintained. Besides, regular vehicular emission tests will be done for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, a good greenbelt and plantation plan has been planned wherein 2200 number of plants will be planted in and around the lease area.

Geologically the area in and around the lease area contains charnokite type rock formation containing mostly fallow land. As such there no major vegetation or agricultural activities are observed. There are no Protected or Eco-Sensitive Zone or forest land nearby wherein it can have an impact.

It will be ensured that mining will be carried out adhering to all the statutory rules and regulations, appointing statutory personnel's like qualified mines manager, blaster, informing DGMS before commencement of mining operations and maintaining the environmental quality within the prescribed standards by effective implementation of various mitigative measures.

As such release of Greenhouse gases (GHG), rise in temperature, affecting livelihood of the local people, loss of Agriculture, Forestry and Traditional Practices is not envisaged. Such a limited scope will not induce any climatic change leading to droughts, floods etc.

Mine closure plan plan is prepared for the lease period and already included in the approved mine plan.

Due to absence of perennial water bodies nearby where in any marine ecosystem is observed, no effect on this front is also expected. Hydrological investigation carried out and as given in Para 3.6 of Chapter III & para 4.3 Chapter – IV shows that the all-time ground water table in this area is much below the mining level. Hence, ground water intersection in not envisaged for the entire life of the mine and ground water will not be affected due to the quarrying operation. As such there will not be any adverse impact on the ground water regime. Besides, this being a mining project, there will be not be any process effluent. As mentioned earlier, the rainfall will be



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collected in the mine floor sump and gainfully used as per CGWA requirement. Excess water if any in the sump will be pumped to settling pond and supernatant clear water let out for downstream users.

It will be ensured that mining will be carried out adhering to all the statutory rules and regulations, appointing statutory personnel's like qualified mines manager, blaster, informing DGMS before commencement of mining operations and maintaining the environmental quality within the prescribed standards by effective implementation of various mitigative measures for the entire lease period.

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CHAPTER 8 PROJECT BENEFITS

The proposed Rough stone and Gravel Quarry of Thiru. S.R. Muthupandi will improve physical and social infrastructures in the area like:

- Direct employment to 18 people.
- Indirect employment to scores of people.
- Financial gains for the governments, through collection of various taxes like royalty, GST, etc.,
- Increase in General Awareness of the People.
- Continual improvements of the local amenities for the local society
- Improvement of the General Living Standard of the People in the Vicinity
- Overall Improvement in HDI (Human Development Index)
- Growth of Allied Industries in the Area.
- Improvement in Per Capita Income.
- Providing certain facilities for the local schools and panchyats

In short, the proposed Rough Stone & Gravel Quarry will benefit this region in the fields of employment opportunities, improved per capita income for local people, and improved social welfare facilities in respect of education, medical systems, infrastructural build-up, etc in its own way.

By means of carrying out the socio-economic development activities, local community development is expected. Towards the same, the proponent has planned to allocate Rs.5.0 Lakhs for various activities under CER. From the CER activities allocated for various social welfare activities, the villages near the lease area will be benefited.

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CHAPTER 9

ENVIRONMENTAL COST BENEFIT ANALYSIS

Appendix-III of the MoEF notification S.O. 1533 dated 14.09.2006, which describes the generic structure of Environmental Impact Assessment document, states that the chapter ' Environmental cost benefit analysis' is applicable if it is recommended during scoping stage.

ToR for this project has been received from SEIAA, Tamil Nadu vide their letter No. SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023 dated 27.09.2023. Environmental cost benefit analysis is not prescribed in the terms of reference. Hence, it is not applicable for this project.

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CHAPTER 10

ENVIRONMENTAL MANAGEMENT PLAN

10.1 INTRODUCTION:

This chapter describes the implementation strategies of the environmental management measures described through the course of this EIA/EMP report for the purpose of mitigating significant impacts due to the proposed mining operations.

10.2 COMPONENTS OF THE ENVIRONMENTAL MANAGEMENT PLAN:

The environmental management plan comprises identification of the major impacts due to project operations and their suitable mitigative measures. (Provided in an elaborate manner in Chapter-IV) Based on the environmental policy of the company, the environmental management cell will oversee the implementation of these mitigative measures. The details of the proponent's environmental policy, environmental management cell and also the budgetary allocation towards various environmental management measures has been elaborated in this chapter.

10.2.1 ENVIRONMENTAL POLICY:

The proponent will frame a well-planned environmental policy. The salient features of this policy will be.

- ❖ Ensuring risk-free and safe mining operations by following all rules and conditions prescribed in the Indian mines Act, metalliferous mining regulation, mineral conservation and development rules, etc,
- ❖ Ensuring environmental preservation by adoption of remedial measures for control of air, water quality, noise status, biological improvements, green belt creation, etc,.
- ❖ Extending CER activities to cater to the needs of local community for various benefits like improvement of physical and social infrastructures for the welfare of local community.



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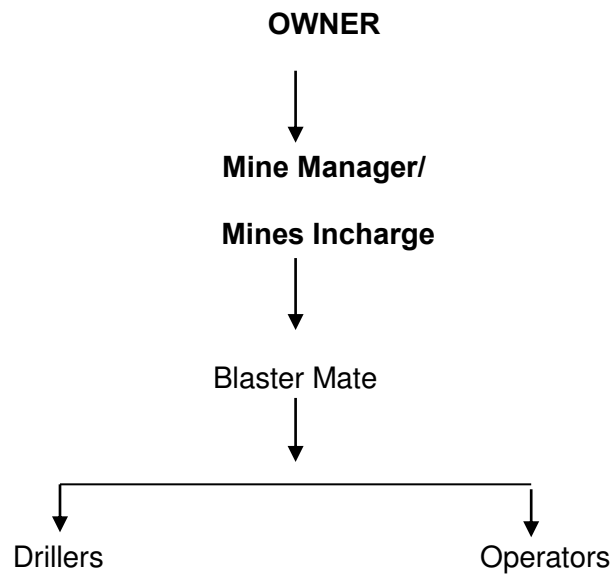
- ❖ Ensuring that all mining operations such as deployment of HEMM, conduct of drilling and blasting operations, etc are strictly conducted keeping with regulatory standards & maintaining safe working environment in the area.
- ❖ Providing periodical training on safety, Health, & Environment to all employers.
- ❖ Any infringement / violation of any rule or unsafe mining operations should be reported mines manager, should be reported by the foremen/ blaster mate etc, who will take immediate corrective measures for avoiding major disasters. The report will ultimately reach the owner through upwardly hierarchical communicative channels from the lowest level to superior levels in a quick time bound duration.
- ❖ The mines manager will exercise overall control over entire mining and connected operations and all infringements / violations on any count pertaining to unsafe operations, environmental degradation, etc, should be brought to the notice of the owner of the quarry. Remedial measures for such violations and deviations should be taken care by the mines manager to avoid any hazards or disasters in the mine and nearby areas. The persons responsible for such violations will be punished through appropriate disciplinarily penal actions.
- ❖ The EC conditions and stipulations will be strictly observed by Mines manager of the mine in various issues like prescribed environmental monitoring schedules conducting of vibratory studies due to blasting, creation of green belt, management of mined area, occupational health review, etc.
- ❖ Penalty actions will be taken by the proponent in cases of continuous negligence resulting in violations deviations in this respect.
- ❖ A time schedule of once in 90 days for review of all operational factors as mentioned above is to be enforced, for proper and quick corrective actions needed in the matter.



10.2.2 ENVIRONMENTAL MANAGEMENT CELL:

The Mines Manager/Mine Incharge will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine. The organizational chart for the same has been provided below:

Figure 10.1: Organization Chart



The Mines Manager/Mines In charge in the mine project site will be directly responsible for various environmental activities in the mine. The owner will correlate and oversee the environmental activities and their effective implementation in consonance with the guidelines in the EMP. The Mines Manager/Mines In charge will oversee the environmental administration at the mine and he will directly supervise all activities of environmental administration on environmental issues. Necessary assistance from sub ordinates, external consultants and laboratories shall be taken.

Environmental control measures will span various factors like land degradation, air, water and soil quality, noise levels, effective land reclamation for excavated areas, afforestation measures, etc. The administrative functions are given below.



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- ❖ To observe the implementation of environmental control measures.
- ❖ To study the effects of project activities on the environment.
- ❖ To ensure implementation of Plantation Programme. Regular monitoring of survival rate of plants is carried out to achieve the desired result.
- ❖ To keep records of monitoring etc., in a systematic way, so as to facilitate easy access, when needed by statutory agencies, etc. Also send prescribed returns to statutory authorities.
- ❖ To ensure that adequate fencing and plantation is carried out in the safety zones.
- ❖ Conducting environmental studies and reporting to SPCB.
- ❖ To interact and liaise with Government Departments.
- ❖ To evaluate the performance of existing pollution control equipment and systems periodically and take timely action to keep the equipment at its optimum performance condition.
- ❖ To take immediate preventive action in case of some unforeseen environmental pollution attributable to the project.
- ❖ Conducting safety audits and programmes to create safety awareness in workers/ staff.
- ❖ Conducting annual health audits to detect any health problems promptly in the workers/staff. This will reduce occupational health problems.
- ❖ Imparting training on safety and conduct safety drills to educate employees. Firefighting equipment and system has to be kept in 'ready-to-fight' condition.
- ❖ Carrying out socio economic study in the surrounding areas to find out the benefits derived by the society due to the project and also to fulfill the deficiency, if any, immediately.
- ❖ Ensuring proper mine closure arrangements



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Considering the other mines in the cluster, the Environmental Management Cell of this project will also act as a Cluster Management Committee. The various activities undertaken to be undertaken by this committee are detailed below:

- Effective implementation of the environmental management measures in a holistic manner
- Devising an operation plan for mining and transportation activities.
- Various natural calamities like rain, flooding, evacuation plans etc. will also be deliberated by this committee to form risk management and emergency management plan pertaining to the cluster.
- The environmental policy of the company will be implemented and proper sustainable mining in accordance with statutory regulations will be enforced for the quarries in the cluster.
- Furnishing action plan regarding restoration strategy
- Deliberate on the health of the workers involved in the mining and also the health of the public
- Carrying out detailed study on the impact of mining on:
 - Soil health & biodiversity
 - Climate change leading to droughts, floods, etc.
 - Pollution leading to release of greenhouse gases (GHG) rise in temperature and livelihood of local people
 - Possibilities of water contamination and impact on aquatic ecosystem health.
 - Agriculture, Forestry & Traditional practices.
 - Hydro geothermal /Geothermal effect due to destruction in the Environment.
 - Bio-geochemical process and its footprints including environmental stress.
 - Sediment geochemistry



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- Furnishing action plan to achieve sustainable development goals with regards to water, sanitation and safety.
- Furnishing fire safety and evacuation plans in case of fire accidents.
- Implementation of steps to effectively utilize energy.

10.2.3 ENVIRONMENTAL MANAGEMENT PLAN:

10.2.3.1 General:

Systematic monitoring systems and well-conceived and efficient Environment Management Plan will ensure that during the project operations, the various environmental parameters, are well within the statutorily sustainable limits. The environmental control measures proposed to keep various environmental parameters of the project in terms of air, water, noise, land, biological environment, etc. has been described below.

10.2.3.2 Air Quality:

With regards to air quality, to mitigate the fugitive and gaseous emission resulting from mining and allied activities, the following control measures are proposed to be undertaken:

- Regular water sprinkling in the transport roads using mobile tankers for dust suppression.
- Controlled blasting techniques with NONEL.
- Provision of dust filters / mask to workers working at highly dust prone and affected areas.
- Covering of drill holes with wet cloth, using sharp drill bits
- Avoiding blasting during high wind periods where the fine dust is carried out away easily affecting the ambient air quality.
- Proper maintenance of haul roads, HEMM and dumpers.
- Covering of loaded tippers with tarpaulins during transportation



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- Vehicular emissions will be controlled through regular and proper preventive maintenance schedules and emissions tests are done with diesel smoke meter equipment to ensure emission values.
- Besides, there will be good green belt cover will be developed around mine periphery and in safety zone.
- Green netting will be carried out around the lease periphery on all sides.

10.2.3.3 Water Environment:

There will be no process effluent generated from this project. The domestic sewage to be generated will be collected in septic tank with soak pit arrangements. Besides, there will be no waste dumps or stockpiles within the lease area as the entire material will be directly despatched to the consumers.

Surface runoff management structures such as garland drain connected to 2 settling ponds one on the SW corner and another in the NE corner with silt traps will be constructed around the quarry to collect the rain water. The supernatant clear water from the settling pond will be provided to nearby downstream users. Towards rainwater harvesting, the rainwater harvested in the mine will be used to meet the water requirements during mining and excess water in consultation with villagers and in line with government practices will be out in to the nearby stream or shall be distributed to the nearby villages as per their need.

There is a seasonal odai located adjacent on the eastern and western side of the lease for which 10m safety distance has been left. This is more of a rainwater carrying channel drains water from the northern hilly terrain. It remains dry for most of the season. Earthen bund will be formed within the lease area in the safety zone as a protective barrier and it will be planted. There is no proposal to discharge any effluent into this water body. No major impact is envisaged on the nearby water bodies due to project operations



10.2.3.4 Noise Environment:

During the project operations, various control measures as listed below will be carried out to mitigate adverse impact due to the noise generated due to mining and allied activities:

- Good plantation will be carried out in the safety zone areas
- Noise protectors, insulation of operator cabins, installation of silencers in machineries, etc.
- Proper and regular maintenance of equipment's
- Providing earplugs to workers exposed to higher noise level.
- Providing in-built mechanism for reducing sound emissions.
- Conducting regular health check-up of workers including Audiometry test for the workers engaged in noise prone area.
- Displaying the noise level status of operational machinery on the machines to know the extent of noise level and to control the time to which the worker is exposed to higher noise levels.

10.2.3.5 Ground Vibration

During the project operations, various control measures as listed below will be carried out to mitigate adverse impact due to the ground vibration caused due to blasting activities:

- ❖ Controlled blasting techniques to maintain the peak particle velocity (PPV) below DGMS prescribed levels.
- ❖ Ideally formulating drilling and charging pattern and ensuring using less charge per delay.
- ❖ To contain fly rocks, stemming column will not be less than burden of the hole. Blasting area will also be muffled, if necessary, to stop fly rocks propagation.
- ❖ Blasting will not be carried out when strong winds are blowing towards the inhabited areas. Blasting will be done during midday time and never at night.
- ❖ Proper care and supervision during blasting by a competent and experienced person.



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- ❖ Besides, different blasting time for the projects in the vicinity is suggested and the timing is to be mentioned in the display board in the respective mines entrance.

Further details regarding the same has been provided under section 4.4.2, Chapter-IV.

10.2.2.6 Biological Environment:

The mining lease area and 10km buffer zone are devoid of declared ecologically sensitive features such as national parks, sanctuaries etc. Besides, no Schedule-I animals are observed in the core and buffer zone. There will be no major clearance of vegetation involved in this project. However, good greenbelt and plantation programmes are planned within the lease area.

In the lease area, safety barrier 7.5m & 10m around the periphery and 10m safety zone for the Odai on the eastern side of the lease area. About 2200 trees will be planted in and around the lease area. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area. This will boost the biological, visual and aesthetic outlook of the area. Elaborate details regarding the same is provided under section 4.6.4, Chapter-IV.

10.2.2.7 Socio-Economic Environment:

The proposed project operation will provide positive impacts in the region on the employment area as well as on physical and social infrastructural status. Many other tangible benefits will be gained by the local people in the surrounding areas due to ancillary units, trading operations, contractual needs, casual labor, green belt development, etc. Towards the socio economic development of the surrounding area, the proponent has earmarked an amount of Rs.5.0 Lakhs under Corporate Environmental Responsibility. The activities identified under CER will be implemented in a phased manner.

10.3 ENVIRONMENTAL POLLUTION CONTROL COST:

In this proposed quarry Implementation of environmental control measures as stated above involves capital as well as recurring expenses. The probable capital and recurring environmental control cost are calculated and given below **Table No – 6.5**



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Table 10.1: Environmental Control Cost

		Rs. In lakhs	
Sl. No	Mitigation Measure	Capital cost in Lakhs	Recurring Cost / Annum in lakhs
Air Environment			
1	Compaction, gradation and drainage on both sides for Haulage Road	0.11	0.11
2	Water Sprinkling Arrangements	8.00	1.00
3	Air Quality will be regularly monitored as per norms within ML area & Ambient Area	0.00	0.50
4	Muffle blasting – To control fly rocks during blasting	0.00	0.10
5	Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit	0.25	0.03
6	No overloading of trucks/tippers/tractors-Manual Monitoring through Security guard	0.00	0.05
7	Stone carrying trucks will be covered by tarpaulin	0.00	0.10
8	Enforcing speed limits of 20 km/hr within ML area-Installation of Speed Governors	0.10	0.00
9	Regular monitoring of exhaust fumes as per RTO norms	0.00	0.05
10	Regular sweeping and maintenance of approach roads for at least about 200 m from ML Area	0.00	0.22
11	Installing wheel wash system near gate of quarry	0.50	0.20
Sub-Total (A)		8.96	2.36
Noise Environment			
12	Source of noise will be during operation of transportation vehicles, HEMM- For this proper maintenance will be done at regular intervals.	Will be part of Operating Cost	
13	Oiling & greasing of Transport vehicles and HEMM at regular interval will be done		
14	Adequate silencers will be provided in all the diesel engines of vehicles.		
15	It will be ensured that all transportation vehicles carry a fitness certificate.		
16	Safety tools and implements that are required will be kept adequately near blasting site at the time of charging.	Provision made in OHS part	
17	Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Will be part of Operating Cost	
18	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		



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Sl. No	Mitigation Measure	Capital cost in Lakhs	Recurring Cost / Annum in lakhs
19	Provision for Portable blaster shed	0.5	0.02
20	NONEL Blasting will be practiced to control Ground vibration and fly rocks		6.40
Sub-Total (B)		0.50	6.42
Water Environment			
21	Surface Runoff Management Structures	0.42	0.05
Sub-Total (C)		0.42	0.05
Implementation of EC, Mining Plan & DGMS Condition			
22	Waste management (Spent Oil, Grease etc.,)-Provision for waste collection and disposal through authorized agency	0.25	0.20
23	Installation of dust bins	0.05	0.02
24	Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN	0.10	0.01
25	Workers will be provided with Personal Protective Equipment's	0.72	0.18
26	Health check up for workers will be provisioned-IME & PME Health check up	0.00	0.18
27	First aid facility will be provided	0.00	0.17
28	Mine will have safety precaution signages, boards.	0.10	0.02
29	Barbed wire fencing	8.40	0.10
30	No parking will be provided on the transport routes. Separate parking area will be provided. Flaggers will be deployed for traffic management	2.10	0.10
31	Installation of CCTV cameras in the mines and mine entrance-Camera 4 Nos, DVR, Monitor with internet facility	0.30	0.05
32	Remuneration of statutory persons	0.00	7.80
Sub-Total (D)		12.02	8.83
Green Belt Development			
34	Plantation Inside the lease area(820Nos.)	1.64	0.25
35	Plantation Outside the lease area (1280 Nos.)	3.84	0.38
Sub-Total (E)		5.48	0.63
Grand Total		27.38	18.29

Towards EMP measures, Rs.27.38 Lakhs is allocated under capital cost. Besides, Rs.18.29 Lakhs per annum will be spent under recurring cost. All the recurring cost of maintenance of pollution control measures, environmental monitoring etc., will be met from revenue and will be spent for the entire lease period.



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10.4 CONCLUSION:

A meticulously well planned Environmental Management Plan, with various programme schedules and timely execution objectives, as above, will ensure that the future environmental quality in the area will be maintained within statutory limits. The environmental management strategy as explained above will prove that industrial growth, if properly planned with all environmental concerns and appropriate remedial measures can go a long way to improve life pattern and living conditions of the local community around the project.

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CHAPTER 11

SUMMARY & CONCLUSION

11.1 INTRODUCTION:

Thiru. **S.R. Muthupandi** proposes to operate a Rough Stone and Gravel Quarry over an area of **4.20.0** Ha in Viralipatti village, Vadipatti Taluk, Madurai District, and Tamil Nadu and has initiated action towards obtaining environmental clearance.

Proposed Production for the first five years is 2,42,675m³ of Rough stone and 74,060 m³ of gravel for the depth of 24 meter. The Total production for 10 years lease period is 4,59,165 m³ of Rough Stone and 1,27,254 m³ of gravel for the depth of 34 meter. Entire lease area is Patta land, partly owned by the applicant and for the remaining, applicant got consent from other Pattadars

Although the individual lease area of this project is less than 5 Ha, the other existing and proposed quarries within the 500m radius cluster along with this subject project works out to >5 Ha. Hence, this proposal is considered under Category – B1 and as per MoEF & CC notification necessitates preparation of EIA/EMP report and public hearing.

This EIA/EMP report is prepared based on standard and additional Terms of Reference issued by SEIAA, Tamil Nadu vide letter no. **SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023** dated **27.09.2023** and is in conformance of the generic structure prescribed by MOEF&CC in their notification of September 2006 and the approved mining plan.

11.1.1 STATUTORY APPROVALS:

S.No	Statutory Approval	Authority	Letter Number and Date	Reference
1.	Precise Area Communication Letter	Assistant Director, Dep. of Geology & Mining	Rc.No.1114/Mines/2021 dated 04.03.2023.	Annexure-1
2.	Mining Plan Approval	Assistant Director, Dep. of Geology & Mining	Rc.No.1114/Mines/2021 dated 21.03.2023	Annexure-2
3.	Details of other quarries within 500m radius	Assistant Director, Dep. of Geology & Mining	Rc.No.1114/Mines/2021 dated 21.03.2023	Annexure-3



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11.1.2 ENVIRONMENTAL CLEARANCE APPLICATION:

Particulars	Details
Terms of Reference	Received from SEIAA, Tamil Nadu vide their Lr No. SEIAA-TN/F.No.10229/SEAC/ToR-1546/2023 dated 27.09.2023
Baseline Data Collection	Carried out by Creative Engineers & Consultants , Chennai for Summer Season (March 2023 – May 2023)

11.2 SALIENT FEATURES OF THE PROJECT:

Table 11.1: Site Details

Location	Viralipatti village, Vadipatti Taluk, Madurai District, Tamil Nadu
Survey No.	84/2C1,2D1,2E1, 2C2,2D2A,2E2, 2J,2K,2L
Coordinates	Latitude: 10° 06' 27.2" to 10° 06' 40.1" N Longitude: 77° 58' 51.5" to 77° 59' 00.06" E
Nearest Village	Seminipatti -1.1Km
Nearest Town	Thirumangalam – 13 km - NW
Nearest Highway	(NH-7) - 2.0 Km– (SW)
Nearest Railway Station	Vadipatti – 5 Km- (SW)
Nearest Airport	Madurai- 35km – (SE)
Accessibility	The applied area can be easily accessible Viralipatti at a distance of 28Kms from Madurai to Dindigal road, and then to the applied area at a distance of 2Km towards northeast of Viralipatti
Topography	Plain terrain, dry lands with scarce vegetation.
Drainage	Drainage of the area is controlled by various first order streams which finally drains in to vaigai river on the south of the lease area.

Table 11.2: Environment Setting of The Study Area

S.No	PARTICULARS	DETAILS
1	Nearest highway	(NH-7) - 2.0 Km– (SW)
2	Nearest Railway station	Vadipatti – 5 Km- (SW)
3	Nearest Airport	Madurai- 35km – (SE)
4	Nearest major water bodies	Kalankaluvi Ar – 3.5km – NW, Satti Ar – 9.8km – NE, Vaigai River – 8.6km – SW, Periyar Main Canal – 3.5km – SW.



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S.No	PARTICULARS	DETAILS
5	Nearest town/City	Thirumangalam – 13 km - NW
6	Nearest villages	Seminipatti -1.1Km (SE)
7	Notified Archaeologically important places, Monuments	Nil within 10km radius
8	Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	Nil within 10km radius
9	Reserved / Protected Forests	<ul style="list-style-type: none"> ➤ Reserve Forest-0.5 Km-N ➤ Kachaikatti RF – 1.4km – NE, ➤ Sembatti RF - 8.9km – E, ➤ Waguttumalai RF - 3.4km – SE, ➤ Sirumalai RF – 6.2km – NE
10	Defence Installations	Nil within 10m radius
11	Seismic Zone	Zone – II (Least Active)
12	Other Industries in the study area	Other than rough stone quarry & crushers there are no other major industries in the area.

Table 11.3: Technical Description

PARTICULARS	DETAILS		
Geological reserve	14,25,569 Cu.m.		
Mineable reserve	5,86,419 Cu.m.		
Method of Mining	Open cast mechanized mining method with drilling, blasting, excavation, loading and transportation of Rough stone to needy buyers.		
Production	Year	GRAVEL(m3)	ROUGHSTONE (m3)
	I	16100	42875
	II	14490	49950
	III	14490	49950
	IV	14490	49950
	V	14490	49950
	First 5 Year Total	74,060	2,42,675
	2nd 5 year Total	53,194	2,16,490
	10Year Total	1,27,254	4,59,165



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PARTICULARS	DETAILS
Waste Generation and Management	There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. The Gravel will be loaded into tipper and marketed to needy customers on payment of necessary Fees to Government. The excavated rough stone will be excavated and loaded into tipper to the needy buyers for producing crusher aggregates, M Sand.
Ultimate Depth	34 m
Man power	18 People directly and more than 50 people indirectly
Mode of transport	By Road
Water requirement	10 KLD
Source of water	The required water will be procured from outside agencies initially. Later, water collected in the mine pit will be used to meet the needs.
Power requirement	All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc will be met from state grid.
Life of the mine	10 Years
Project cost	Rs. 1,85,75,310 /- (Including operational + Fixed Asset + EMP cost).

11.3 EXISTING ENVIRONMENTAL SCENARIO:

11.3.1 GENERAL:

The studies and data collection have been carried out systematically and meticulously as per relevant IS codes, CPCB and MoEF&CC guidelines and as per approved ToR during **Summer Season (March 2023 – May 2023)** For the purpose of this study, the area has been divided into two zones, namely, core and buffer zones. Core zone is considered as the total lease area, while buffer zone encompasses an area of 10 km radius distance from the periphery of core zone.



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11.3.2 SOCIO-ECONOMIC STATUS:

The proposed Roughstone and gravel quarry is located in in Viralipatti Village, Vadipatti Taluk, Madurai District, and Tamil Nadu. The details of the 10Km radius study area has been provided below:

Table 11.4: Social, Economic and Demographic Profile of the Study Area

Details	Population	Percentage
A. Gender-wise distribution		
Male Population	105207	50.04
Female Population	105040	49.96
Total	210247	100
B. Caste-wise population distribution		
Scheduled Caste	53765	25.57
Scheduled Tribes	1227	0.58
Other	155255	73.84
Total	210247	100
C. Literacy Levels		
Total Literate Population	143635	68.32
Others	66612	31.68
Total	210247	100
D. Occupational structure		
Main workers	84756	40.30
Marginal workers	21582	10.30
Total Workers	106338	50.60
Total Non-workers	103909	49.40
Total	210247	100

11.3.2.1 SAMPLE SURVEY:

Nearby villages were visited for conducting sample Village survey on all socio-economic aspects and requirements of the people. The existing socio-economic scenario is studied and CER activities are also suggested to the proponent. The study details are given in **Para 3.2.4, Chapter – III.**



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11.3.3 EXISTING ENVIRONMENTAL QUALITY:

Table 11.5: Baseline Data

A) METEOROLOGICAL DATA			
PARAMETERS	MINIMUM		MAXIMUM
Temperature in °C	13.7		40.0
Humidity in %	17.0		99.0
Wind speed Km/Hr	<1.8		31.0
Predominant wind direction (From)	E,		
B) AMBIENT AIR QUALITY			
Monitoring Location – 5 locations			
PARAMETER	RESULT (µg/m³)		*LIMIT (µg/m³)
Location	Core Zone	Buffer Zone	
Particulate Matter (Size <10 µm)	40.4-50.4	42.8-64.3	100
Particulate Matter (Size <2.5 µm)	20.6 – 23.8	21.2 – 29.9	60
Sulphur Dioxide (as SO ₂)	4.1– 6.4	4.2– 6.9	80
Nitrogen Dioxide (as NO ₂)	7.9-10.2	8.2 -12.7	80
Conclusion: The existing Ambient Air Quality levels for PM10, PM2.5, SO ₂ and NO ₂ , are within the NAAQ standards prescribed CPCB limits of 100 µg/m ³ , 60 µg/m ³ , 80 µg/m ³ & 80 µg/m ³ . The CO values in all the locations were found to be below detectable limit. Silica values in the study area are found to be below detectable limit. (Detection limit – 0.05 mg/m ³)			
C) WATER QUALITY			
Monitoring Location – 4 locations			
PARAMETER	Result		*LIMIT (µg/m³)
pH at 25 °C	7.59 – 7.98		6.5-8.5
Total Dissolved Solids, mg/L	425 – 802		2000
Chloride as Cl ⁻ , mg/L	118 – 390		1000
Total Hardness (as CaCO ₃), mg/L	227 – 338		600
Total Alkalinity (as CaCO ₃), mg/L	194– 274		600
Sulphates as SO ₄ ²⁻ , mg/L	45.7 – 138		400
Iron as Fe, mg/L	0.03 – 0.07		0.3
Nitrate as NO ₃ , mg/L	2.68 – 4.56		45
Fluoride as F, mg/L	0.36 – 0.55		1.5
Conclusion: The water quality of ground water is found to be within the prescribed Permissible limits of			



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IS: 10500 Norms in the absence of an alternative source as per Drinking Water Specifications.

D) NOISE LEVELS

Monitoring Location – 5 locations

PARAMETER	RESULT dB(A)		*LIMIT (µg/m3)
	Day Equivalent	Night Equivalent	
Core Zone	45.2	40.0	90
Buffer Zone	44.0 – 51.1	40.1 – 41.9	Day Equivalent - 55dB(A), Night Equivalent - 45dB(A)

*Permissible noise for industrial workers as laid down by CPCB (at 8 hrs Exposure Time). While comparing with the MoEF&CC Norms, the monitored ambient noise levels are generally within the limit values.

E) SOIL QUALITY

Monitoring Location – 3 locations

PARAMETER	Range of values
pH	6.85 to 7.18
Electrical Conductivity (µmho/cm)	38.95 – 65.42
Organic matter (%)	0.72 – 1.32
Total Nitrogen (mg/kg)	150 - 234
Phosphorus (mg/kg)	1.44 – 2.09
Sodium (mg/kg)	345- 420
Potassium (mg/kg)	645 - 780

Soil is of Loam type.

F) LAND ENVIRONMENT:

For the present study on land use pattern in the study area, remote sensing satellite data have been used. The area estimated of land use categories around the 10km buffer zone is provided below:

Table 11.6: Land Use in 10Km Buffer Zone

S.No	Landuse Feature	Area (Sq.Km)	Percentage
1	Crop Land / Plantation	54.79	16.84
2	Fallow Land	23.58	7.25
3	Land With Scrub	75.51	23.21
4	Land Without Scrub	2.12	0.64
5	Scrub Forest	108.23	33.27
6	Industrial area	0.33	0.10



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7	Settlement & Infrastructure	55.03	16.92
8	Water bodies	2.54	0.78
9	Mining Area	3.04	0.93
	Total	325.21	100

From the above table it is seen that 16.84 % of the study area is agriculture land and 7.25 % are fallow land. Land with scrub constitutes 23.21 %, lands without scrub constitute 0.64 %, Scrub forest constitute 33.27 % and waterbodies constitute 0.78 % & others constitute 2.45 %.

G) BIOLOGICAL ENVIRONMENT:

Flora: The lease area is a non-forest, private land. Major part of lease area is barren fallow land with bushes (Prosopis juliflora) and grasses. The detailed list of plants found in the core zone are given in Table no – 3.24. The Dominated species in the buffer zone are Borassus flabellifer, Acacia nilotica, Acacia auriculiformis, Acacia leucophloea Azadirachta indica, Prosopis juliflora, Albizia lebbeck, etc. The detailed list of plants found in the Bufferzone is given in Table no – 3.25.

Fauna: There is no Wild Life Sanctuary or National Park within the study area of 10 km. Domesticated animals like Cows, Buffalos, Dogs, Cats etc., are commonly found. The lease and 10 Km buffer zone does not fall in the Western Ghats ESA boundary. No wild mammalian species was directly sighted during the field survey. There is no Schedule I species in the core & buffer zone. The list of fauna within the study area is given in Table No – 3.27.

H) HYDROLOGICAL STUDY:

The area applied for mining lease is a gentle plain terrain and dry lands without any vegetation. The gravel formation is having thickness of 2m. The rocks in this area belonging to ARCHEAN group of rocks. Below the gravel formation a hard Rough stone Charnockite is noticed. The rocks are Phaneric to medium grained nature. And in these rocks there are mineral constituents of Blue Quarts, Micro Cline Feldspar, Hypersthene and flakes of Biotite Mica. The rocks are striking towards North west – South east direction dipping 80° Vertical towards South east direction



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The general trend of depth to water level for Vadipatti Block, Madurai District, Tamil Nadu the was obtained from the data obtained from India-WRIS, Department of Water Resources, Ministry of Jal Shakti.

In the study area, wells and bore wells were studied which indicate that shallow aquifer is developed through dug wells and deeper aquifer through tube wells. The groundwater has revealed that potential fractures are encountered at deeper levels. Rain water collected in the tanks in the region acts as a good source of water during post monsoon. The water in the wells are available mainly after post monsoon and it reduces during summer.

The occurrence of groundwater mainly in the porous soil are weathered layers, very negligible amount of groundwater percolated through the poorly fractured layer, after that there is no existence of groundwater. Besides, the mining area consists of hard compact rock, no major water seepage within the mine is expected. From the nearby working mines, no such seepage is also observed.

11.4 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES:

11.4.1 GENERAL:

This is a proposed project and Mechanized Open Cast mining will be carried out to quarry out Rough Stone & Gravel. The identified impacts due to this mine during mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc.

11.4.2 AIR ENVIRONMENT:

The principal sources of air pollution in the area due to mining and allied activities are dust generation in the mine due to various activities such as excavation of material, movement of HEMM, loading, unloading and transportation operations.. Besides, Gas emission also occur as a result of emission of SO₂, NO_x, CO etc., from diesel driven mining equipment, compressors, generator sets, etc. The following measures will be adopted to control impact on the air quality due to mining operations in the lease area:



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Table 11.7: Mitigation Measures – Air Environment

S.No	Activity	Mitigation Measures
1	Drilling	Usage of Drill bits in good condition
		Covering of drill holes with wet cloth
		Usage of sharp drill bits for drilling of holes.
		Provision of dust filters / mask to workers working at highly dust prone and affected areas.
2	Blasting	Well-designed blasting parameter, effective stemming to achieve optimum breakage occurs without generating fines.
		Use of appropriate explosives for blasting and avoiding overcharging of blast holes.
		Avoiding blasting during high wind periods where the fine dust is carried out away easily affecting the ambient air quality.
		Use of controlled blasting techniques with Nonel to keep the dust generation, noise as well as vibration level within the prescribed limits.
3	Excavation and Loading	Proper maintenance of HEMM
		Enclosures for operator cabin.
		Imparting sufficient training to operators on safety and environmental parameters.
		Proper maintenance of hauling equipments.
		Avoiding overloading of dumpers.
4	Transportation	Regular wetting of transport road using mobile water tanker.
		Proper maintenance of haul road and other roads
		Setting up of tyre wash facility in the transport road.
		Avoiding overloading of tippers
		Covering of loaded tippers with tarpaulins during transportation
		Vehicular emissions will be controlled through regular and proper preventive maintenance schedules and emissions tests are done with diesel smoke meter equipment to ensure emission values.
5	Others	Development of greenbelt / barriers around mine in the safety zone and carrying out plantation within the lease area.
		Green netting will be carried out around the lease periphery on all sides.

Due to adoption of all these measures, no major impact on air quality is envisaged due to this proposed opencast mining operation.



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The impact on air quality due to the proposed project is estimated using AERMOD View Gaussian Plume Air Dispersion Model developed by Lakes Environmental Software which is based on steady state Gaussian plume dispersion. Ground Level Concentration (GLC) have been computed using hourly meteorological data for particulate matter PM10 and PM2.5.

The resultant added concentrations with baseline figures even at worst scenario, show that the values of ambient air quality with respect to PM10 are in the range of 53.2 µg/m³ to 65.3 µg/m³ and with respect to PM2.5 are in the range of 25.5 µg/m³ to 30.9 µg/m³ which are within the statutory limits in each case.

For preservation of environment in this mine strict enforcement of management schemes will be undertaken for taking corrective actions, as needed. By adopting the effective implementation of all the mitigative measures, no adverse impact on Air quality due to the mining operation in this lease area is expected.

11.4.3 WATER ENVIRONMENT:

Water Requirement: The total water requirement for this project will be 10.0 KLD comprising 1.0 KLD for drinking water and domestic use, 8.0 KLD for dust suppression and 1.0 KLD for greenbelt. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose.

The activity / source of pollution, its impact / consequence, proposed control measures are explained below:

Table 11.8: Mitigation Measures – Water Pollution

S.No	Source	Consequence	Mitigation Measures
A	Domestic use	Generation of waste water	The domestic sewage to be generated from the project will be collected in septic tank with soak pits.
B	Rainfall	Runoff from waste dump and stack	Towards surface runoff management, a garland drain of length 1120m will be constructed around the quarry and will be connected to 2 settling ponds one on the SW corner and another in the NE corner with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users.
		Rainwater	The rain water falling in the quarry will be harvested in the sump at



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		Harvesting	the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc.
C	Drainage Course	Disturbance to drainage course	There is a seasonal odai channel located on the eastern side of the lease for which 10m safety distance has been left. Earthen bund will be formed within the lease area. There is no proposal to discharge any effluent into this waterbody. No major impact is envisaged on the nearby water bodies due to project operations

- Stage of Groundwater Development:** The groundwater resource data of Madurai district was obtained from the data provided in the technical report of the Central Ground Water Board, South Eastern Costal Region – ‘District groundwater brochure, Madurai District.’ Based on the report it is seen that this area can be categorized as ‘Safe’ from ground water development point of view.
- Generation of mine pit water:** The occurrence and movement of groundwater in hard rock formations are restricted to the porous zones of weathered formations and the open systems of fractures, fissures and joints. Generally, in hard rock regions, occurrence of weathered thickness is discontinuous both in space and depth. Hence recharge of groundwater in hard rock formations is influenced by the intensity and depth of weathering. In the nearby region, the formations are compact with less intergranular porosity and fractures leading to less permeability and transmissivity values and as such the ground water level in this area is deep from surface. The mining area consists of hard compact rock, hence no major water seepage within the mine is expected from the periphery. The ultimate pit depth of mining is 34 m. The ground water table in this area is below this level. Hence, ground water intersection in not envisaged and ground water will not be affected appreciably due to the quarrying operation.

11.4.4 NOISE ENVIRONMENT:

Anticipated noise levels resulting from operation of the various machineries like excavator, tippers, drill have been computed using point source model. Computation of cumulative noise levels at the nearby villages is made based on the assumption that there are no attenuation paths between the source and the boundary. From the studies, it is found that the predicted Noise Levels due to mining operations at the periphery of the mine lease itself will be less even without considering any attenuation factor. However, practically there will be attenuation due to



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vegetation etc., and as such there will not be any adverse noise propagation outside the lease boundary. Since the habitations are also away the effect of noise due to mining operations will not be felt at all in the surrounding village. Hence, by implementing the following mitigative measures for noise control, the impact on noise levels will continue to be insignificant:

- Planting rows of native trees along roads, around mine area and other noise generating centres to act as acoustic barriers.
- Sound proof operator's cabin for equipments like shovel, tippers, etc.
- Proper and regular maintenance of equipments may lead to less noise generation.
- Providing in-built mechanism for reducing sound emissions.
- Providing earplugs to workers exposed to higher noise level.
- Conducting regular health check-up of workers including Audiometry test for the workers engaged in noise prone area.
- Displaying the noise level status of operational machinery on the machines to know the extent of noise level and to control the time to which the worker is exposed to higher noise levels.
- Provision of green net in lease periphery

Further green belt and afforestation will be planned and executed to abate noise and dust propagation in the area.

11.4.5. VIBRATION:

To reduce ground vibratory conditions, various control measures will be implemented such as keeping PPV below 10mm/s for 8-25hz frequency range, formulating drilling and charging pattern with less explosive charge, initiating sequence and using NONEL, carrying out blasting with minimum charge per delay, avoiding blasting during strong winds etc. By adoption of above measures, it will be ensured that the ground level vibration due to blasting are maintained within the limits prescribed by DGMS, Dhanbad at the mining areas vide Circular No. 7 dated 29 -08-1997. Besides, different blasting time for the projects in the vicinity is suggested and the



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timing is to be mentioned in the display board in the respective mines entrance. Elaborate details regarding the same are provided under section 4.4.2, Chapter-IV.

11.4.6 IMPACT ON LAND ENVIRONMENT:

The lease area of 4.20.0 Ha in S.F.No. 34/1A,1B,2, 52/2,3 & 60/2 is a patta land. There is no waste generation anticipated in this quarry operation since the entire excavated material will be utilized. Hence, there is no external overburden dump involved. Plantation will be carried out in this safety zone area. In the post mining stage, at the end of the 5 year period, 3.18.0 Ha will be used as mined out area at 24m depth. Subsequently, in the remaining 6th to 10th year there will be only depth ward mining in the same mined out area up to 34 m depth. Ultimately the entire mined out area will be left as water body. 0.08.0 Ha will be the mine roads& infrastructure, 0.72.0 Ha will be covered with vegetation, 0.10.0 ha will be undisturbed area and 0.12.0 will be fencing. Entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. In the post mining stage the rainwater harvested in the mined out void shall be utilized.

11.4.7 BIOLOGICAL ENVIRONMENT:

Necessary mitigative measures like dust suppression, proper maintenance of equipment's, greenbelt and plantation etc., will be carried out to prevent dust generation & any further impact on the vegetation. In the lease area, safety barrier 7.5m & 10 m around the periphery is left. About 2200 trees will be planted in and around the lease area.

11.4.8 SOCIO ECONOMIC ENVIRONMENT:

The entire lease area is a private patta land. Hence, there are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here. The mining operations in the proposed quarry will employ about 18 people. Besides through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise in this area, which will provide raising income levels and standards of living in the area through various service related activities connected with the project operations.

Towards the socio economic development of the surrounding area, the proponent has earmarked an amount of Rs.5.0 Lakhs under Corporate Environmental Responsibility. The



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activities identified under CER will be implemented in a phased manner. In consultation with the locals based on the need & priority it will be implemented.

11.4.9 OCCUPATIONAL HEALTH AND SAFETY ASPECTS:

In order to ensure minimisation of occupational health and safety problems in the project operation, the following preventive remedial measures will be effectively exercised in the project operations, so as to comply with applicable standards.

- Medical examination of workers at pre-entry level stage of workers, etc., by qualified doctors, with periodical examination of all workers/staff at least once a year, as per DGMS circulars.
- Regular awareness campaigns amongst staff and workers
- Staff will be provided with PPE to guard against excess noise levels, Dust generation and inhalation, etc., as per standards prescribed by DGMS.

11.4.10 IMPACT ON LOCAL LOGISTICAL SYSTEM DUE TO PROJECT:

From this proposed quarry the entire output will be transported to the consumers like external crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. There will be about 3 trips per hour. The transport route can easily absorb this negligible traffic due to this project. The following mitigative measures are suggested for mitigation of adverse impacts on the logistical aspect of the project:

- ❖ Water sprinkling on Rough stone in the transport vehicles before transporting, so that no dust nuisance during transport will arise.
- ❖ Proper maintenance of transport roads
- ❖ Proper maintenance of transport vehicles.
- ❖ Avoiding overloading of material
- ❖ Covering of loaded vehicles with tarpaulins sheet if warranted.

11.4.11 WASTE MANAGEMENT:



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Since the entire mined out material will be used there will not be any solid waste generation from this project. There is no process effluent generation from this mine. Hence no liquid waste is generated.

The hazardous waste generated in this mine will be stored in a separate storage area with impervious containers for waste oil, oil contaminated clothes, used lead acid batteries, scraps, tyre storage etc. It will be disposed through authorized recyclers or re-processors periodically. The hazardous wastes will be transported in accordance with the provisions of rules. By effective implementation of above said mitigation measures no major impact due to Hazardous waste is expected.

Single use plastics/ use and throwaway plastics will be banned in the site as directed by the Tamil Nadu Government vide GO(Ms)No.84 regarding ban on use of plastic products. The employees will be encouraged to use compostable material or reusable material.

11.5 ENVIRONMENTAL MONITORING PROGRAMME:

The monitoring schedules are planned for systematic study of various pollution levels with respect to air and water qualities, noise levels, etc. to ensure that they conform to the standards laid down by Environmental Protection Act and various statutory Limits.

Monitoring location and the frequency of monitoring shall be suitably modified in consultation with the nodal agency as per the actual requirements and prevailing conditions of the mine and environmental factors, as dictated from time to time, depending on the prevailing pollution levels, if required.

Towards EMP measures, Rs. 27.38 Lakhs is allocated under capital cost. Besides, Rs. 18.29 Lakhs per annum will be spent under recurring cost. All the recurring cost of maintenance of pollution control measures, environmental monitoring etc., will be met from revenue. Further details of the capital and recurring cost of environmental management has been provided in in Table No. 10.2, Chapter-X.

11.6 ADDITIONAL STUDIES:

The additional studies covered for this EIA / EMP report are:

1. Public consultation of the project as per MoEF&CC mandates.



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2. Risk Assessment
3. R&R Plan
4. Mine closure plan

This draft EIA/EMP report will be exposed to public consultation as per mandatory procedures through the District Collector and State Pollution Control Board officials after giving 30 days advance notice in two local newspapers about the scheduled date and time for conduct of the public hearing procedures. The opinions, concerns and objections of stakeholders will be recorded during the public hearing. All the public queries and the replies to the query by the project proponent and officials concerned will be recorded and incorporated in the EIA/EMP report for approval by SEIAA, Tamil Nadu.

Elaborate description in respect of Risk Assessment and Mine closure plan are given in **Chapter - VII**.

Although the individual lease area of this project is less than 5 Ha, the other existing and proposed quarries within the 500m radius along with this subject project works out to >5 Ha. As such cluster situation applicable and this EMP is prepared. The baseline monitoring carried out for this project reflects the cumulative impact of the existing quarry. For the proposed quarries, a cumulative impact study has been carried out.

Air :The cumulative impact on ambient air quality for PM₁₀ and PM_{2.5} due to the operations of these proposed projects are predicted based on Air Quality Model simulations. It can be seen that the resultant added concentrations with baseline figures even at worst scenario and cumulative impact of the projects show that the values of ambient air quality with respect to PM₁₀ are in the range of 55.5µg/m³ to 65.3 µg/m³ and with respect to PM_{2.5} are in the range of 26.4µg/m³ to 30.9µg/m³ which are within the statutory stipulations in respective case.

Water : The water requirement for the two projects is 15KLD. Though it may be sourced from outside agencies initially, for these projects it is planned to use the rain water collected in the mine sump later. Groundwater intersection is not envisaged due to both the quarrying operations. Besides, the stage of groundwater development in Vadipatti Taluk based on technical report of the Central Ground Water Board, South Eastern Coastal Region – 'District



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

groundwater brochure, Madurai District.' is categorized as 'Safe' thus proving that there is further scope for groundwater development. Hence, no major impact is expected on groundwater regime due to the cumulative project operations. .

Noise : Cumulative post project noise levels in the nearby 4 villages are within the statutory limits of 55dB(A). Besides it is proposed to carry out various mitigative measures such as carrying out greenbelt and afforestation to act as acoustic barriers.

Vibration: By Carrying out controlled blasting using Nonel milli second delay detonator, Optimum design for burden and spacing & reducing the explosive charge per delay to minimum in both the projects no adverse impact due to blasting vibration is expected.

Traffic: The mined out minerals will be transported by means of trucks to the consumers like crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. The total trips from these projects there will be about 5 trips per hour. The existing road can absorb this traffic due to this project. Various measures like proper maintenance of road, covering of the loaded truck with tarpaulin, water sprinkling will be carried out to ensure no adverse impact on the logistical front.

Socio-Economy: The mining operations will provide direct employment opportunity and indirect employment opportunity for scores of people through allied opportunities in logistics, contract workers, trading, repairing works etc. Towards development of the surrounding area, various activities will be carried out under Corporate Environmental Responsibility for these projects.

Land use: For the projects, in the post mining stage it will be ensured that the entire mined out area will be properly fenced to prevent inadvertent entry of men and animals. The rainwater harvested in the mined out void shall be utilized to meet the water requirement.



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

11.7 CONCLUSION:

By systematic and scientific mining adhering to all the statutory norms and enforcing and strictly implementing the above said mitigation measures mentioned in this report, no adverse impact is envisaged. The proposed mining project will benefit this region in the fields of potential employment opportunities, improved per capita income for local people, improved social welfare facilities in respect of education, medical healthcare systems, etc. in its own way and also revenue to Government through royalty, taxes etc. Besides, it will meet the raw material requirement of the construction industry also.

* * * * *



CHAPTER 12

DISCLOSURE OF CONSULTANTS ENGAGED

Creative Engineers & Consultants, Chennai is an **NABL** accredited testing laboratory and **NABET** accredited EIA consultancy. Established over 25 years ago, this company has steadily made good strides in the environmental impact assessment fields, and is also one of the first companies to get accredited by NABET as an Accredited Consultant Organization as early as 2011. Creative Engineers & Consultants has to its credit, successful completion of numerous EIA/EMP reports, grant of environmental clearances and periodic environmental monitoring works. Presently, the company has been accredited by NABET as a 'Category-A' organization for the sectors of Mining of Minerals (opencast only), Thermal Power Plants, Mineral Beneficiation and Cement Plants with the accreditation valid upto 23.12.2023. The team of experienced professionals that are a part of this organization has been detailed below.

Figure 12.1: Disclosure of consultants engaged

EXPERT NAME	QUALIFICATION	POSITION	EXPERIENCE
Mr. P. Giri	AMIE (Mining)	EIA Coordinator & Functional area Expert (AP,NV,HW),	Over 30 years of experience in EIA/EMP report, mine plan preparation, including modeling
Mr. K. Shankar	M.Sc (Geology). PGMEMG	Functional area Expert (GEO, HG, SHW, RH) & IBM approved RQP.	Over 25 years of experience in EIA/EMP report, Mine plan, hydrological report preparation
Dr. N. Radhakrishnan	M.Sc., M.Tech., Ph.D	Functional area Expert (Land use)	Over 25 years of experience in using the advanced spatial analysis techniques in GIS environment. Specialized in Spatial Information Technology and Applications (remote sensing, GIS)
Mr.S.S.Rajendran	M.Sc. (Pharmaceutical Chemistry)	Lab head	More than 9 years of experience in Environmental



DRAFT EIA/EMP REPORT FOR ROUGH STONE AND GRAVEL QUARRY OF THIRU. S.R. MUTHUPANDI AT SURVEY NOS. 34/1A,1B,2, 52/2,3 & 60/2 (PATTA LAND) OVER AN AREA OF 4.20.0 HA IN VIRALIPATTI VILLAGE, VADIPATTI TALUK, MADURAI DISTRICT TAMIL NADU.

EXPERT NAME	QUALIFICATION	POSITION	EXPERIENCE
			laboratory.
Mr. R. Babu raj	M.A (Sociology), B.Com(Y.L&Cost), ITI, Advance Diploma in Computer application	Functional Area Expert (Socio Economy)	Over 13 years of experience in dispersion modeling, computer applications. Specialized in CAD and computer software, applications. 5years experience in the field of socio economy and its allied report preparation.
Mr. B. Govindaraman	B.Sc.	Field technician	Over 20 years of field monitoring & data collection experience
Dr.B.Swamynathan	M.Sc (Ecology & Environmental Sciences), M.Phill (Botany), Ph.D (Ecology & Environmental Sciences)	EIA Coordinator & Functional Area Expert (EB,SC,LU&AP)	More than 12 years of experience in Environment and allied fields.
Ms. G. Sandhya	B. Tech Chemical Engineering M.Tech Environmental Engineering	EIA Coordinator & Functional Area Expert (AQ, WP)	Over 5 years' experience in preparation of EIA/EMP reports



புவியியல் மற்றும் சுரங்கத்துறை

ந.க.எண்.1114/கனிமம்/2021,

உதவி இயக்குநர் அலுவலகம்,
மாவட்ட ஆட்சியர் அலுவலக வளாகம்,
மதுரை.

நாள்: 04.03.2023.

குறிப்பாணை

பொருள்: கனிமங்களும், குவாரிகளும் - சிறுகனிமம் - உடைகல் மற்றும் கிராவல் - மதுரை மாவட்டம் - வாடிப்பட்டி வட்டம் - விராலிப்பட்டி கிராமம் - புல எண்கள். 52/2 (0.37.00), 52/3 (041.00), 34/1A (0.23.00), 34/1B (0.91.00), 60/2 (0.50.00) மற்றும் 34/2 (1.78.00) - 4.20.0 ஹெக்டேர் பரப்பு நிலத்தில் 10 வருடங்களுக்கு உடைகல் மற்றும் கிராவல் குவாரி உரிமம் வழங்கல் - சரியான பரப்பு (Precise Area) தேர்வு செய்யப்பட்டது - சுரங்கத்திட்டம் மற்றும் மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்ப்பிக்க கோருவது - தொடர்பாக.

- பார்வை:**
1. திரு.S.R.முத்துப்பாண்டி, த/பெ.S.ராஜேந்திரன், கோச்சடை, மதுரை என்பவரின் விண்ணப்பம் நாள். 23.07.2021.
 2. மதுரை வருவாய் கோட்டாட்சியர் கடிதம் ந.க.எண். 3724/2021/அ, நாள்.10.08.2021.
 3. வாடிப்பட்டி வட்டார வளர்ச்சி அலுவலரின் கடிதம் ந.க.எண்.971/2021/அ4, நாள்.02.09.2021
 4. மதுரை மாவட்ட நகர் ஊரமைப்பு அலுவலரின் கடிதம் ந.க.எண்.2763/2021/ம.மா, நாள்.23.09.2021
 5. புவியியல் மற்றும் சுரங்கத்துறை, உதவி இயக்குநர் புலத்தணிக்கை அறிக்கை, நாள்.03.03.2023.
 6. 1959-ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 41 மற்றும் 42.
 7. அரசாணை எண்.169 தொழில் (எம்.எம்.சி.1) துறை, நாள்: 04.08.2020.
 8. தொடர்புடைய ஆவணங்கள்.

மதுரை மாவட்டம், கோச்சடை, மேலக்கால் மெயின் ரோடு, எண். 325, என்ற முகவரியில் குடியிருந்து வரும் திரு.S.R.முத்துப்பாண்டி, த/பெ.S.ராஜேந்திரன் என்பவர் மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம், புல எண்கள். 52/2 (0.37.00), 52/3 (041.00), 34/1A (0.23.00), 34/1B (0.91.00), 60/2 (0.50.00), மற்றும் 34/2 (1.78.00) மொத்தப் பரப்பு 4.20.0 ஹெக்டேரில் 10 வருடங்களுக்கு உடைகல் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வழங்க கேட்டு பார்வை 1-ல் காணும் விண்ணப்பத்தினை சமர்ப்பித்துள்ளார்.

சுவாமி
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மதுரை, வருவாய் கோட்டாட்சியர் மற்றும் புவியியல் மற்றும் சுரங்கத்துறை, உதவி இயக்குநர் ஆகியோரின் அறிக்கையில் வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம், புல எண்கள். 52/2, 52/3, 34/1A, 34/1B, 60/2, மற்றும் 34/2, மொத்தம் 4.20.0 ஹெக்டேர் பரப்பு நிலங்கள், பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), ராஜேந்திரன் மகன் முத்துப்பாண்டி (2), பிரேம்சந்தர் மகன் ஸ்ரீராம் (3), பழனிச்சாமி மகன் விஜயகார்த்திக் (4), ஆகிய நான்கு நபர்களின் பேரில் கூட்டுப் பட்டாவாக உள்ளது என்றும், கூட்டுப் பட்டாதாரர் விண்ணப்பதாரர் திரு.முத்துப்பாண்டி என்பவருக்கு 15 வருடங்களுக்கு உடைகல் குவாரி அமைத்துக்கொள்ள சம்மதம் தெரிவித்து ஒப்பந்தம் செய்துள்ளனர் என அறிக்கையில் தெரிவித்துள்ளார்.

மேற்படி, விண்ணப்பிக்கப்பட்ட புலங்களை சுற்றிலும் 300 மீட்டர் சுற்றளவில் குடியிருப்புகள், பள்ளிகள், கோயில்கள், மசூதிகள், சுடுகாடு ஏதும் இல்லை. 50 மீட்டர் சுற்றளவில் தேசிய / மாநில நெடுஞ்சாலைகள், ஆறுகள், கட்டிடங்கள், உயர் /தாழ்வழுத்த மின்கம்பிகள் இல்லை. உயர்வகை மரங்கள் ஏதுவும் இல்லை.மேலும், வனத்துறையால் பாதுகாக்கப்பட்ட பகுதியாக அறிவிக்கப்பட்ட சரணாலயங்கள், தேசிய பூங்காக்கள் சுற்றுச்சூழல் உணர் திறன் மிக்க பகுதிகள் (ECO-SENSITIVE ZONE), 60 மீட்டர் சுற்றளவில் காப்பு காடுகள், 500 மீட்டர் சுற்றளவில் அருங்காட்சியக துறையின் மூலம் பாதுகாக்கப்பட்ட பகுதிகளாக அறிவிக்கப்பட்ட இடங்கள் மற்றும் வரலாற்று சின்னங்கள் ஏதும் இல்லை. புலங்களுக்கு சென்று வர பாதை வசதி உள்ளது என அறிக்கை செய்து, பின்வரும் நிபந்தனைகளுக்கு உட்பட்டு குவாரி உரிமம் வழங்க பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்:

- 1) அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீ பாதுகாப்பு இடைவெளி விடுத்து குவாரி செய்தல் வேண்டும்.
- 2) விண்ணப்ப புல எண்கள்.34/1B , 34/2-ல் மேற்கில் செல்லும் ஓடைக்கு 10மீ பாதுகாப்பு இடைவெளி விடத்து குவாரி செய்ய வேண்டும்.
- 3) புல எண்கள்.52/2 மற்றும் 52/3-ல் கிழக்கில் தென்வடலாக செல்லும் ஓடைக்கும் 10மீ பாதுகாப்பு இடைவெளி விடத்து குவாரி செய்ய வேண்டும்.
- 4) பொதுமக்கள் / விவசாய நிலங்களுக்கு பாதிப்பு ஏற்படாத வகையில் தகுதி வாய்ந்த அங்கீகரிக்கப்பட்ட நபர்கள் மூலம் வெடிமருந்துகள் சேமிக்கப்பட்டு குவாரியில் வெடித்தல் வேண்டும். குவாரியில் குறைந்த சக்தி கொண்ட வெடி மருந்துகளை பயன்படுத்தல் வேண்டும்.
- 5) சுரங்கத்திட்டம் மற்றும் சுற்றுச்சூழல் தடையில்லாச் சான்று குத்தகை உரிமம் வழங்குவதற்கு முன் சமர்ப்பிக்க வேண்டும்.

5/12/25
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From

Thiru.T.Selvasekar, M.Sc.,
Assistant Director (i/c),
Dept. of Geology and Mining,
Madurai.

To

Thiru.S.R.Muthupandi,
S/o. Sri.S.Rajendran,
325, Melakkal Main Road,
Kochadai, Arasaradi,
Madurai District - 625 016.

Roc.No.1114/Mines/2021, dated.21.03.2023

Sir,

Sub: Mines and Minerals - Minor Mineral - Rough stone and Gravel - Madurai District - Vadipatti Taluk - Viralipatti Village - Patta land - S.F. Nos.34/1A, 1B, 2, 52/2, 3 & 60/2 - Over an extent of 4.20.0 Hects - Application preferred by Thiru.S.R.Muthupandi - Precise Area Communicated - Draft Mining Plan submitted - Approval Accorded - Reg.

- Ref: 1. Quarry lease application preferred by Thiru.S.R.Muthupandi, dated.23.07.2021
2. Precise area communication letter Roc No.1114/Mines/2021, dated.04.03.2023.
3. Letter dated.Nil. received from Thiru.S.R.Muthupandi along with draft mining plan on 17.03.2023.

Thiru.S.R.Muthupandi has preferred an application for the grant of lease to quarry Rough stone and Gravel in SF.Nos.34/1A (0.23.0), 34/1B (0.91.0), 34/2 (1.78.0), 52/2 (0.37.0), 52/3 (0.41.0), 60/2 (0.50.0) over an extent of 4.20.0 Hects of patta land in Viralipatti Village, Vadipatti Taluk under Rule 19(1) of Tamil Nadu Minor Mineral Concession Rules, 1959.

Based on reports and recommendations of the Revenue Divisional Officer, Madurai and Assistant Geologist (Mines), precise area was communicated to the applicant vide reference 2nd cited with a

S. R. Muthupandi

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direction to submit mining plan as stipulated in rule 41 of Tamil Nadu Minor Mineral Concession Rules, 1959.

Accordingly, Thiru.S.R.Muthupandi has submitted the draft Mining Plan and the same has been examined in detail and found correct. The mining plan submitted by Thiru.S.R.Muthupandi in respect of the subject area is 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 the Mines and Minerals (Development and Regulation) Act, 1957, or any other connected laws including Forest (Conservation) Act, 1980, Forest Conservation Rules, 1981, Environment Protection Act, 1980, Indian Explosives Act, 1884(Central Act IV of 1884) and the rules made there under the Tamil Nadu Minor Mineral Concession Rules, 1959.
- (iii). That the mining plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
- (iv). Quarrying shall be done as per the approved Mining Plan and 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.
- (v). If anything is found to be concealed as required by the Mines Act in the contents of the Mining Plan and the proposal for

rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.

- (vi). Waste material should be dumped within the lease granted area as earmarked in the Mining Plan.
- (vii). Quarrying operations and production shall be carried out as per the approved Mining Plan and the applicant shall be liable to pay the cost of mineral if there is any deviation in the quantum indicated in the approved year wise quantum of production and any such cases as on date are to be dealt with as per Court direction.
- (viii). If any violation is found during quarrying operation, the penal provisions of Tamil Nadu Minor Mineral Concession Rules 1959 and other rules and act in force will attract.
- (ix). The applicant shall strictly adhere to the statutory and safety requirements.

Encl: Approved Mining Plan.

h y n s
Assistant Director (i/c),
Dept. of Geology and Mining,
Madurai.

Copy To:

The Commissioner,
Department of Geology and Mining,
Guindy, Chennai - 600 032

21/2/23

S. P. M. S.

From

Thiru.T.Selvasekar, M.Sc.,
Assistant Director (i/c),
Dept. of Geology and Mining,
Madurai.

To

Thiru.S.R.Muthupandi,
S/o. Sri.S.Rajendran,
325, Melakkal Main Road,
Kochadai, Arasaradi,
Madurai District – 625 016.

Roc.No.1114/Mines/2021, dated.21.03.2023

Sir,

Sub: Mines and Minerals - Minor Mineral – Rough stone and Gravel - Madurai District – Vadipatti Taluk – Viralipatti Village – Patta land - S.F. Nos.34/1A, 1B, 2, 52/2, 3 & 60/2 - Over an extent of 4.20.0 Hects - Application preferred by Thiru.S.R.Muthupandi - Precise Area Communicated - Draft Mining Plan submitted - Approval Accorded - 500m details requested - Furnished - Reg.

- Ref: 1. Quarry lease application preferred by Thiru.S.R.Muthupandi, dated.23.07.2021.
2. Precise area communication letter Roc No.1114/Mines/2021, dated.04.03.2023.
3. Letter dated.Nil. received from Thiru.S.R.Muthupandi along with draft mining plan on 17.03.2023.
4. This office letter even No. dated. 21.03.2023.

Thiru.S.R.Muthupandi has preferred an application for the grant of lease to quarry Rough stone and Gravel in SF.Nos.34/1A (0.23.0), 34/1B (0.91.0), 34/2 (1.78.0), 52/2 (0.37.0), 52/3 (0.41.0), 60/2 (0.50.0) over an extent of 4.20.0 Hects of patta land in Viralipatti Village, Vadipatti Taluk under Rule 19(1) of Tamil Nadu Minor Mineral Concession Rules, 1959.

S.R.Muthupandi

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Based on reports and recommendations of the Revenue Divisional Officer, Madurai and Assistant Geologist (Mines), precise area was communicated to the applicant vide reference 2nd cited with a direction to submit mining plan as stipulated in rule 41 of Tamil Nadu Minor Mineral Concession Rules, 1959.

Accordingly Thiru.S.R.Muthupandi has submitted the draft Mining Plan and the same has been approved on 21.03.2023. In this connection the applicant has requested to furnish the details of quarry lease / mining lease situated within 500 mts radius from the subject quarry for obtaining Environment Clearance from the State level Environment Impact Assessment Authority.

In this connection it is stated that, the following existing, abandoned / expired and proposed quarries are located within 500m radius distance from the proposed area.

a. Existing Quarries

Sl No	Name of the Owner	Village	S.F.No.	Extent (in hecst)	Collector's Proceedings No & date	Lease period
-Nil-						

b. Expired / Abandoned Quarries

Sl No	Name of the Owner	Village	S.F.No	Extent (in hecst)	Collector's Proceedings No & date	Lease period	Remarks
1.	D.Ponrjan, 5A, Thamas Street, Narimedi, Madurai - 2	Virali patti	43 - Poram boke	1.94.0	Rc.No. 1223/09/Mines, dated. 05.11.2009	02.12.2009 to 01.12.2014	

S.R.Muthupandi
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c. Proposed Quarries

Sl No	Name of the Owner	Village	S.F.No.	Extent (in hecets)
1.	Thiru.S.R.Muthupandi	Viralipatti	34/1A (0.23.0), 34/1B (0.91.0), 34/2 (1.78.0), 52/2 (0.37.0), 52/3 (0.41.0), 60/2 (0.50.0)	4.20.0

[Handwritten Signature]
Assistant Director *[Handwritten]*
Dept of Geology and Mining,
Madurai

Copy to:
The Chairman,
State Level Environment Impact,
Assessment Authority, Tamil Nadu,
3rd Floor, Panagal Maaligai,
No.1 Jeenis Road, Saidapet,
Chennai-15.

[Handwritten Signature]
2-12/25

[Handwritten Signature]
S. R. Muthupandi

POPULATION BREAKUP & LITERACY LEVEL IN THE BUFFER ZONE

Sl.No	No. of Villages	Name of village	Rural / urban	HOUSE HOLDS	POPULATION			POPULATION BELOW 6 AGE GROUP			SCHEDULE CASTE			SCHEDULE TRIBE			LITRERATES			ILLITRERATES			
					TOTAL	MALE	F.MALE	TOTAL	MALE	F.MALE	TOTAL	MALE	F.MALE	TOTAL	MALE	F. MALE	TOTAL	MALE	F.MALE	TOTAL	MALE	F.MALE	
0-2 km,Vadipatti Sub-District, Madurai District																							
1	1	Viralipatti	Rural	294	1133	581	552	157	86	71	586	286	300	0	0	0	678	386	292	455	195	260	
		total (A)		294	1133	581	552	157	86	71	586	286	300	0	0	0	678	386	292	455	195	260	
2-5 km,Vadipatti Sub-District, Madurai District																							
2	1	Katchiakatti	Rural	3350	13141	6552	6589	1319	669	650	5165	2533	2632	42	18	24	8223	4591	3632	4918	1961	2957	
Vadipatti Sub-District, Madurai District																							
3	1	Vadipatti (TP)	Urban	6788	26830	13326	13504	2785	1415	1370	5844	2939	2905	9	4	5	19355	10366	8989	7475	2960	4515	
		total (B)		10138	39971	19878	20093	4104	2084	2020	11009	5472	5537	51	22	29	27578	14957	12621	12393	4921	7472	
5-10 km,Vadipatti Sub-District, Madurai District																							
4	1	Ramayagoundenpatti	Rural	169	742	389	353	86	50	36	20	11	9	13	6	7	384	237	147	358	152	206	
5	2	Nachikulam	Rural	1108	4378	2170	2208	379	192	187	1646	831	815	0	0	0	3144	1710	1434	1234	460	774	
6	3	Thethoor	Rural	1538	5906	2996	2910	601	306	295	707	360	347	0	0	0	3804	2155	1649	2102	841	1261	
7	4	Vaigasipatti	Rural	305	1159	583	576	154	75	79	81	42	39	0	0	0	739	413	326	420	170	250	
8	5	Andipatti	Rural	451	1677	860	817	149	74	75	667	339	328	0	0	0	1233	685	548	444	175	269	
9	6	Chinnamanayakkanpatti	Rural	144	532	263	269	66	34	32	317	158	159	0	0	0	347	183	164	185	80	105	
10	7	Thummachampatti	Rural	253	947	461	486	112	46	66	195	93	102	0	0	0	634	336	298	313	125	188	
11	8	Karupatti	Rural	885	3399	1712	1687	361	184	177	1893	950	943	1	1	0	2419	1316	1103	980	396	584	
12	9	Ayankurivithurai	Rural	448	1726	924	802	173	105	68	444	224	220	0	0	0	1151	670	481	575	254	321	
13	10	Kovilkuruvithurai	Rural	364	1379	734	645	120	68	52	0	0	0	0	0	0	826	500	326	553	234	319	
14	11	Mannadimangalam	Rural	1838	7259	3662	3597	826	440	386	1780	884	896	840	425	415	4868	2664	2204	2391	998	1393	
15	12	Irumbadi	Rural	1576	5845	2951	2894	567	292	275	742	368	374	4	2	2	3975	2214	1761	1870	737	1133	
16	13	Kattakulam	Rural	643	2440	1197	1243	244	124	120	1039	503	536	128	67	61	1714	922	792	726	275	451	
17	14	Thanichiyam	Rural	1988	7573	3738	3835	779	397	382	2446	1214	1232	17	5	12	5334	2882	2452	2239	856	1383	
18	15	Kondayampatti	Rural	839	2999	1497	1502	323	168	155	526	263	263	1	0	1	2105	1149	956	894	348	546	
19	16	Kalvelipatti	Rural	1233	4363	2153	2210	513	256	257	1097	544	553	0	0	0	3005	1640	1365	1358	513	845	
20	17	Periya Ilandaikulam	Rural	398	1436	747	689	151	84	67	194	101	93	0	0	0	893	516	377	543	231	312	
21	18	Kuthimeikipatti	Rural	326	1302	630	672	154	80	74	344	161	183	0	0	0	923	496	427	379	134	245	
22	19	Kilakarai	Rural	133	469	231	238	35	20	15	20	13	7	0	0	0	317	176	141	152	55	97	
23	20	Kovilpatti	Rural	347	1347	693	654	166	89	77	562	286	276	0	0	0	838	473	365	509	220	289	
24	21	Sambakulam	Rural	142	556	262	294	64	33	31	298	145	153	0	0	0	332	162	170	224	100	124	
25	22	Nedungulam	Rural	422	1710	853	857	170	92	78	325	168	157	0	0	0	1222	642	580	488	211	277	
26	23	Thirumalnattam	Rural	178	707	343	364	85	36	49	584	287	297	0	0	0	463	254	209	244	89	155	
27	24	Mullipallam	Rural	2173	7903	3972	3931	803	416	387	1314	655	659	0	0	0	5606	3105	2501	2297	867	1430	
28	25	Kovilthenkarai	Rural	84	281	137	144	29	17	12	0	0	0	0	0	0	194	103	91	87	34	53	
29	26	Sirumalai R.F.	Rural	102	407	207	200	71	31	40	30	11	19	0	0	0	163	92	71	244	115	129	
30	27	Sembathi R.F	Rural	6	18	10	8	1	0	1	0	0	0	0	0	0	9	7	2	9	3	6	
Vadipatti Sub-District, Madurai District																							
31	1	Sholavandan (TP)	Urban	5936	22578	11168	11410	2213	1090	1123	3351	1626	1725	18	11	7	16783	8967	7816	5795	2201	3594	
Dindigul Sub-District, Dindigul District																							

32	1	Sirumalai	Rural	1287	5041	2587	2454	522	284	238	893	461	432	125	62	63	2970	1650	1320	2071	937	1134	
Nilakkottai Sub-District, Dindigul District																							
33	1	Silukkuvarpatti	Rural	2703	10725	5274	5451	1190	620	570	3537	1718	1819	0	0	0	7272	3870	3402	3453	1404	2049	
34	2	Malayagoundanpatti	Rural	1383	5424	2716	2708	589	309	280	1820	923	897	2	1	1	3463	1935	1528	1961	781	1180	
35	3	Kullalagundu	Rural	1828	7200	3560	3640	810	366	444	3294	1624	1670	0	0	0	4773	2684	2089	2427	876	1551	
36	4	Pallapatti	Rural	1959	7633	3853	3780	852	421	431	2139	1073	1066	0	0	0	4843	2777	2066	2790	1076	1714	
37	5	Ethilodu	Rural	2496	9580	4815	4765	1019	514	505	2967	1461	1506	0	0	0	5962	3426	2536	3618	1389	2229	
38	6	Mattapparai	Rural	1131	4360	2210	2150	489	254	235	1466	730	736	4	3	1	2872	1625	1247	1488	585	903	
39	7	Kolladipatti	Rural	373	1311	632	679	114	54	60	474	230	244	0	0	0	921	492	429	390	140	250	
40	8	Ramarajapuram	Rural	1307	4985	2521	2464	508	261	247	983	494	489	0	0	0	3355	1894	1461	1630	627	1003	
41	9	Vilampatti	Rural	683	2589	1309	1280	265	137	128	543	264	279	0	0	0	1720	945	775	869	364	505	
Nilakkottai Sub-District, Dindigul District																							
42	1	Ammainaickanur (TP)	Urban	4983	19257	9728	9529	2031	1041	990	3432	1744	1688	23	20	3	13803	7587	6216	5454	2141	3313	
		total (C)		44162	169143	84748	84395	17784	9060	8724	42170	20959	21211	1176	603	573	115379	63554	51825	53764	21194	32570	
		Grand Total (A+B+C)		54594	210247	105207	105040	22045	11230	10815	53765	26717	27048	1227	625	602	143635	78897	64738	66612	26310	40302	

*Source: District Primary Census Abstract, Madurai & Dindigul District of Tamilnadu State-2011

OCCUPATIONAL STRUCTURE IN THE BUFFER ZONE

Sl.No	No. of Villages	Name of village	Rural / urban	MAIN WORKERS		CULTIVATORS		AGRI LABOURS		HOUSE HOLD		OTHERS		MARGINAL WORKERS		NON WORKERS	
				MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE	MALE	F.MALE
0-2 km,Vadipatti Sub-District, Madurai District																	
1	1	Viralipatti	Rural	314	235	53	12	175	203	0	2	86	18	11	22	256	295
		total (A)		314	235	53	12	175	203	0	2	86	18	11	22	256	295
2-5 km,Vadipatti Sub-District, Madurai District																	
2	1	Katchiakatti	Rural	3951	3193	312	126	2227	2331	39	77	1373	659	115	128	2486	3268
Vadipatti Sub-District, Madurai District																	
3	1	Vadipatti (TP)	Urban	5962	2812	527	276	2075	1267	134	111	3226	1158	1869	1544	5495	9148
		total (B)		9913	6005	839	402	4302	3598	173	188	4599	1817	1984	1672	7981	12416
5-10 km,Vadipatti Sub-District, Madurai District																	
4	1	Ramayagoundenpatti	Rural	239	184	63	59	125	110	1	2	50	13	1	2	149	167
5	2	Nachikulam	Rural	966	590	256	209	348	241	34	28	328	112	308	353	896	1265
6	3	Thethoor	Rural	1714	1324	278	160	1077	1047	19	17	340	100	117	134	1165	1452
7	4	Vaigasipatti	Rural	350	273	70	64	77	103	3	0	200	106	1	0	232	303
8	5	Andipatti	Rural	247	174	4	1	131	133	0	1	112	39	295	308	318	335
9	6	Chinnamanayakkanpatti	Rural	145	94	2	0	68	70	3	4	72	20	7	6	111	169
10	7	Thummachchampatti	Rural	306	284	30	47	126	163	5	5	145	69	4	4	151	198
11	8	Karupatti	Rural	957	576	118	27	574	495	7	7	258	47	32	35	723	1076
12	9	Ayankurivithurai	Rural	391	183	32	9	233	139	3	3	123	32	154	186	379	433
13	10	Kovilkuruvithurai	Rural	401	251	3	4	324	228	12	4	62	15	53	140	280	254
14	11	Mannadimangalam	Rural	1842	1156	196	40	1179	948	35	30	432	138	442	363	1378	2078
15	12	Irumbadi	Rural	1865	818	60	10	957	540	34	27	814	241	46	98	1040	1978
16	13	Kattakulam	Rural	553	353	52	13	281	270	14	8	206	62	180	210	464	680
17	14	Thanichiyam	Rural	2131	1163	203	32	825	789	47	36	1056	306	158	184	1449	2488
18	15	Kondayampatti	Rural	747	391	81	28	276	259	11	8	379	96	163	184	587	927
19	16	Kalvelipatti	Rural	1095	687	88	40	580	541	9	6	418	100	255	287	803	1236
20	17	Periya Ilandaikulam	Rural	345	277	79	65	155	182	0	1	111	29	122	130	280	282
21	18	Kuthimeikipatti	Rural	392	323	32	39	238	256	7	2	115	26	16	31	222	318
22	19	Kilakarai	Rural	153	143	7	4	123	131	2	0	21	8	5	6	73	89
23	20	Kovilpatti	Rural	394	194	50	9	134	67	3	0	207	118	17	5	282	455
24	21	Sambakulam	Rural	24	24	3	1	19	21	0	0	2	2	156	172	82	98
25	22	Nedungulam	Rural	496	412	58	13	281	356	16	11	141	32	34	41	323	404
26	23	Thirumalnattam	Rural	205	173	0	0	164	161	1	0	40	12	1	0	137	191
27	24	Mullipallam	Rural	2023	1362	234	115	952	910	22	30	815	307	326	228	1623	2341
28	25	Kovilthenkarai	Rural	78	28	2	0	34	14	4	1	38	13	1	1	58	115
29	26	Sirumalai R.F.	Rural	103	111	1	1	98	107	1	0	3	3	10	10	94	79
30	27	Sembathi R.F	Rural	6	4	2	1	3	3	0	0	1	0	0	0	4	4
Vadipatti Sub-District, Madurai District																	
31	1	Sholavandan (TP)	Urban	5965	2320	274	68	2184	1148	85	83	3422	1021	737	580	4466	8510

Dindigul Sub-District, Dindigul District																	
32	1	Sirumalai	Rural	1436	1114	454	197	881	877	25	8	76	32	311	152	840	1188
Nilakkottai Sub-District, Dindigul District																	
33	1	Silukkuvarpatti	Rural	2576	1691	357	167	1250	1076	48	49	921	399	470	499	2228	3261
34	2	Malayagoundanpatti	Rural	1167	742	288	178	446	415	23	8	410	141	533	597	1016	1369
35	3	Kullalagundu	Rural	1716	1002	141	69	886	740	26	23	663	170	462	583	1382	2055
36	4	Pallapatti	Rural	2058	1257	195	91	895	818	28	35	940	313	230	339	1565	2184
37	5	Ethilodu	Rural	2539	1910	567	339	1453	1369	33	37	486	165	407	516	1869	2339
38	6	Mattapparai	Rural	592	313	65	39	144	171	11	7	372	96	747	748	871	1089
39	7	Kolladipatti	Rural	223	149	20	14	121	96	9	3	73	36	155	138	254	392
40	8	Ramarajapuram	Rural	997	637	112	44	569	506	22	13	294	74	643	602	881	1225
41	9	Vilampatti	Rural	280	101	38	23	34	12	13	8	195	58	561	537	468	642
Nilakkottai Sub-District, Dindigul District																	
42	1	Ammainaickanur (TP)	Urban	5161	2623	675	471	1852	1385	37	34	2597	733	715	609	3852	6297
		total (C)		42878	25411	5190	2691	20097	16897	653	539	16938	5284	8875	9018	32995	49966
		Grand Total (A+B+C)		53105	31651	6082	3105	24574	20698	826	729	21623	7119	10870	10712	41232	62677

*Source: District Primary Census Abstract, Madurai & Dindigul District of Tamilnadu State-2011

EDUCATIONAL FACILITIES IN THE STUDY AREA

Sl.No	No. of Villages	Name of village	Educational Facilities (A(1)/ NA(2))	Govt Pre - Primary School (Nursery/LKG/UKG) (Numbers)	Govt Primary School (Numbers)	Govt Middle School (Numbers)	Govt Secondary School (Numbers)	Govt Senior Secondary School (Numbers)	Govt Arts and Science Degree College (Numbers)	Govt Engineering College (Numbers)	Govt Medicine College (Numbers)	Govt Management Institute (Numbers)	Govt Polytechnic (Numbers)	Govt Vocational Training School/ITI (Numbers)	Government Non Formal Training Centre (Numbers)	Government School For Disabled (Numbers)
0-2 km,Vadipatti Sub-District, Madurai District																
1	1	Viralipatti	1	1	2	0	0	0	0	0	0	0	0	0	1	0
		total (A)	1	1	2	0	0	0	0	0	0	0	0	0	1	0
2-5 km,Vadipatti Sub-District, Madurai District																
2	1	Katchiakatti	1	12	10	3	0	0	0	0	0	0	0	0	1	0
3	2	Katchiakatti R.F.	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		total (B)	2	12	10	3	0	0	0	0	0	0	0	0	1	0
5-10 km,Vadipatti Sub-District, Madurai District																
4	1	Ramayagoundenpatti	1	1	1	1	0	0	0	0	0	0	0	0	1	0
5	2	Nachikulam	1	5	4	1	1	1	0	0	0	0	0	0	1	0
6	3	Thethoor	1	7	3	1	1	1	0	0	0	0	0	0	1	0
7	4	Vaigasipatti	1	1	1	0	0	0	0	0	0	0	0	0	1	0
8	5	Andipatti	1	2	1	1	0	0	0	0	0	0	0	0	1	0
9	6	Chinnamanayakkanpatti	1	1	0	0	0	0	0	0	0	0	0	0	0	0
10	7	Thummachchampatti	2	0	0	0	0	0	0	0	0	0	0	0	0	0
11	8	Karupatti	1	4	4	1	1	0	0	0	0	0	0	0	1	0
12	9	Ayankurivithurai	1	2	0	0	0	0	0	0	0	0	0	0	0	0
13	10	Kovilkuruvithurai	1	1	1	0	0	0	0	0	0	0	0	0	1	0
14	11	Mannadimangalam	1	6	4	1	1	1	0	0	0	0	0	0	1	0
15	12	Irumbadi	1	4	1	1	1	0	0	0	0	0	0	0	1	0
16	13	Kattakulam	1	1	2	1	0	0	0	0	0	0	0	0	1	0
17	14	Thanichiyam	1	7	5	2	1	0	0	0	0	0	0	0	1	0
18	15	Kondayampatti	1	4	1	1	1	1	0	0	0	0	0	0	1	1
19	16	Kalvelipatti	1	6	3	0	0	0	0	0	0	0	0	0	1	0
20	17	Periya Ilandaikulam	1	1	1	0	0	0	0	0	0	0	0	0	1	0
21	18	Kuthimeikipatti	1	1	1	1	0	0	0	0	0	0	0	0	1	0
22	19	Kilakarai	1	1	0	0	0	0	0	0	0	0	0	0	0	0
23	20	Kovilpatti	1	1	3	0	0	0	0	0	0	0	0	0	1	0
24	21	Sambakulam	1	1	2	1	0	0	0	0	0	0	0	0	1	0
25	22	Nedungulam	1	1	2	1	0	0	0	0	0	0	0	0	1	0
26	23	Thirumalnattam	1	1	1	0	0	0	0	0	0	0	0	0	1	0
27	24	Mullipallam	1	6	4	2	2	0	0	0	0	0	0	0	1	0
28	25	Kovilthenkarai	1	1	0	0	0	0	0	0	0	0	0	0	0	0
29	26	Sirumalai R.F.	2	0	0	0	0	0	0	0	0	0	0	0	0	0
30	27	Sembathi R.F.	2	0	0	0	0	0	0	0	0	0	0	0	0	0
31	28	Vaguthumalai R.F.	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Dindigul Sub-District, Dindigul District																
32	1	Sirumalai	1	6	4	2	0	0	0	0	0	0	0	0	1	0
Nilakkottai Sub-District, Dindigul District																
33	1	Silukkuvarpatti	1	8	6	2	1	1	0	0	0	0	0	0	1	0
34	2	Malayagoundanpatti	1	7	6	0	0	0	0	0	0	0	0	0	1	0
35	3	Kullalagundu	1	7	3	1	0	0	0	0	0	0	0	0	1	0
36	4	Pallapatti	1	5	2	1	1	1	0	0	0	0	0	0	0	0
37	5	Ethilodu	1	8	4	2	1	1	0	0	0	0	0	0	1	0
38	6	Mattapparai	1	4	3	1	1	0	0	0	0	0	0	0	1	0
39	7	Kolladipatti	1	1	1	0	0	0	0	0	0	0	0	0	1	0
40	8	Ramarajapuram	1	4	2	1	0	0	0	0	0	0	0	0	1	0
41	9	Vilampatti	1	2	3	1	1	0	0	0	0	0	0	0	1	0

	total (C)		118	79	27	14	7	0	0	0	0	0	0	0	29	1
	Grand Total (A+B+C)		131	91	30	14	7	0	0	0	0	0	0	0	31	1

**Source: District Primary Census Abstract, Madurai & Dindigul District of Tamilnadu State-2011*

MEDICAL FACILITIES WITHIN THE STUDY AREA

Sl.No	No. of Villages	Name of village	Medical Facilities (A(1)/NA(2))	Community Health Centre (Numbers)	Primary Health Centre (Numbers)	Primary Health Sub Centre (Numbers)	Maternity And Child Welfare Centre (Numbers)	TB Clinic (Numbers)	Hospital Allopathic (Numbers)	Hospital Alternative Medicine (Numbers)	Dispensary (Numbers)	Veterinary Hospital (Numbers)	Mobile Health Clinic (Numbers)	Family Welfare Centre (Numbers)
0-2 km,Vadipatti Sub-District, Madurai District														
1	1	Viralipatti	2	0	0	0	0	0	0	0	0	0	0	0
		total (A)	0	0	0	0	0	0	0	0	0	0	0	0
2-5 km,Vadipatti Sub-District, Madurai District														
2	1	Katchiakatti	1	1	1	2	1	1	0	0	1	1	0	1
3	2	Katchiakatti R.F.	2	0	0	0	0	0	0	0	0	0	0	0
		total (B)	1	1	2	1	1	1	0	0	1	1	0	1
5-10 km,Vadipatti Sub-District, Madurai District														
4	1	Ramayagoundenpatti	2	0	0	0	0	0	0	0	0	0	0	0
5	2	Nachikulam	1	0	0	1	0	0	0	0	0	1	0	0
6	3	Thethoor	1	0	0	2	0	0	0	0	0	0	0	0
7	4	Vaigasipatti	2	0	0	0	0	0	0	0	0	0	0	0
8	5	Andipatti	1	0	0	1	0	0	0	0	0	0	0	0
9	6	Chinnamanayakkanpatti	2	0	0	0	0	0	0	0	0	0	0	0
10	7	Thummachchampatti	2	0	0	0	0	0	0	0	0	0	0	0
11	8	Karupatti	1	0	0	1	0	0	0	0	0	0	0	0
12	9	Ayankurivithurai	2	0	0	0	0	0	0	0	0	0	0	0
13	10	Kovilkuruvithurai	1	0	0	1	0	0	0	0	0	0	0	0
14	11	Mannadimangalam	1	0	0	1	0	0	0	0	0	1	0	0
15	12	Irumbadi	1	0	0	1	0	0	0	0	0	0	0	0
16	13	Kattakulam	2	0	0	0	0	0	0	0	0	0	0	0
17	14	Thanichiyam	1	0	1	1	1	1	0	0	1	1	0	1
18	15	Kodayampatti	1	0	0	1	0	0	0	0	0	1	0	0
19	16	Kalvelipatti	1	0	0	1	0	0	0	0	0	0	0	0
20	17	Periya Ilandaikulam	2	0	0	0	0	0	0	0	0	0	0	0
21	18	Kuthimeikipatti	1	0	0	1	0	0	0	0	0	0	0	0
22	19	Kilakarai	1	0	0	1	0	0	0	0	0	0	0	0
23	20	Kovilpatti	2	0	0	0	0	0	0	0	0	0	0	0
24	21	Sambakulam	1	0	0	1	0	0	0	0	0	1	0	0
25	22	Nedungulam	2	0	0	0	0	0	0	0	0	0	0	0
26	23	Thirumalnattam	2	0	0	0	0	0	0	0	0	0	0	0
27	24	Mullipallam	1	0	0	1	0	0	0	0	0	0	0	0
28	25	Kovilthenkarai	2	0	0	0	0	0	0	0	0	0	0	0
29	26	Sirumalai R.F.	2	0	0	0	0	0	0	0	0	0	0	0
30	27	Sembathi R.F	2	0	0	0	0	0	0	0	0	0	0	0
31	28	Vaguthumalai R.F.	2	0	0	0	0	0	0	0	0	0	0	0
Dindigul Sub-District, Dindigul District														

32	1	Sirumalai	1	0	0	1	0	0	0	0	0	0	0	0
Nilakkottai Sub-District, Dindigul District														
33	1	Silukkuvarpatti	1	0	1	1	1	1	0	0	1	0	0	1
34	2	Malayagoundanpatti	1	0	0	3	1	0	0	0	0	1	0	0
35	3	Kullalagundu	1	0	0	3	0	0	0	0	0	0	0	0
36	4	Pallapatti	1	0	0	1	0	0	0	0	0	1	0	0
37	5	Ethilodu	1	0	0	2	0	0	0	0	0	0	0	0
38	6	Mattapparai	1	0	1	1	1	1	0	0	1	0	0	1
39	7	Kolladipatti	1	0	0	1	0	0	0	0	0	0	0	0
40	8	Ramarajapuram	1	0	0	1	0	0	0	0	0	1	0	0
41	9	Vilampatti	1	0	0	2	0	0	0	0	0	1	0	0
		total (C)		0	3	31	4	3	0	0	3	9	0	3
		Grand Total (A+B+C)		1	4	33	5	4	0	0	4	10	0	4

**Source: District Primary Census Abstract, Madurai & Dindigul District of Tamilnadu State-2011*

Note : A: Available, NA- Not Available

INFRASTRUCTURAL FACILITIES IN THE STUDY AREA

Sl. No	No. of Villages	Name of village	Tap Water-Treated (Status A(1)/NA(2))	Covered Well (Status A(1)/NA(2))	Hand Pump (Status A(1)/NA(2))	Tube Wells/Bore hole (Status A(1)/NA(2))	Spring (Status A(1)/NA(2))	River/Canal (Status A(1)/NA(2))	Tank/Pond/Lake (Status A(1)/NA(2))	Post Office (Status A(1)/NA(2))	Sub Post Office (Status A(1)/NA(2))	Post And Telegraph Office (Status A(1)/NA(2))	Telephone (landlines) (Status A(1)/NA(2))	Mobile Phone Coverage (Status A(1)/NA(2))	Public Bus Service (Status A(1)/NA(2))	Railway Station (Status A(1)/NA(2))	Commercial Bank (Status A(1)/NA(2))	Cooperative Bank (Status A(1)/NA(2))	Agricultural Credit Societies (Status A(1)/NA(2))
0-2 km,Vadipatti Sub-District, Madurai District																			
1	1	Viralipatti	1	2	2	1	2	1	2	2	2	2	1	1	2	2	2	2	2
2-5 km,Vadipatti Sub-District, Madurai District																			
2	1	Katchiakatti	1	1	1	1	2	1	2	2	1	2	1	1	1	2	2	1	1
3	2	Katchiakatti R.F.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-10 km,Vadipatti Sub-District, Madurai District																			
4	1	Ramayagoundenpatti	1	2	1	1	2	2	2	2	2	2	1	1	1	2	2	2	2
5	2	Nachikulam	1	1	1	1	2	2	2	2	1	2	1	1	1	2	2	1	1
6	3	Thethoor	1	1	1	1	2	2	2	2	1	2	1	1	1	2	2	2	2
7	4	Vaigasipatti	1	2	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2
8	5	Andipatti	1	2	1	1	1	2	1	2	1	2	1	1	1	2	1	2	2
9	6	Chinnamanayakkanpatti	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2
10	7	Thummachampatti	1	2	2	1	2	2	2	2	2	2	1	1	1	2	1	2	2
11	8	Karupatti	1	2	1	1	1	2	2	1	1	1	1	1	2	2	2	1	1
12	9	Ayankurivithurai	1	1	1	2	1	2	2	2	1	2	1	1	1	2	2	2	2
13	10	Kovilkuruvithurai	1	2	2	1	2	1	2	2	2	2	1	1	1	2	2	2	2
14	11	Mannadimangalam	1	1	1	1	1	1	2	2	1	2	1	1	1	2	2	1	1
15	12	Irumbadi	1	1	1	1	2	2	2	2	1	2	1	1	1	1	1	1	1
16	13	Kattakulam	1	2	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2
17	14	Thanichiyam	1	1	1	1	2	2	2	1	1	1	1	1	1	2	1	2	1
18	15	Kodayampatti	1	1	1	1	2	2	2	2	1	2	1	1	1	2	2	2	1
19	16	Kalvelipatti	1	1	1	1	2	2	2	2	1	2	1	1	1	2	2	2	1
20	17	Periyallandaikulam	1	2	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2
21	18	Kuthimeikipatti	1	2	2	2	2	2	2	2	1	2	1	1	1	2	2	2	2
22	19	Kilakarai	1	2	2	2	2	2	2	2	1	2	2	1	1	2	2	2	2
23	20	Kovilpatti	1	1	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2
24	21	Sambakulam	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2
25	22	Nedungulam	1	2	2	1	2	2	2	2	1	2	1	1	1	2	2	2	2
26	23	Thirumalnattam	1	2	2	2	2	2	2	2	1	2	2	1	1	2	2	2	2
27	24	Mullipallam	1	2	1	1	2	1	2	1	2	1	1	1	1	2	2	2	2
28	25	Kovilthenkarai	1	2	2	2	2	2	2	2	1	2	2	1	1	2	2	2	2
29	26	Sirumalai R.F.	1	2	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2
30	27	Sembathi R.F	1	1	2	1	2	2	2	2	2	2	1	1	2	2	2	2	2

31	28	Vaguthumalai R.F.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dindigul Sub-District, Dindigul District																			
32	1	Sirumalai	1	1	2	1	1	1	1	2	1	2	1	1	1	2	2	1	2
Nilakkottai Sub-District, Dindigul District																			
33	1	Silukkuvarpatti	1	1	1	1	2	2	2	1	1	1	1	1	1	2	1	1	1
34	2	Malayagoundanpatti	1	1	1	1	1	2	2	2	1	2	1	1	1	2	2	2	1
35	3	Kullalagundu	1	2	1	1	2	2	2	2	1	2	1	1	1	2	2	2	1
36	4	Pallapatti	1	1	1	1	1	1	2	2	1	1	1	1	1	2	1	1	1
37	5	Ethilodu	1	1	1	1	2	1	2	1	1	1	1	1	1	2	1	2	1
38	6	Mattapparai	1	2	1	1	1	2	2	2	2	2	1	1	1	2	2	2	2
39	7	Kolladipatti	2	2	2	1	2	2	2	2	1	2	1	1	1	2	2	2	2
40	8	Ramarajapuram	1	1	1	1	1	2	2	1	1	1	1	1	1	2	2	1	1
41	9	Vilampatti	1	2	2	2	2	2	2	2	1	1	1	1	1	2	2	2	2

*Source: District Primary Census Abstract, Madurai & Dindigul District of Tamilnadu State-2011

Note : A: Available, NA- Not Available

Status: A(1)/NA(2)



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AMBIENT AIR QUALITY

Project	:	Rough Stone and Gravel Quarry Of Thiru. S. R. Muthupandi
Name of the Location	:	Near Mine Lease Area
Station Code	:	A1

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	07.03.2023	43.2	21.3	4.8	8.6
2	08.03.2023	45.6	22.0	5.4	9.2
3	18.03.2023	40.4	20.6	4.1	7.9
4	19.03.2023	42.8	21.2	4.7	8.5
5	21.03.2023	46.3	22.2	5.5	9.3
6	22.03.2023	43.6	21.4	4.9	8.7
7	01.04.2023	40.8	20.7	4.2	8.1
8	02.04.2023	45.3	21.8	5.3	9.1
9	04.04.2023	42.4	21.1	4.6	8.4
10	05.04.2023	47.2	22.8	5.8	9.6
11	15.04.2023	50.4	23.8	6.4	10.2
12	16.04.2023	46.5	22.4	5.6	9.4
13	18.04.2023	48.8	23.6	6.2	9.9
14	19.04.2023	44.3	21.5	5.1	8.8
15	29.04.2023	49.2	23.7	6.3	10.1
16	30.04.2023	46.8	22.6	5.7	9.5
17	02.05.2023	48.2	23.2	5.9	9.8
18	03.05.2023	42.1	21.0	4.5	8.3
19	13.05.2023	44.8	21.7	5.2	9.1
20	14.05.2023	47.6	23.0	5.9	9.7
21	16.05.2023	48.5	23.4	6.1	9.9
22	17.05.2023	41.6	20.9	4.4	8.2
23	27.05.2023	44.4	21.6	5.1	8.9
24	28.05.2023	41.3	20.8	4.3	8.1
	MIN	40.4	20.6	4.1	7.9
	AVE	45.1	22.0	5.3	9.1
	MAX	50.4	23.8	6.4	10.2

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

Prepared by



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AMBIENT AIR QUALITY

Project	:	Rough Stone and Gravel Quarry Of Thiru. S. R. Muthupandi
Name of the Location	:	Veeralipatti Village
Station Code	:	A2

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	07.03.2023	49.4	23.4	5.5	9.3
2	08.03.2023	47.3	22.6	5.1	8.9
3	18.03.2023	56.2	25.6	6.6	10.4
4	19.03.2023	51.8	24.2	5.9	9.7
5	21.03.2023	45.2	22.1	4.8	8.6
6	22.03.2023	48.8	23.2	5.4	9.2
7	01.04.2023	43.4	21.4	4.5	8.3
8	02.04.2023	45.8	22.2	4.9	8.7
9	04.04.2023	42.8	21.2	4.4	8.2
10	05.04.2023	48.2	23.1	5.3	9.1
11	15.04.2023	46.4	22.4	5.0	8.8
12	16.04.2023	50.2	23.6	5.6	9.4
13	18.04.2023	56.6	25.8	6.7	10.5
14	19.04.2023	52.4	24.4	6.0	9.8
15	29.04.2023	54.2	25.1	6.3	10.1
16	30.04.2023	47.6	22.8	5.2	9.0
17	02.05.2023	53.6	24.8	6.2	10.1
18	03.05.2023	44.6	21.8	4.7	8.5
19	13.05.2023	50.6	23.8	5.7	9.5
20	14.05.2023	54.8	25.2	6.4	10.2
21	16.05.2023	53.1	24.6	6.1	9.9
22	17.05.2023	44.2	21.6	4.6	8.4
23	27.05.2023	55.4	25.4	6.5	10.3
24	28.05.2023	51.2	24.1	5.8	9.6
	MIN	42.8	21.2	4.4	8.2
	AVE	49.7	23.5	5.6	9.4
	MAX	56.6	25.8	6.7	10.5

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

Prepared by



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AMBIENT AIR QUALITY

Project	:	Rough Stone and Gravel Quarry Of Thiru. S. R. Muthupandi
Name of the Location	:	Seminipatti Village
Station Code	:	A3

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	09.03.2023	54.2	26.3	5.6	10.2
2	10.03.2023	50.5	25.3	5.1	9.7
3	16.03.2023	56.1	26.9	5.9	10.5
4	17.03.2023	53.3	26.1	5.5	10.1
5	23.03.2023	48.4	24.7	4.8	9.4
6	24.03.2023	45.6	23.9	4.4	9.1
7	30.03.2023	60.3	27.7	6.3	10.9
8	31.03.2023	51.9	25.7	5.3	9.9
9	06.04.2023	47.7	24.5	4.7	9.3
10	07.04.2023	44.9	23.7	4.3	8.9
11	13.04.2023	54.7	26.5	5.7	10.3
12	14.04.2023	49.8	25.1	5.1	9.6
13	20.04.2023	56.8	27.1	6.1	10.6
14	21.04.2023	52.6	25.9	5.4	9.9
15	27.04.2023	62.2	28.6	6.5	11.6
16	28.04.2023	58.9	27.3	6.1	10.7
17	04.05.2023	55.4	26.7	5.8	10.4
18	05.05.2023	49.1	24.9	4.9	9.5
19	11.05.2023	44.2	23.5	4.2	8.8
20	12.05.2023	47.3	24.3	4.6	9.2
21	18.05.2023	61.4	27.9	6.4	11.3
22	19.05.2023	59.6	27.5	6.2	10.8
23	25.05.2023	51.2	25.5	5.2	9.8
24	26.05.2023	46.3	24.1	4.5	9.1
	MIN	44.2	23.5	4.2	8.8
	AVE	52.6	25.8	5.4	10.0
	MAX	62.2	28.6	6.5	11.6

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

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AMBIENT AIR QUALITY

Project	:	Rough Stone and Gravel Quarry Of Thiru. S. R. Muthupandi
Name of the Location	:	Kulasekarankottai Village
Station Code	:	A4

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	09.03.2023	53.2	27.3	5.6	10.2
2	10.03.2023	58.1	28.5	6.2	10.8
3	16.03.2023	51.6	26.9	5.4	9.9
4	17.03.2023	57.2	28.3	6.1	10.7
5	23.03.2023	62.8	29.5	6.7	11.4
6	24.03.2023	56.4	28.1	6	10.6
7	30.03.2023	50.8	26.7	5.3	9.8
8	31.03.2023	48.4	26.1	5	9.5
9	06.04.2023	52.4	27.1	5.5	10.1
10	07.04.2023	58.8	28.7	6.3	10.9
11	13.04.2023	61.2	29.3	6.6	11.3
12	14.04.2023	55.6	27.9	5.9	10.5
13	20.04.2023	45.2	25.3	4.6	9.1
14	21.04.2023	47.6	25.9	4.9	9.4
15	27.04.2023	64.3	29.9	6.9	12.7
16	28.04.2023	59.6	28.9	6.4	11.1
17	04.05.2023	54.2	27.5	5.7	10.3
18	05.05.2023	46.3	25.5	4.7	9.2
19	11.05.2023	49.2	26.3	5.1	9.6
20	12.05.2023	54.8	27.7	5.8	10.4
21	18.05.2023	63.6	29.7	6.8	11.9
22	19.05.2023	60.4	29.1	6.5	11.2
23	25.05.2023	50.2	26.5	5.2	9.7
24	26.05.2023	46.8	25.7	4.8	9.3
	MIN	45.2	25.3	4.6	9.1
	AVE	54.5	27.6	5.8	10.4
	MAX	64.3	29.9	6.9	12.7

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

Prepared by



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CREATIVE ENGINEERS & CONSULTANTS

(NABET ACCREDITED, NABL ACCREDITED TESTING LABORATORY,
DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY)

AMBIENT AIR QUALITY

Project	:	Rough Stone and Gravel Quarry Of Thiru. S. R. Muthupandi
Name of the Location	:	Kudladampatti Village
Station Code	:	A5

SL.NO	DATE	PM10	PM2.5	SO2	NO2
1	11.03.2023	58.2	27.2	6.6	11.3
2	12.03.2023	53.8	26.0	5.9	10.3
3	14.03.2023	48.4	24.2	5	9.3
4	15.03.2023	50.8	25.0	5.4	9.7
5	25.03.2023	56.8	26.8	6.4	10.7
6	26.03.2023	51.4	25.2	5.5	9.8
7	28.03.2023	47.2	23.8	4.8	9.1
8	29.03.2023	55.6	26.4	6.2	10.5
9	08.04.2023	43.6	22.6	4.2	8.5
10	09.04.2023	49.2	24.4	5.1	9.4
11	11.04.2023	57.4	27.0	6.5	10.8
12	12.04.2023	52.6	25.6	5.7	10.1
13	22.04.2023	46.3	23.4	4.6	8.9
14	23.04.2023	47.8	24.0	4.9	9.2
15	25.04.2023	45.4	23.2	4.5	8.8
16	26.04.2023	46.6	23.6	4.7	9.0
17	06.05.2023	44.2	22.8	4.3	8.6
18	07.05.2023	49.6	24.6	5.2	9.5
19	09.05.2023	54.4	26.2	6.1	10.4
20	10.05.2023	53.2	25.8	5.8	10.2
21	20.05.2023	56.2	26.6	6.3	10.6
22	21.05.2023	52.1	25.4	5.6	9.9
23	23.05.2023	44.8	23.0	4.4	8.7
24	24.05.2023	50.2	24.8	5.3	9.6
	MIN	43.6	22.6	4.2	8.5
	AVE	50.7	24.9	5.4	9.7
	MAX	58.2	27.2	6.6	11.3

Note: BDL – Below Detectable Limit, DL: Detectable Limit.

Prepared by



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CREATIVE ENGINEERS & CONSULTANTS ANNEXURE- 10

(NABET ACCREDITED, NABL ACCREDITED TESTING LABORATORY,
DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY)

WATER QUALITY DATA

Project Name	:	Rough Stone and Gravel Quarry Of Thiru. S. R. Muthupandi	
Location Name	:	Location Code	Location Name
		W1	Near Mine Lease Area
		W2	Veerali Patti Village
		W3	Semini Patti Village
		W4	Kulasekaran Kottai Village

S. No.	Parameter	Unit	W1	W 2	W 3	W 4	*Permissible Limits
1	pH	-	7.59	7.82	7.98	7.87	6.5-8.5
2	Electrical Conductivity	µmhos/cm	1094	920.5	698.9	1319	-
3	Odor	-	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE	AGREEABLE
4	Turbidity	NTU	<1	<1	<1	<1	5.0
5	Total Hardness as CaCO ₃	mg/L	338	310	227	260	600
6	Calcium Hardness CaCO ₃	mg/L	204	159	106	158	-
7	Magnesium Hardness CaCO ₃	mg/L	134	151	121	102	-
8	Calcium Ca	mg/L	81.6	63.6	42.4	63.2	200
9	Magnesium Mg	mg/L	32.2	36.2	29.0	24.5	100
10	Alkalinity CaCO ₃	mg/L	251	194	226	274	600
11	Chloride Cl ⁻	mg/L	202	152	118	390	1000
12	Sulphate SO ₄ ²⁻	mg/L	130	138	45.7	76.8	400

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CREATIVE ENGINEERS & CONSULTANTS

(NABET ACCREDITED, NABL ACCREDITED TESTING LABORATORY,
DEPARTMENT OF INDUSTRIES AND COMMERCE REGISTERED COMPANY)

S. No.	Parameter	Unit	W1	W 2	W 3	W 4	*Permissible Limits
13	Iron Fe	mg/L	0.07	0.03	0.05	0.07	0.3
14	Nitrate NO ₃	mg/L	4.56	3.42	2.68	3.05	45
15	Fluoride F	mg/L	0.36	0.42	0.55	0.48	1.5
16	Total Dissolved Solids	mg/L	665	560	425	802	2000
17	Free Residual Chlorine Cl ⁻	mg/L	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL(D.L-0.2)	1.0
18	Manganese Mn	mg/L	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	0.3

Note: * The water quality of the collected ground water samples were found to be within the prescribed permissible limits of IS: 10500:2012 Norms for Drinking in the absence of an alternative source.

Prepared by



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LAND USE PATTERN OF THE STUDY AREA WITHIN 10 KM RADIUS AROUND THE PROPOSED PROJECT AREA

Sl.No	No. of Villages	Name of village	Total Geographical Area (in Hectares)	Forest Area (in Hectares)	Area under Non-Agricultural Uses (in Hectares)	Barren & Uncultivable Land Area (in Hectares)	Permanent Pastures and Other Grazing Land Area (in Hectares)	Land Under Miscellaneous Tree Crops etc. Area (in Hectares)	Culturable Waste Land Area (in Hectares)	Fallows Land other than Current Fallows Area (in Hectares)	Current Fallows Area (in Hectares)	Total Unirrigated Land Area (in Hectares)	Area Irrigated by Source (in Hectares)
0-2 km,Vadipatti Sub-District, Madurai District													
1	1	Viralipatti	1640.28	1218.09	115.53	2.48	0	1.88	3.17	47.48	126.57	6.23	118.85
		total (A)	1640.28	1218.09	115.53	2.48	0	1.88	3.17	47.48	126.57	6.23	118.85
2-5 km,Vadipatti Sub-District, Madurai District													
2	1	Katchiakatti	2402.35	4.96	312.72	28.26	0	5.78	79.56	515.54	128.36	562.05	765.12
3	2	Katchiakatti R.F.	496.5	496.5	0	0	0	0	0	0	0	0	0
		total (B)	2898.85	501.46	312.72	28.26	0	5.78	79.56	515.54	128.36	562.05	765.12
5-10 km,Vadipatti Sub-District, Madurai District													
4	1	Ramayagoundenpatti	669.74	0	62.51	0	0	45	18.13	180.01	61.48	120.59	182.02
5	2	Nachikulam	473.52	0	122.33	18.12	0	0.39	0.1	75.92	5.66	1.25	249.75
6	3	Thethoor	1246.94	0	117.92	6.57	0	0	176.26	0	228.34	229.65	488.2
7	4	Vaigasipatti	198.71	0	37.6	0	0	0	0	31.32	27.53	33.21	69.05
8	5	Andipatti	190.41	0	41.35	0.59	0	0.91	0.17	62.8	1.72	1.5	81.37
9	6	Chinnamanayakkanpatti	222.76	0	54.57	0	0	0.38	1.04	58.65	11.47	3.4	93.25
10	7	Thummachchampatti	54.83	0	8.94	0	0	0	0	2.36	0	0	43.53
11	8	Karupatti	499.22	0	64.99	0.14	0	0.01	0	13.01	33.16	0.34	387.57
12	9	Ayankurivithurai	299.38	0	50.13	0	0	0	0.05	3.74	11.05	0.02	234.39
13	10	Kovilkuruvithurai	472.7	0	80.87	2.01	0	0.95	1.68	102.11	0	0.45	284.63
14	11	Mannadimangalam	930.35	0	188.14	0	0	0.35	8.75	9.14	95.41	0.06	628.5
15	12	Irumbadi	413.21	0	76.31	0	0	0	0.74	10.78	0	0.21	325.17
16	13	Kattakulam	526.94	0	129.76	0	0	0	0.24	0	16.6	1.39	378.95
17	14	Thanichiyam	1097.36	0	159.08	0	0	0	0	0	284.55	406.26	247.47
18	15	Kondayampatti	581.38	0	62.29	62.67	26.05	59.26	0	123.39	16.99	16.55	214.18
19	16	Kalvelipatti	541.87	0	81.93	0	12.94	0	0	0	141.3	35.3	270.4
20	17	Periya Ilandaikulam	242.39	0	35.23	0	0	0	0	0.81	31.87	30.08	144.4
21	18	Kuthimeikipatti	99.63	0	12.16	0	0	0	0	22.02	12.89	10.53	42.03
22	19	Kilakarai	139.36	0	13.16	0	0	0	0	79.78	1.12	22.14	23.16
23	20	Kovilpatti	413.01	0	64.18	3.55	0	10	7.9	57.24	46.24	100.03	123.87
24	21	Sambakulam	206.07	0	24.5	0	0	0	8.91	9.32	5.93	1.21	156.2
25	22	Nedungulam	245.74	0	50.78	0	0	0	0	15	1.19	0.01	178.76
26	23	Thirumalnattam	161.92	0	18.51	0	0	0	0	15.79	17.99	0.07	109.56
27	24	Mullipallam	880.48	0	200.97	0	0	0	29.74	0	139.11	42.02	468.64
28	25	Kovilthenkarai	9.91	0	6.5	0	0	0	0	1.47	0	0	1.94
29	26	Sirumalai R.F.	7054.3	7054.3	0	0	0	0	0	0	0	0	0
30	27	Sembathi R.F.	1020.41	1020.41	0	0	0	0	0	0	0	0	0
31	28	Vaguthumalai R.F.	2394.99	2394.99	0	0	0	0	0	0	0	0	0
Dindigul Sub-District, Dindigul District													
32	1	Sirumalai	11968.9	0	5726.77	740.96	0	0	1890.09	0	1265.59	2345.49	0

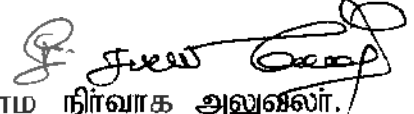
Nilakkottai Sub-District, Dindigul District													
33	1	Silukkuvarpatti	941.12	0	167.56	0.03	0	0	0.05	312.74	0	242.52	218.22
34	2	Malayagoundanpatti	1042.12	0	143.78	11.83	0	0	1.55	368.61	10.79	197.27	308.29
35	3	Kullalagundu	720.37	0	101.99	0	0	0	0.44	209.46	20.38	210.97	177.13
36	4	Pallapatti	1613.18	0	267.16	0	0	0	0	594.23	107.33	100.99	543.47
37	5	Ethilodu	1431.42	0	184.42	0	0	0	2.38	64.48	714.16	48.5	417.48
38	6	Mattapparai	697.85	0	161.93	2.3	0	0	1.88	206.91	50	36.63	238.2
39	7	Kolladipatti	304.34	0	29.93	17.68	0	0	0	77.9	21.68	77.72	79.43
40	8	Ramarajapuram	415.19	0	100.3	9.49	0	0	1.46	100.69	1.74	12.44	189.07
41	9	Vilampatti	576	0	99.6	0.6	0	0	0	0	29.56	65.59	380.65
		total (C)	40998.02	10469.7	8748.15	876.54	38.99	117.25	2151.56	2809.68	3412.83	4394.39	7978.93
		Grand Total (A+B+C)	45537.15	12189.25	9176.4	907.28	38.99	124.91	2234.29	3372.7	3667.76	4962.67	8862.9

**Source: District Primary Census Abstract, Madurai & Dindigul District of Tamilnadu State-2011*

கிராம நிர்வாக அலுவலரின் சான்று

மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம் பட்டா புலன்கள். 34/1A,1B,2, 52/2,3 & 60/2 மொத்தம் 4-20.00 ஹெக்டேரில் மட்டும் 10 வருடங்களுக்கு உதவிஇயக்குனர், புனித்யல மற்றும் சுரங்கத்துறை, மதுரை மாவட்ட ஆட்சியர் அலுவலக வளாகம், மதுரை அவர்களின் செயல்முறை ஆணை எண். 1114/கனிமம்/2021 நாள் 04.03.2023ன் படி திரு. S.R.. முத்துப்பாண்டி, த/பெ. S.ராஜேந்திரன் அவர்கள் மனு செய்துள்ளார்கள். இவர்கள் ஆரம்பிக்க உள்ள உடைகல், ஜல்லி மற்றும் கிராவல் குவாரி இடத்திற்கு செல்ல போதிய அணுகுபாதை வசதி உள்ளது மேலும் நிலத்தை சுற்றி 300மீட்டர் சுற்றளவில் குடியிருப்புகள், கோயில்கள், பள்ளிக்கூடம் ஏதும் இல்லை.

மேற்படி புல எண்கள். மேற்படி கிராம கணக்கு தடை ஆணை புத்தகத்தில் இடம் பெறவில்லை. மேலும் 10கி.மீ. சுற்றளவில் பிற மாவட்ட எல்லையோ, மாநில எல்லையோ இடம்பெறவில்லை. மேற்படி சான்று கனிமவளத்துறைக்கு அளிக்கும் வகைக்காக வழங்கப்படுகிறது.


கிராம நிர்வாக அலுவலர்.
கிராம நிர்வாக அலுவலர்
2, கிராம நிர்வாக அலுவலகம்
வாடிப்பட்டி



**MINING PLAN & ENVIRONMENT MANAGEMENT
PLAN FOR ROUGH STONE & GRAVEL**

(PREPARED UNDER RULE 19 (1) & 22 OF TNMMCR1959

AMENDED 2015)

MINING PLAN SUBMITTED UNDER RULE NO. 41 & 42 OF TNMMCR
AMENDED 2015

**For Obtaining Environmental Clearance from
State Environmental Authority**

PATTA LAND LEASE PERIOD TEN YEARS

LOCATION OF THE AREA

EXTENT : **4.20.00 HECTARE**
S.F. Nos. : **34/1A,1B,2, 52/2,3 & 60/2**
VILLAGE : **VIRALIPATTI**
TALUK : **VADIPATTI**
PANCHAYATH UNION : **VADIPATTI**
DISTRICT : **MADURAI**
STATE : **TAMIL NADU**

APPLICANT

**THIRU. S.R. MUTHUPANDI,
S/o. SRI. S. RAJENDRAN,
325, MELAKKAL MAIN ROAD,
KOCHADAI, ARASARADI,
MADURAI DISTRICT - 625 016.**

PREPARED BY

**G. RAVICHANDRAN, Msc(Geol.),
RECOGNISED QUALIFIED PERSON
REGISTRATION NO: RQP/MAS/197/2005/A**

Shri. S. R. MUTHUPANDI,
S/o. Sri. S. Rajendran,

325, Melakkal Main Road,
Kochadai, Arasaradi,
Madurai South,
Madurai District -625 016.
Mobile No. 99652 87759
e.mail:- vpp.viji82@gmail.com

CONSENT LETTER FROM THE APPLICANT

The Mining Plan in respect of **ROUGH STONE AND GRAVEL** deposit over Extent of 4-20.00 Hectares in S.F. Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu state has been prepared by

Shri. G. RAVICHANDRAN,
RQP/MAS/197/2005/A

I request the District Collector Madurai, State Environmental Authority to make further correspondence regarding the mining plan with the said Recognized Qualified Person in his following addresses:

Shri. G. RAVICHANDRAN, MSc (Geol).,
Vennila Livings, G-H, B – Block,
Reddaivaykkal Vayalur Road,
Trichy - 620 102.
Mobile No. 87783 11236
RQP/MAS/197/2005/A

I hereby undertake that all the modifications, if any made in the mining plan by the Recognized Qualified Person may be deemed to have made with my knowledge and shall be acceptable to me and binding on me in all respects.

Place: Madurai

Signature of the Applicant

Date: .03.2023

S. R. Muthupandi

Shri. S. R. MUTHUPANDI,
S/o. Sri. S. Rajendran,

325, Melakkal Main Road,
Kochadai, Arasaradi,
Madurai South,

Madurai District -625 016.

Mobile No. 99652 87759

e.mail:- vpp.viji82@gmail.com

DECLARATION OF THE APPLICANT

The Mine Plan In Respect of **ROUGH STONE AND GRAVEL** deposit over an Extent of 4-20.00 Hectares in S.F. Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu state has been prepared with full consultation with me. I have understood its contents and I agree to implement the same in accordance with the Laws applicable to mines.

I am also giving further undertaking to plant the species as specified in the afforestation plan to provide Green belt to protect the environmental aspects while quarrying Rough Stone and Gravel in the Patta Land.

Place: Madurai

Signature of the Applicant

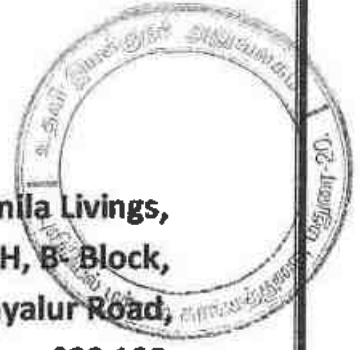
Date: .03.2023

S.R. Muthupandi
S. R. Muthupandi

S.R. Muthupandi

Shri. G. RAVICHANDRAN, MSc (Geol.),
Recognised Qualified Person
Reg. No. RQP/MAS/194/2005/A

Vennila Livings,
G-H, B-Block,
Rettai Vaykkal Vayalur Road,
Trichy - 620 102.
Mobile No. 87783 11236



CERTIFICATE FROM THE RECOGNISED QUALIFIED PERSON

This is to certify that the provisions of the Mines Act, Metalliferous Mines Rules and Regulations, Minor Mineral Conservation and Development Rules, 2010 & Minerals Amended Rules of Tamilnadu Minor Mineral Concession Rule 1959 etc, made there under have been observed in the preparation of Mining Plan for **ROUGH STONE AND GRAVEL** deposit over an Extent of 4-20.00 Hectares in S.F. Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu state.

THIRU. S. R. MUTHUPANDI,
S/o. SRI. S. RAJENDRAN,
325, MELAKKAL MAIN ROAD,
KOCHADAI, ARASARADI,
MADURAI SOUTH,
MADURAI DISTRICT 625 016.

Wherever Specific permission are required , the applicant will approach the concerned authorities of state, central Government and State Environmental Authority officers, for such permission, approvals, exemption or relaxation Standards prescribed by Rules and regulations in respect of miners health and the rules will be strictly implemented.

It is also certified that the information furnished in the mining plan is true and correct to the best of my knowledge.

Place: Trichy - 620 102

Date: .03.2023


G. RAVICHANDRAN

G.RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
MINING GEOLOGIST
RQP / MAS / 197 / 2005 / A
VALID UPTO: 12.12.2025

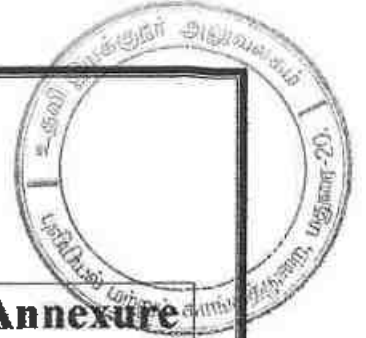


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S.P. WOOD

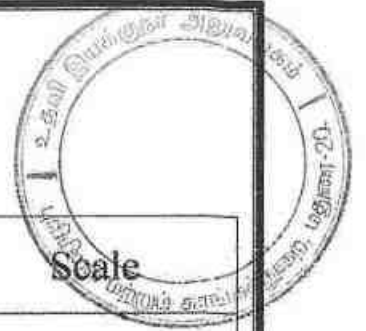
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S.K. M. S.

**MINING PLAN INCLUDING
ENVIRONMENT MANAGEMENT PLAN FOR
ROUGH STONE & GRAVEL QUARRY**



**Over an Extent of 4.20.0 Hectares in S.F. Nos. 34/1A,1B,2, 52/2,3 &
60/2 (Patta Land) in Viralipatti Village, Vadipatti Taluk,
Madurai District, Tamilnadu**

INTRODUCTION

Extracting minor minerals from an area of less than 5 hectares will need environment clearance from the Union ministry of environment and forest (MOEF). The EIA (Environmental Impact Assessment) notification 2006, requires mining projects, including new projects, expansion, modernization, or renewal of mine leases, with lease area of 5 hectare and above irrespective of major or minor mineral to obtain prior environment clearance. Mining projects with lease area of 5 hectares and above but less than 50 hectares are categorized as category 'B' whereas projects with lease area of 50 hectares and above are categorized as category 'A'. The category 'A' projects are to be given clearance by MOEF while category 'B' projects are considered by the respective state-level EIA authority.

The mining plan has been prepared towards the order of Supreme Court of India 27 February, 2012, based on the Supreme court order, Tamilnadu Government , Secretary, Industry Department (NCI) as issued order vide G.O.Ms.No.79 dated 06.04.2015. In this order Tamilnadu Minor Mineral Concession Rule 1959 as amended rule 41 & 42 as the approved mining plan is required to the grant of mining lease and the lessee of existing quarry which has already granted with quarry lease should also obtain environmental clearance from SEIAA, Tamilnadu.

The approved mining plan has to be obtained and prior environment clearance by the committee formed recently by the SEIAA. The government of tamilnadu has formed one committee headed by the chairmen of SEIAA and the nominated members from each department as members. The environment clearance has to be issued by the SEIAA to grant of quarry lease and this mining plan is submitted based on the above orders to obtain environment clearance from SEIAA Tamilnadu committee.

S. K. V. S.

The applicant, Thiru. S.R. Muthupandi, S/o. Sri. S. Rajendran, No.325, Melakkal Main Road, Kochadai, Arasaradi, Madurai District as an individual having good experience and skill on quarrying of Rough Stone and Gravel. He has applied for fresh grant of Quarry lease to the state government over an extent 4-20.0 Hectares in S.F. Nos. 34/1A,1B,2, 52/2,3 & 60/2 (Patta Land) in Viralipatti Village, Vadipatti Taluk, Madurai District, Tamil Nadu.

1. General Information

- a) Name of the applicant : THIRU. S. R. MUTHUPANDI
- b) Address of the Applicant : S/o. SRI. S. RAJENDRAN,
325, MELAKKAL MAIN ROAD,
KOCHADAI, ARASARADI,
MADURAI SOUTH,
MADURAI DISTRICT.
e.mail:- vpp,viji82@gmail.com
- c) Mobile No. : 99652 87759
- d) Status of the applicant : Private Individual
- e) Mineral which the applicant Intends to mine : Rough Stone and Gravel
- f) Precise area communication letter details received from the competent authority of Government : 1114/Mines/2021
Dated : 04.03.2023
- g) Period of Permission / lease to be granted : 10 Years.
- h) Name and address of the RQP /Authorised person preparing the Mining plan : G. Ravichandran,
Vennila Livings, G-H B Block
Rettaivayakkal Vayalur Road,
Trichy - 620 102.
Mobile No. 87783 11236
Registration No : RQP/MAS/197/2005/A

S.P.V.

2. LOCATION

a)

STATE	DISTRICT	PANCHA YATH	TALUK	VILLAGE	S.F.NO	EXTENT (Hectares)
Tamil nadu	Madurai	Vadipatti	Vadipatti	Viralipatti	34/1A,1B,2, 52/2,3 & 60/2 (Patta Land)	4-20.0 Hect

b) Classification of the area : Patta Lands

c) Ownership / Occupancy of the applied area : Own Patta lands
(Surface right)

d) Toposheet No : 58-F/16

Latitude : 10° 06' 28.4"N to 10° 06' 35.7"N

Longitude : 77° 58' 51.5"E to 77° 59' 00.6"E

e) Accessibility of public road / Railway line, : As shown in ROUTE MAP (Plate No. 1A), the applied area can be easily accessible Viralipatti at a distance of 28Kms from Madurai to Didigal road, and then to the applied area at a distance of 2Km towards northeast of Viralipatti. The nearest railway station is Vadipatti at a distance of 6km.

S.P.M.

(0)

Part-A

3. GEOLOGY AND MINEABLE RESERVES

3.1 Topography and general Geology

The area applied for mining lease is a gentle plain terrain and dry lands without any vegetation. The gravel formation is having thickness of 4m.

The rocks in this area belonging to ARCHEAN group of rocks. Below the gravel formation a hard Rough stone Charnockite is noticed. The rocks are Phaneric to medium grained nature. And in these rocks there are mineral constituents of BLUE QUARTS, MICRO CLINE FELDSPAR, HYPERSTHENE and flakes of BIOTITE MICA. The rocks are striking towards North west - South east direction dipping 80° Vertical towards South east direction. The strike length of the deposit on 349m length and 98m width on southern side (PQ-AB section) and 101m length and 76.5m width on northern side (RS-CD section).

3.2 DETAILS OF EXPLORATION

The nearby wells and in the radius of 500m, the earth gravel occur to a thickness of 4m. Below 4m Charnockite (Rough stone) is noticed.

3.3 ESTIMATION OF RESERVES.

Reserves have been calculated based on the cross section method. The strike length of the deposit on 349m with an average width of 98meter on southern side (PQ-AB section) and a strike length of 101m with an average width of 76.5m on northern side (RS-CD section) .

Based on the above data geological reserves and mineable reserves has been calculated for a depth of 34 meter. The reserves have been computed for depth of 0 to 4meter gravel and 4 to 34 meter in Rough stone The details of reserves are shown in annexure I and in Geological Plan & Section Plate No IV.

SL NO	TYPE OF RESERVES	Gravel + Rough stone in Cub.m
1	Geological reserves	14,25,569 Cu.m.
2	Mineable reserves	5,86,419 Cu.m.
3	Bench locked & 7.5m boundary barrier reserves	8,39,150 Cu.m.

4. MINING

The area is under working by Semi-Mechanised open cast method. The bench height of the quarry is maintained to the height of boom of the machine used for digging and excavation. In the area applied for mining lease a boundary barrier of 7.5 meters has been left in all direction and 10meters has been left on seasonal odai side.

During first year the mining operation will be commenced from south to north a strike length of 50m, width 80.5m on southern portion (PQ-AB section). The gravel formation will be removed up to 4m and below 4m depth, roughstone will be removed 4 benches of each 5m depth will be made to achieve the planned production quantity. During second to sixth year the mining operation will be further northern side of the applied lease area (PQ-AB section) on a strike length of 45m and width of 80.5m. The gravel formation will be removed up to 4m and below 4m depth, roughstone will be removed 4 benches of each 5m depth will be made to achieve the planned production quantity. During seventh year the mining operation will be further northern side of the applied lease area (PQ-AB section) up to safety barrier on a strike length of 50m and width of 80.5m. The gravel formation will be removed up to 4m and below 4m depth, roughstone will be removed 3 benches of each 5m depth will be made to achieve the planned production quantity. The eighth to tenth year the quarry advancement will be made northern portion (RS-CD section) and below the first seven years working make benches of each 5m depth in rough stone will be removed to achieve the planned production quantity as shown in the Production Plans and Section (Refer Plate V & V-A).

During every year working the bench width will be maintained not less than the height of the bench with a bench slope of 60° for safe reversal and working of machinery and movement of trucks.

During 10 years working the following quantity of rough stone and gravel will be removed and the details are given below.

YEAR WISE PRODUCTION SCHEDULE

YEAR	GRAVEL IN CU.M	ROUGHSTONE IN CU.M
I	16100	42875
II	14490	49950
III	14490	49950
IV	14490	49950
V	14490	49950
First 5 Year Total	74,060	2,42,675
VI	14490	49950
VII	18998	44967.5
VIII	9440	51207.5
IX	10266	38147.5
X	-----	32217.5
2nd 5year Total	53,194	2,16,490
10Year Total	1,27,254	4,59,165

Machineries used

The blasted ROM will be excavated by TATA HITACHI EX200. For drilling tractor mounted compressor of 175 cfm will be used matching with jackhammers. For drilling two Tc drill rods of 32 mm dia will be used and the drill rod depends upon the depth of 4m to 6m drilling. Normally drill rods of .9m length and 1.5m length will be used in the quarry. For transportation 10 tons tippers will be used for transporting ROM and reject from the quarry. The ground water table in this area is ranging from 40 to 45 meter.

S. P. WOOD

A diesel pump will be kept for dewatering rain water during rainy season. For manual production the labours will be provided with pick Axe, Spade, crowbar, iron basket and hammer.

DETAILS OF MACHINERIES TO BE USED IN QUARRY

Sl. NO	NAME OF THE EQUIPMENT	CAPACITY	REQUIRED
1	Excavator	TATA HITACHI (EX200)	1
2	Tipper	10 Tonnes	7
3	Tractor compressor for drilling	175 CFM	1
4	Dewatering pump	5 Hp Diesel pump	1

MARKETING OF ROUGH STONE AND GRAVEL

The boulders will be marketed to the nearby crushers for producing crusher aggregates. The gravel & reject hard boulders will be marketed to filling and foundation works for construction works. The crusher aggregate will be marketed to nearby areas.

CONCEPTUAL MINING PLAN

Conceptual mining plan is prepared in a scale of 1:2000 in an object of long-term systematic development of bench layouts. In addition to consider the above factors, to avoid re-handling, setting roads, to determine ultimate pit limit depth of mining and ultimate pit slope, selection of sites for construction of infrastructures etc.,

Ultimate pit limit dimension:

The ultimate pit size is designed based on certain practical factor such as the economical depth of mining safety zones permissible area etc. The ultimate pit of the mine is given as under

SECTION	LENGTH (M)	WIDTH (M)	DEPTH (M)
PQ-AB	334.0	80.5	34.0
RS-CD	83.5	59.0	24.0

However during extraction of ROM bench will be 5m height with a slope of 60° for proper quarrying. After quarrying the mined out area will be used as water reservoir for making artificial recharge factor to the nearby areas.

The Conceptual Plan and Sections is shown in Plate No. VI. The mineable reserves calculated for a depth of 34meter a total Roughstone of 4,59,165m³ and Gravel 1,27,254m³. Based on an average production of maximum quantity of 55,000 m³ to 60,500 m³/year. The life of the mine will be 5,86,419/55,000 m³= 10 years. The available reserve below 34m can be mined in the next quarry renewal period after 10 years. Since the entire gravel which occurs to a depth of 4meter is planned for excavation during the present ten years working.

S. Prasad

5. BLASTING

5.1 BLASTING PATTERN

The massive formation shall be broken in to pieces of portable size by drilling and blasting using jack hammers and shot holes blasting. Powder factor of explosives for breaking such hard rock shall be in the order of 1.8 to 2.0 cub.m. Blasting parameter proposed to be adopted for shot holes shall be

Spacing of 0.9 m, burden 0.60m and depth 1.5m

Output per hole = 0.9 m X 0.60m X 1.5m = 0.810 cub.m

Output per hole will be 0.810 cub.m with 90% blasting efficiency

Quantity of explosive required to blast one hole with a powder factor of 1.8

Explosive required will be $0.810 / 1.8 = 0.450$ kg per hole

In the above quantity booster Cap sensitive explosives will be one third 0.150 kg per hole

Daily consumption of explosive will depend upon the number of shot holes drilled.

5.2 TYPES OF EXPLOSIVES

Following explosives are recommended for efficient blasting with safe practice

Sl.No	Description	Class/ Division	Type	Size
1	Slurry Explosive	Class - 3	Nitro compound mixer	25mm X 0.125 kg
2	Delay Detonators	Class - 6	Ordinary and elect. (OD & ED)	Standard size of IDL
3	Safety Fuse	Class - 6 Div - 1	Blue sump fuse coil of 10 meter each	

5.3 MEASURES PROPOSED TO MINIMISE GROUND VIBRATION DUE TO BLASTING

There are no villages near by the area applied for mining lease. To control ground vibration delay electric detonator will be used.

5.4 STORAGES AND SAFETY MEASURES

The proposed rate of production is about 195m³ or 23loads / day of 10tonnes capacity of ROM boulder in one day with average working days of 25 in a month.

The applicant has made an agreement with explosive dealer S.M.Veeramani, Arms Ammunitions & Explosive dealer, No.5, Kannara Street, Dindigul District, who is having explosive licence bearing no: E/SC/TN/22/186 (E10529) received from chief controller of explosive, Chennai. The owner of the Firm made agreement with Sri. S.R. Muthupandi to make necessary safety practice to blast in his licence and supply of explosives will be made in Form 22 as specified by Indian Explosives Act 1884. (Annexure enclosed)

After blasting no explosives will be kept in the mine area and the unused explosives will be taken up by the explosive dealer. Before blasting the explosives will be carried by the dealer in his own explosive van and the unused quantity will be returned to the explosive van for keeping the explosive in his Magazine. Before blasting men and animals will be cleared in a surrounding distance of 500m and three sirens will be made before blast and after completing blasting a long siren will be given. Safety guards with red flags will be posted on all the four side direction.

S. R. Muthupandi

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6. MINE DRAINAGE

From the local enquiry the ground water table in this area is ranging from 40 to 45m. The open dug wells are noted around the applied lease area. The wells are having a depth ranging from 14 to 16m and the wells are dry. There are also no joints or fractures in the hard rock. The area attains rain fall during northeast monsoon. Hence there will be no adverse effect by the mining to the nearby areas.

Sl. No.	Details	Direction	Distance (m)	Depth(m)	Water level
1.	Seasonalodai	West	10	0.25	Dry
2.	Seasonalodai	East	10	0.30	Dry
3.	Well	East	220	14.0	Dry
4.	Well	East	280	13.0	Dry
5.	Well	East	430	15.0	Dry
6.	Urani	East	290	1.5	Dry
7.	Urani	South	490	1.2	Dry

7. OTHER PERMANENT STRUCTURES

There is no hospital or Primary school, village temples and primary health centres within 500m radius of the quarry. There is no river, lake nearby this area. There are also no historical monuments nearby this area. There are also no worship places, reserve forest, social forest, and wild life sanctuaries near this area. The water bodies are dry in all the season.

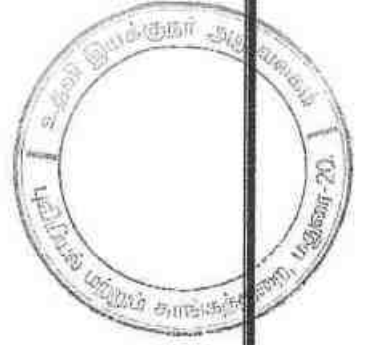
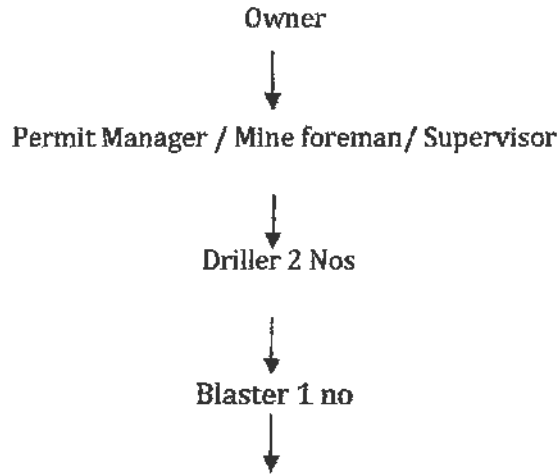
SL. NO	DIRECTION	VILLAGE	HABITATION	DISTANCE
1	North	Gullalagundu	80 houses	8 km
2	South	Viralipatti	200 houses	1.5 km
3	East	Ellaiyur	300 houses	5km
4	West	Pandiyarajapuram	50 houses	5 km

Nearest infrastructures

SL. No	Name of infrastructure	Name of village	Distance from area applied for M.L
1	Post office	Vadipatti	4 Km
2	Police station	Vadipatti	4 Km
3	Town	Vadipatti	4 Km
4	DSP office	Samayanallur	20 Km
5	Register office	Vadipatti	4 Km
6	Hospital	Vadipatti	4 Km
7	School	Viralipatti	1.5 Km
8	Railway station	Vadipatti	4 Km
9	Airport	Madurai	50 km
10	Sea Port	Thoothukudi	180 km

8. EMPLOYMENT POTENTIAL & WELFARE MEASURES

ORGANISATION CHART



Unskilled persons for segregation loading of boulders and helpers 4 nos

The workers will be provided with drinking water facility, sanitation facility in the proposed office building. A bore well will be drilled near the office building.

First aid and labour health facility will be arranged from the nearby hospital at Vadipatti. All safety equipment's will be provided for the persons employed in the mine. The supervisor will be provided with mobile phone to contact the owner or any officials during emergency time.

SAFETY AND SOCIAL SECURITY MEASURES

Safety equipment's to be provided for the persons employed in the mines.

1. Safety helmet approved by Director General of mines Safety
2. Nose Mask
3. Ear Plug for machine operators and drillers
4. Safety shoes as specified by Director General of Mines Safety
5. Safety Goggles for drillers
6. Safety Belt and safety rope approved by Director General Mines of Safety - for labourers, working in the mine for removing danger over hang and undercut boulders. Employment of child labour will be strictly prohibited in the mines. All persons employed in the mines will be provided with Group Insurance System from a Govt. Recognised insurance Agency.

The applicant has given Notary Affidavit for Non employment of child labour directly or indirectly while operating the mine. The Affidavit is enclosed in Annexure.

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PART - B

9. ENVIRONMENT MANAGEMENT PLAN

9.1 Existing land use pattern

The area applied for mining lease is a gentle plain terrain and having dry lands with no. vegetation available nearby this area. From the study of the nearby well the ground water table is ranging from 40 to 45m.

The area will obtain rain fall during NE monsoon in summer the climate will be very hot and the temp will be up to 42°C.

Present land use planning (break up along with green belt etc).-

S.No.	Land Use Category	At the end of life of mine
1.	Mining \Excavation	3-18.0 hectares
2.	Storage of Top Soil	0.00.0 hectares
3.	Sorting and Mineral Dressing Yard	0.00.0 hectares
4.	Infrastructure & Road	0.08.0 hectares
5.	Afforestation(Greenbelt& Plantation)	0-72.0 hectares
6.	Rain Water Storage	3-18.0 - (After closure of mine)
7.	Undisturbed Area	0.10.0 hectares
8.	Fencing	0.12.0 hectares
	TOTAL	4.20.0 hectares

The area applied for mining lease is a plain terrain and having dry lands. The patta land is used for quarrying Rough Stone blue metal. Infra structure will be provided in the patta land. First aid, sanitation facilities is also provided in the office building. The Patta Land is with Surface right.

9.2 Water regime:

Ground water occurrence in this area is below 40m depth. The quarrying is restricted up to 34m below Ground Level. Hence the quarry operation will not be affected by the ground water.

9.3 Flora and Funna:

There are no trees observed in the area. Thorny bushes, neem and palm are found in around the area, No plants of botanical interest or animals of zoological interest are noticed. There is no cultivation, plantation or agriculture found within the vicinity of the area.

9.4 Climatic condition

The area receives rainfall of about 850mm/per annum and the rainy season is mainly from Oct - Jan during North East monsoon. The summer is hot with maximum temperature of 42°C and winter encounters a minimum temperature of 23°C.

9.5 Human settlement

There is no hospital or Primary school, villages, temples and primary health centres within 500m radius of the quarry. There is no river, lake nearby this area. There are also no historical monuments nearby this area. There are also no worship places, reserve forest, social forest, and wild life sanctuaries near this area. The water bodies are dry in all the season.

SL. NO	DIRECTION	VILLAGE	HABITATION	DISTANCE
1	North	Gullalagundu	80 houses	8 km
2	South	Viralipatti	200 houses	1.5 km
3	East	Ellaiyur	300 houses	5km
4	West	Pandiyarajapuram	50 houses	5 km

Basic human welfare Amenities such as Health centre, schools, communication facilities, and commercial centres etc., are available at Vadipatti located at a distance of 4Km on the southern side of the area.

9.6 Plan for Air, Dust suppression

The air quality will be affected by the Suspended Particle Matter (SPM) generated by the blasting, Jack hammer drilling, Loading and unloading during the Rough stone quarry operation.

The following Mitigations measures will be carried out:

- Mist Water spraying will be carried out by means of water sprinklers to suppress the dust emission in the Haul roads.
- Vegetations will be formed around the quarry to trap the dust.
- Avoiding spillages during the transportation.

AMBIENT AIR QUALITY (AAQ):

The ambient air quality depends upon the emission sources, meteorological conditions and the background concentration of specific contaminants. The principal objective of the Ambient Air Quality Monitoring (AAQM) is to assess the existing levels of ambient air quality in and around the lease area for assessing the impact on air quality due to future mining activity in the region.

With the above objective, the following parameters were analysed at the sampling locations established in the study area.

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- ❖ Particulate Matter (PM₁₀)
- ❖ Particulate Matter (PM_{2.5})
- ❖ Sulphur Dioxide
- ❖ Oxides of Nitrogen
- ❖ Carbon Monoxide

DESIGN CRITERIA FOR AMBIENT AIR QUALITY MONITORING STUDY NETWORK:

Ambient Air quality has been assessed through a net-work of 3 ambient air quality stations. The following methodology has been considered for design of ambient air quality monitoring network in the area.

- ❖ Topography / terrain of study area.
- ❖ Populated areas within study area
- ❖ Residential /sensitive areas within study area
- ❖ Predominant wind direction and wind pattern

9.7 Plan for noise level control:

Shallow holes of 32mm diameter and 1.5m depth will be drilled and to control ground vibration conventional low power explosives such as slurry explosives, delay electric detonator will be used for rough stone. Hence ground vibration and noise pollution will be minimal and restricted within the quarry workings. There are no villages near by the area applied for mining lease.

The drivers will be strictly instructed to move the vehicle during the transportation not exceed 40km per hour. Sentries with flags & whistle will posted in village junction and populated area to control and regulate traffic.

9.8 Environment impact assessment statement

The mining plan proposed is for a production of Rough stone with involving deep hole drilling and heavy blasting permission as per MMR1961 Regulation 106 (2b) against Director General of Mines Safety, Chennai Region. Such limited mining activity is not likely to cause any impact adversely on environment as for as pollution of air, water and noise is concentrated, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF. It is B2 category mine. For the average production of 55,000 m³ to 60,000 m³/year is planned. Besides No working Quarries and No villages in the surrounding radius of 500 metres.

S. R. S.

Details of quarries around 500m radius of proposed quarry

Quarries	Sl. no	Name	Village	s.f.no.	Extent (Ha)	Distance(m)
Existing	1.	Nil	Nil	Nil	—	—
Abandoned	2.	Nil	Nil	Nil	—	—
Present proposed	3.	S.R.Muthupandi	Viralipatti	34/1A,1B,2, 52/2,3 & 60/2	4-20.0	applied
Total extent in Hectares					4-20.0 Ha.	

To avoid environmental pollution during transport of Charnockite (Roughstone) to various destinations the loaded truck will maintain a speed of 40 km / hour. The loaded truck will be covered with tarpaulin cover to avoid dust generation during vehicle movement on the roads. Hence there will not be any environment impact to the mining area are to the nearby villagers.

9.10 Proposal for reclamation of land affected during mining activities and at the end of mining (refilling / fencing)

In the proposed mining plan only a maximum depth of 34m has been envisaged as workable depth for safe & economic mining during the lease period. Hence after quarry reaches ultimate pit limit (for this lease period of 34m depth) fencing will be constructed around the quarries pits to prevent inherent entry of the public and cattle. There is no proposal for reclamation and rehabilitation.

9.11 Proposal of Afforestation

The proposal of afforestation and land use is shown in Plate No: VI & VIII. The detail of proposed afforestation is given below.

Plantation	Type	No. of Trees	Spacing	Area (Hectares)	Survival
I YEAR	Neem	20	6m x 6m	0-07.2	80%
II YEAR	Neem	20	6m x 6m	0-07.2	80%
III YEAR	Neem	20	6m x 6m	0-07.2	80%
IV YEAR	Neem	20	6m x 6m	0-07.2	80%
V YEAR	Neem	20	6m x 6m	0-07.2	80%
VI YEAR	Neem	20	6m x 6m	0-07.2	80%
VII YEAR	Neem	20	6m x 6m	0-07.2	80%
VIII YEAR	Neem	20	6m x 6m	0-07.2	80%
IX YEAR	Neem	20	6m x 6m	0-07.2	80%
X YEAR	Neem	20	6m x 6m	0-07.2	80%
TOTAL		200		0-72.0 Ha	

The applicant will arrange for watering the plants for effective survival of the plant. The afforestation will be properly monitored by the persons employed in the mines. The applicant has also given Notary Affidavit to make afforestation as specified with mining plan to make the area as green belt and to protect the environment.

9.12 Proposal for water management

	DETAILS	SOURCE	PROVISION QUANTITY/DAY
A	Drinking water & Domestic	From existing bore well & water vender	1.500KLD
B	Dust Suppression-water sprinkling	From existing bore well	2.300 KLD
C	Green belt	From the water tanker and the bore well	1.200 KLD
		TOTAL	5.000KLD

9.13 PROPOSED FINANCIAL ESTIMATE BUDGET FOR (EMP) ENVIRONMENT MANAGEMENT

Sl.no.	Details	All Figures are in Rs.
1.	<p><u>LAND INVESTMENT COST</u> Total Applied SF Nos. 34/1A,1B,2, 52/2,3 & 60/2 =4.20 Ha. As per Government of Tamilnadu Market Value as per document. Rs.34770 (34/1A) + 137555 (34/1B)+247450(34/2)+ 56120(52/2) + 61610(52/3)+ 67650(60/2) = 6,05,155</p>	Rs.6,05,155
2.	<p><u>FIXED INVESTMENT COST</u> i) Labour shed ii) First aid room and accessories iii) Toilet room with septic tank Facility construction & sanitary facility iv) Drinking water for staffs & Labour from water vendors</p> <p style="text-align: right;">TOTAL FIXED INVESTMENT COST =</p>	<p>Rs. 1,00,000 Rs. 1,50,000 Rs. 50,000 Rs. 1,50,000 Rs. 4,50,000</p>
3.	<p><u>OPERATIONAL COST</u> (Siegnorage fee per unit for transport permit to be paid to state government Rs.26/m³ at the time of marketing will be paid by Purchaser only.) i) <u>Machinery to be used for Quarrying & Cost</u> Total Number of Excavator = 1No Total operational cost = 9,774Ex.hours x Rs.1000 = (The Hired vehicle charges per hour inclusive of diesel around Rupees 1000/hour) (The Excavators of 0.90cu.m. bucket capacity and tippers of 10/20T's capacity will be used. The quantity of Diesel consumption is based on the working hours of excavators {filling factor and loading cycling}. In the open cast quarry project excavators are proposed to quarry). (One excavators will be excavate = 60cu.m/Hr. For ten years Project = 5,86,419cu.m./60cu.m. = 9,774 excavator hours) {Diesel Consumption Tata Hitachi (Model EX200) = 9Ltr/Hr Diesel Price around = Rs.100 (At present scenario) Hence 9,774 Hours x 9Ltrs/Hr = 87,966Ltrs of HSD will be utilized for the 10year.}</p>	Rs. 97,74,000

Sl.no.	Details	All Figures are in Rs.
ii)	<p>Compressor with Drilling Cost</p> <p>Total Number of compressor with Drilling Machine used for quarrying = 1No (One Compressor with Drilling Machine will be Drilling = 100Cu.m./Hr.)</p> <p>The Hired vehicle charges per hour inclusive of diesel around Rs 750/Hour = 4,592 hours x Rs.750 = (For ten year project Roughstone = 4,59,165cu.m./100cu.m. = 4,592 Running Hours) {Diesel Consumption = 8Ltr/Hr Diesel Price around = Rs.100 (At present scenario) Hence 4,592 Hours x 8Ltrs/Hr = 36,736 Ltrs of HSD will be utilized for the 10year.}</p>	Rs. 34,44,000
iii)	<p>Explosives Cost</p> <p>Total cost for the Ten year Roughstone = (4,59,165Cu.m./100Cu.m.) x Rs. 700 = (For ten year project explosives-charging and blasting used for Rs.700/100Cu.m. Total drilling material for quarrying = 4,59,165Cu.m. of Roughstone for ten years.)</p>	Rs. 32,14,155
TOTAL OPERATIONAL COST = (Machinery operational +Drilling with Compressor + Explosives)		1,64,32,155

4. EMP COST				
Sl.no.	Details	Cost per Month (Rs.)	Total Cost per Year (Rs.)	Total cost for 10 years lease period (Rs.)
i)	Greenbelt development (plantation & maintenance)	1,400	16,800	1,68,000
ii)	Fencing arrangements & wind net arrester	-	-	2,00,000
iii)	Occupational health safety kits (mask, helmet, sanitizer, gloves, etc.,)	1,500	18,000	1,80,000
iv)	Water sprinkling using own tractor for the area (Control of Dust suppression)	2,000	24,000	2,40,000
v)	Environmental parameters testing expenses fees for every six months a. Ambient Air monitoring b. Water analysis c. Noise Monitoring d. Soil testing e. Ground Vibration Monitoring	15,000 (bi-annual)	30,000	3,00,000
Total EMP Cost=				Rs. 10,88,000

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1.	Land Investment Cost	Rs. 6,05,155
2.	Fixed Investment Cost	Rs. 4,50,000
3.	Operational Cost	Rs. 1,64,32,155
4.	EMP Cost	Rs. 10,88,000
TOTAL PROJECT COST		Rs. 1,85,75,310
CER @ 2% Project cost Carrying out provisions of Drinking water with dispenserations Toilet/sanitary especially for girls students In Viralpatti Government School, Vadipatti Taluk, Madurai District.		Rs. 3,71,510

10. MINE CLOSURE PLAN

- The mined out area will be suitably fenced to avoid inadvertent entry of men and animal to the quarry area.
- After closure of mine the applicant will adhered the rules and regulations governed by state and central government
- All safety measures and mitigations will be maintained properly in the mined out area. Security persons will be engaged in all three shifts to ensure safety in the quarry.


The progressive mine closure plan is enclosed in Plate No. VIII.

11. ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT

- Permission will be obtained from the District Mines Office to extract the Rough Stone from the Boundary barriers and for slopes.
- Care and precautionary measures will be taken for the safety of workers as per Mines Rules-1955 and Mines Acts-1952.
- The applicant will endeavor every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.
- Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

PLACE: TRICHY

DATE: .03.2023


Signature of the RQP

G.RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
MINING GEOLOGIST
RQP / MAS / 197 / 2005 / A
VALID UPTO: 12.12.2025

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ANNEXURE- I

GEOLOGICAL RESERVES

MINERAL	SECTION	LENGTH (M)	WIDTH (M)	DEPTH (M)	VOLUME IN CUM	TOTAL RESERVE IN CUM
GRAVEL	PQ - AB	349	98.0	4.0	136808	1,67,714
	RS - CD	101	76.5	4.0	30906	
ROUGH STONE	PQ - AB	349	98.0	30.0	1026060	12,57,855
	RS - CD	101	76.5	30.0	231795	
TOTAL GEOLOGICAL RESERVES					14,25,569 Cu.m.	

MINEABLE RESERVES

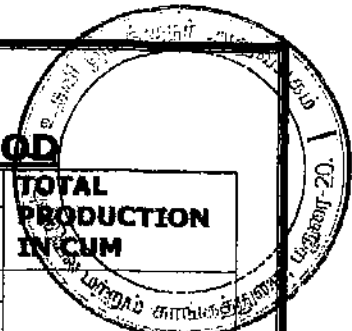
MINERAL	SECTION	BENCH	LENGTH (M)	WIDTH (M)	DEPTH (M)	VOLUME IN CUM	TOTAL VOLUME IN CUM
GRAVEL	PQ - AB	I	334.0	80.5	4.0	107548.0	1,27,254
	RS - CD	I	83.5	59.0	4.0	19706.0	
ROUGH STONE	PQ - AB	II	324.0	70.5	5.0	114210.0	4,59,165
	PQ - AB	III	314.0	60.5	5.0	94985.0	
	PQ - AB	IV	304.0	50.5	5.0	76760.0	
	PQ - AB	V	294.0	40.5	5.0	59535.0	
	PQ - AB	VI	284.0	30.5	5.0	43310.0	
	PQ - AB	VII	274.0	20.5	5.0	28085.0	
	RS - CD	II	73.5	49.0	5.0	18007.5	
	RS - CD	III	63.5	39.0	5.0	12382.5	
	RS - CD	IV	53.5	29.0	5.0	7757.5	
	RS - CD	V	43.5	19.0	5.0	4132.5	
TOTAL MINEABLE RESERVES						5,86,419 Cu.M.	


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ANNEXURE - II

PRODUCTION SCHEDULE FOR 10 YEARS PERIOD



YEAR	SECTION	BEN CH	LENGTH (M)	WIDTH (M)	DEPTH (M)	VOLUME IN CUM		TOTAL PRODUCTION IN CUM
						GRAVEL	ROUGH STONE	
I	PQ-AB	I	50	80.5	4.0	16100	----	58,975
	PQ-AB	II	45	70.5	5.0	----	15862.5	
	PQ-AB	III	40	60.5	5.0	----	12100.0	
	PQ-AB	IV	35	50.5	5.0	----	8837.5	
	PQ-AB	V	30	40.5	5.0	----	6075.0	
II	PQ-AB	I	45	80.5	4.0	14490	----	64,440
	PQ-AB	II	45	70.5	5.0	----	15862.5	
	PQ-AB	III	45	60.5	5.0	----	13612.5	
	PQ-AB	IV	45	50.5	5.0	----	11362.5	
	PQ-AB	V	45	40.5	5.0	----	9112.5	
III	PQ-AB	I	45	80.5	4.0	14490	----	64,440
	PQ-AB	II	45	70.5	5.0	----	15862.5	
	PQ-AB	III	45	60.5	5.0	----	13612.5	
	PQ-AB	IV	45	50.5	5.0	----	11362.5	
	PQ-AB	V	45	40.5	5.0	----	9112.5	
IV	PQ-AB	I	45	80.5	4.0	14490	----	64,440
	PQ-AB	II	45	70.5	5.0	----	15862.5	
	PQ-AB	III	45	60.5	5.0	----	13612.5	
	PQ-AB	IV	45	50.5	5.0	----	11362.5	
	PQ-AB	V	45	40.5	5.0	----	9112.5	
V	PQ-AB	I	45	80.5	4.0	14490	----	64,440
	PQ-AB	II	45	70.5	5.0	----	15862.5	
	PQ-AB	III	45	60.5	5.0	----	13612.5	
	PQ-AB	IV	45	50.5	5.0	----	11362.5	
	PQ-AB	V	45	40.5	5.0	----	9112.5	
FIRST FIVE YEAR PRODUCTION (I TO V)						74060	242675	3,16,735
VI	PQ-AB	I	45	80.5	4.0	14490	----	64,440
	PQ-AB	II	45	70.5	5.0	----	15862.5	
	PQ-AB	III	45	60.5	5.0	----	13612.5	
	PQ-AB	IV	45	50.5	5.0	----	11362.5	
	PQ-AB	V	45	40.5	5.0	----	9112.5	
VII	PQ-AB	I	59	80.5	4.0	18998	----	63,965.5
	PQ-AB	II	54	70.5	5.0	----	19035.0	
	PQ-AB	III	49	60.5	5.0	----	14822.5	
	PQ-AB	IV	44	50.5	5.0	----	11110.0	
VIII	RS-CD	I	40	59.0	4.0	9440	----	60,647.5
	PQ-AB	V	39	40.5	5.0	----	7897.5	
IX	PQ-AB	VI	284	30.5	5.0	----	43310.0	48,413.5
	RS-CD	I	43.5	59.0	4.0	10266	----	
	RS-CD	II	73.5	49.0	5.0	----	18007.5	
	RS-CD	III	63.5	39.0	5.0	----	12382.5	
X	RS-CD	IV	53.5	29.0	5.0	----	7757.5	32,217.5
	PQ-AB	VII	274	20.5	5.0	----	28085.0	
	RS-CD	V	43.5	19.0	5.0	----	4132.5	
NEXT FIVE YEAR PRODUCTION (VI TO X)						53194	216490	2,69,684
PRODUCTION						127254	459165	5,86,419

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G. Ravichandran
G. RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
 MINING GEOLOGIST

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ANNEXURE - III

Base Line Studies

The base line studies is prepared for Rough stone & Gravel quarry Vivalipatti Village, Vadipatti Taluk, Madurai District, over an extent of 4-20.00 hectares in SE Nos. 34/1A,1B,2, 52/2,3 & 60/2. The proposed quarry lease will be granted for a period of 10 years. The total planned production quantity for 10 year in rough stone 4,59,165cum, & gravel 1,27,254cum.

The project in the area will provide a quit considerable employment to nearby village which in turn enhance the earning source of the nearby villagers. The comprehensive base line studies and standards constitute of collecting data on ambient air quality, dust fall rate, water quality, soil analyze, noise level and ground vibration study in the area proposed for quarrying along with flora and fauna statistics.

General approach to Environment:

The environment studies besides data comprise of the features present in the site area it includes environmental features such as forest area, conservation area, water bodies, industries, wild life and fauna place of historic and importance etc.,

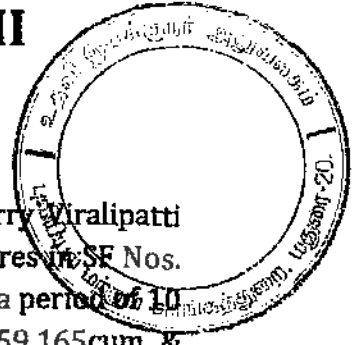
1. Air environment
2. Noise environment
3. Water environment
4. Ecology (biological and cultural environment)
5. Physical environment

Air Environment

The rough stone quarry is non toxic which does not emit any undesirable pollution in the form of solid, liquid and gas. The dust emitted during the transportation of vehicles and the drilling will be carried out in wet condition to prevent dust into air and the haul roads will be periodically sprinkled with mist water spray to prevent dust into the atmosphere. The area in and around is quit fresh and the impact on air environment will always be under control and will be monitored. No processing or beneficiation is proposed except quarrying hence the impact on air will be controlled, monitored and mitigated.

Noise Environment

The noise will be only during blasting. For controlling noise proper and adequate explosives will be charged to the short holes. The machineries will be properly made preventive maintenance to avoid much noise during machinery working. Except these features there are no possibilities of producing much noise during quarry working.



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Ground vibration studies

The vibration source only through the movement of vehicles where the frequency is also very less. Hence the vibration is well below the standard permissible by MOEF. Displacement, velocity and acceleration of the three kinematics descriptions which are to be studied to describe ground motion. The peak particle velocity is the more referred since the area is virgin there is no significant measured velocity found in the area. During blasting delay electric detonators will be used to minimize vibration during blasting.

Water Environment

Geo - physical investigation was carried out by adopting schlumberger method. To find out the lateral variation and vertical in homogeneity's. The hydro - geological report is enclosed.

Soil analysis

The area applied for mining lease is flat terrain with little undulations covered by gravel for a depth of 4m followed by massive rock. The gravel is loose and natural growths to trees or plants are negligible except small bushes.

Climate

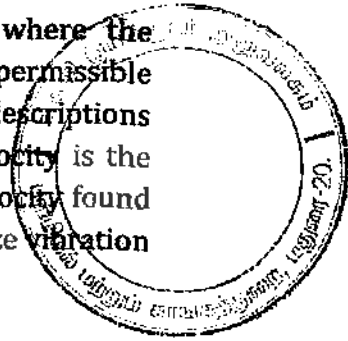
The area receives annual average rain fall of 825mm during southwest monsoon (June - Sep) and northeast monsoon (Oct - Dec). Temperature falls between 42°C - 23°C. Rainy season is three months in a year from October to December during monsoon. Temperature is maximum during May - June in a year.

Flora and fauna in and around the area

In small quarrying projects like this which involves very limited operations like secondary drilling and blasting conservation of flora and fauna along with ecology does not have significant impact of the overall eco system. A detailed survey related to flora and fauna was observed physically, the in and around area was seasonal dry cultivation, predominantly maize, cotton and millet and naturally grown trees like neem tree, karuvelam (juliflora) etc. The fauna is goat, rat crow, cat, ant, cow and squirrel etc.

Conclusion The base line studies relents no hazardous levels of dust and noise and prevailing at the project area. A well implemented environment management plan as discussed in the mining plan will help in mitigation of the adverse effects due to quarry activities.

The flora in the area is only small thorny bushes as much of the area exhibits flat terrain. No trees are proposed to uproot for the project and new trees will be planted on boundary barrier which will act as acoustic sound barriers. Environment care and attitude preventing environment is instructed to the proponent and advice to carry out and mitigate the minor impacts due to quarrying.



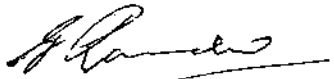
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HYDROGEOLOCAL SURVEY REPORT



1. Name of the Applicant : Sri, S. R. Muthupandi, S/o. Sri. S. Rajendran.
2. Major/ minor mineral : Roughstone and gravel (minor mineral)
3. Location :
- i). Survey nos : 34/1A,1B,2, 52/2,3 & 60/2
 - ii). Village : Viralipatti
 - iii). Taluk : Vadipatti
 - iv). District : Madurai
4. Total Extent : 4-20.00 Hectares
5. Category of ground water : safe category (over all district)
6. Geomorphology : plain terrain covered with gravel thorny bushes and no vegetations and the slope of the land is very gentle towards west.
7. Geology : weathered gravel & massive charnockite.
8. Climate : Tropical
9. Average annual rainfall : 825mm
10. Nearby recharging sources : There are water recharging source of Seasonal odai on east & west side. These odai are mostly dry in all seasons and will have water staged only during heavy rainy season. Due to monsoon failure the odai cannot be taken as a recharge source.
11. Water level in near area : 40 to 45 meters from the local enquire.
12. Quality of the ground water : Not potable CaCl, NaCl, & CaCo₃.
13. Hydro- geological conditions: The hard rock area allows rain water seepage Only in weathered, fissured and fracture zones And the ground water storage and Movement is very poor in the study area.
14. Geophysical study : Geophysical Electrical Resistivity survey conducted in schlumberger configuration (VES) method using IPI2win software for a depth of 45m. The VES-Interpreted curve and Layers by using IPI2win software shows occurrence of hard rock formations below 4m depth.

S. R. Muthupandi


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RQP / MAS / 197 / 2005 / A
VALID UPTO: 12.12.2025

1. GEOPHYSICAL ELECTRICAL RESISTIVITY SURVEY: THE SCHLUMBERGER ARRAY

Geophysical Electrical Resistivity survey conducted in schlumberger Configuration (VES) method using IPI2win Software. The Schlumberger array is an array where four electrodes are placed in line around a common midpoint. The two outer electrodes, A and B, are current electrodes, and the two inner electrodes, M and N, are potential electrodes placed close together. With the Schlumberger array, for each measurement the current electrodes A and B are moved outward to a greater separation throughout the survey, while the potential electrodes M and N stay in the same position until the observed voltage becomes too small to measure (source). At this point, the potential electrodes M and N are moved outward to a new spacing. As a rule of the thumb, the reasonable distance between M and N should be equal or less than one-fifth of the distance between A and B at the beginning. This ratio goes about up to one-tenth or one-fifteenth depending on the signal strength. The Schlumberger array is commonly used for vertical electrical sounding (VES) for groundwater and aggregate minerals. Vertical electrical sounding (VES) using the Schlumberger array provides better resolution.

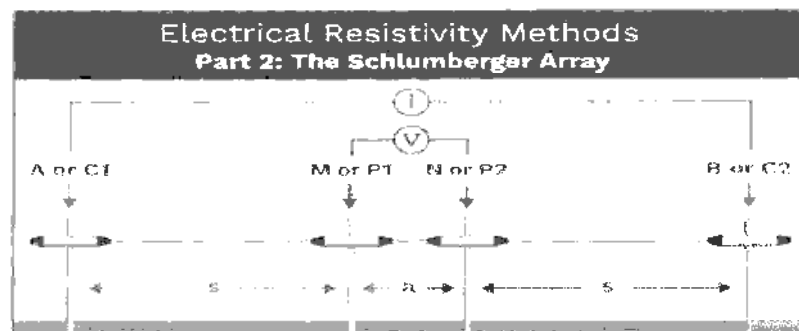


Fig No:1, Schlumberger Array

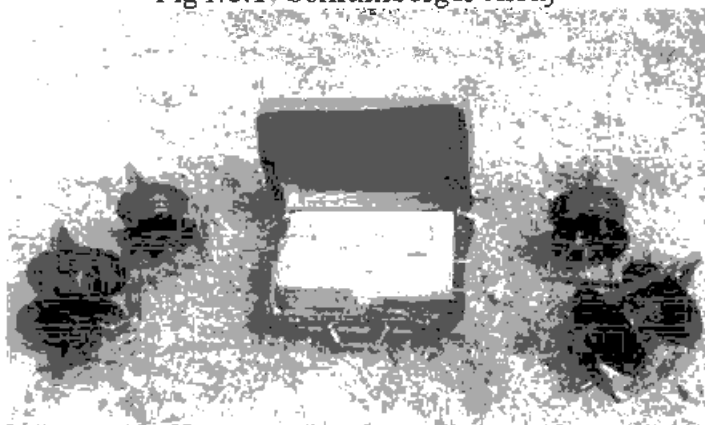


Fig No: 2. Model DDR-3 Electrical Resistivity Meter

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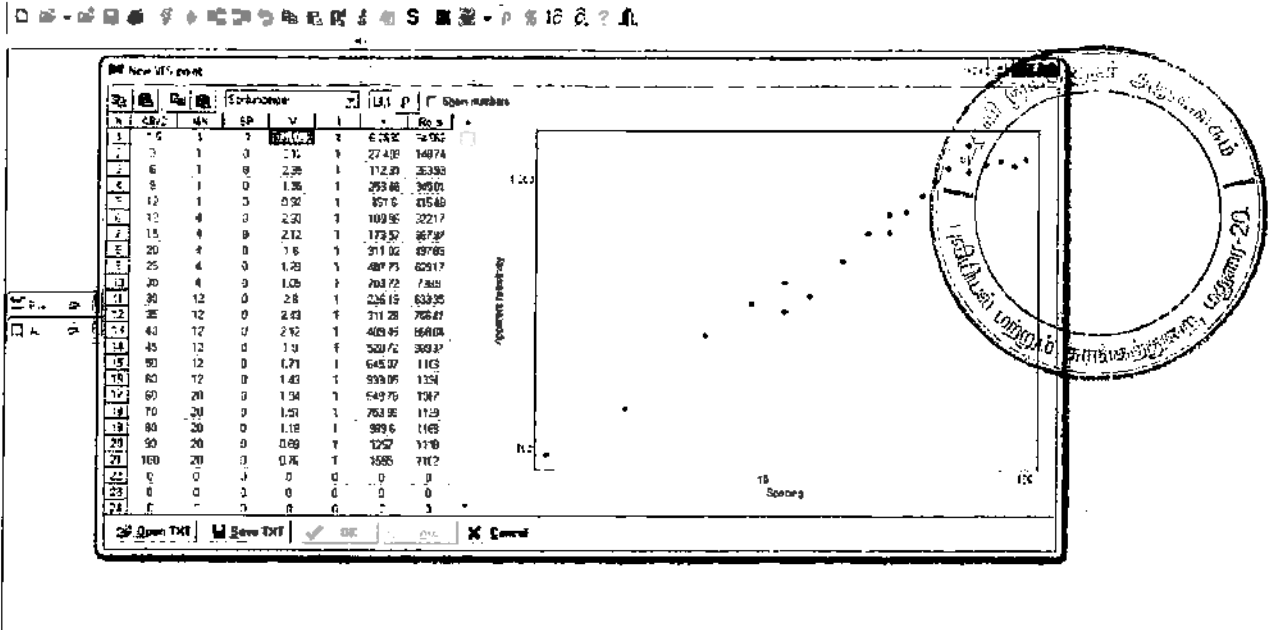


Figure No.3. Image showing VES data sheet by using IPI2win software.

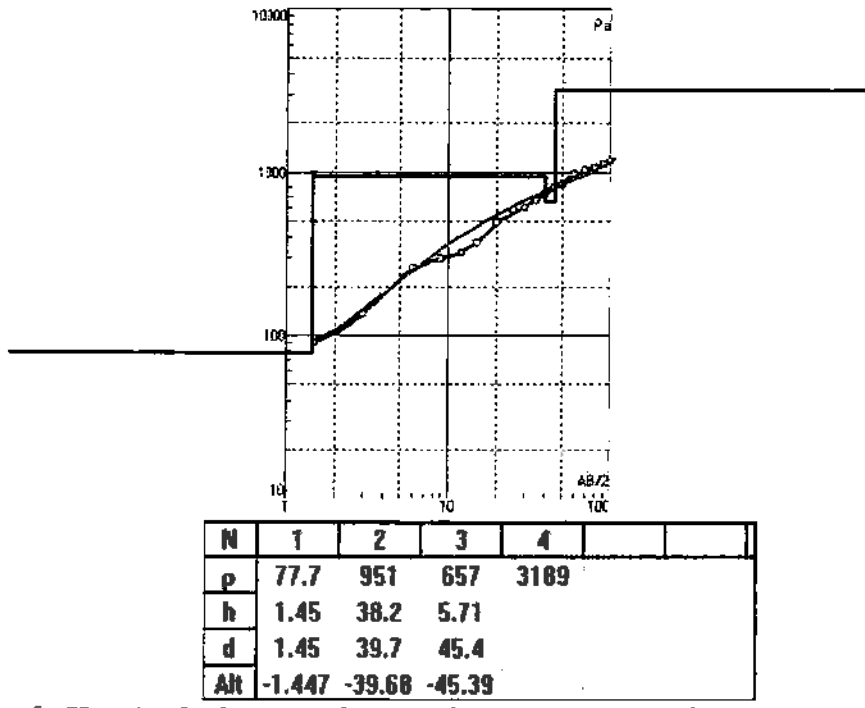



Figure No.4. Vertical electrical Sounding Interpreted curve & Layers by using IPI2win software

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VES- INFERRED STRATA

- 0- 4m : Gravel with (Resistivity 78 Ohm)
- 4m -40m : Hard Charnockite formation (951 Ohm. Resistivity)
- 40m-45m : Charnockite rock with water potential fracture (Resistivity 657 Ohm.)
- Above 45m : Massive charnockite formation. (Resistivity 3189 Ohm.)

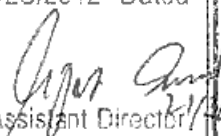
The presence of soil with gravel shows low resistivity followed by Charnockite formation with high resistivity is indication of the poor water bearing capacity at shallow depth. The deeper layer is having curve break at 45m with comparatively less resistivity shows possibility of fracture with water table. Above 45m the resistance is high (3189 Ohm) shows massive formation of charnockite at depth.



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RQP / MAS / 197 / 2005 / A
VALID UPTO: 12.12.2025

This is approved subject
to be stipulate on
Approval
1114/mimcs/2022
03/2023

This Mining Plan is approved based on incorporation of the particulars specified under guidelines given by the Commissioner of Geology and Mining (f/c.) Roc. No. 3868/LC/2012 Dated 19-11-2012



Assistant Director
Geology and Mining
Madurai

Swamy
1114

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



G. Ravichandran

अर्हताप्राप्त व्यक्ति के रूप में मान्यता प्रमाण पत्र
 (खनिज शिवायत नियमावली, 1960 के नियम 22सी के तहत)
CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON
 (Under Rule 22C of Mineral Concession Rules, 1960)

श्री जी. रविचंद्रण, वेन्निला लिविंग्स, जी-एच, बी ब्लॉक, रेट्टैवयकाल, वयलूर रोड, तिरुची - 620 102, जिनका फोटो और हस्ताक्षर ऊपर दिया हुआ है, तथा जिनोंने अपनी अर्हता और अनुभव का संतोषजनक साक्ष्य दिया है, को खनन योजना तैयार करने हेतु खनिज शिवायत नियमावली 1960 के नियम 22सी के तहत अर्हताप्राप्त व्यक्ति के रूप में मान्यता प्रदान की जाती है।

Shri. G. Ravichandran, Vennila Livings, G-H, B block, Rettaivaykkal Vayalur Road, Trichy - 620 102, 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 / MAS / 197 / 2005 / A

यह मान्यता 10 वर्षों की अवधि के लिए मान्यता है जो दिनांक 11.12.2025 को समाप्त होगी।
 This recognition is valid for a period of 10 years ending on 12.12.2025.

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 : 13.11.2015

G. Ravichandran

G. RAVICHANDRAN, M.Sc., P.G.D., M.E.M.,
 MINING GEOLOGIST
 RQP / MAS / 197 / 2005 / A
 VALID UPTO: 12.12.2025

[Signature]
 क्षेत्रीय खान नियंत्रक/ Regional Controller of Mines
 भारतीय खान ब्यूरो/ Indian Bureau of Mines
 चेन्नई क्षेत्र/ Chennai Region

[Signature]
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புவியியல் மற்றும் சுரங்கத்துறை

ந.க.எண்.1114/கனிமம்/2021,

உதவி இயக்குநர் அலுவலகம்,
மாவட்ட ஆட்சியர் அலுவலக வளாகம்,
மதுரை.

நாள்: 04.03.2023.

குறிப்பாணை

பொருள்: கனிமங்களும், குவாரிகளும் - சிறுகனிமம் - உடைகல் மற்றும் கிராவல் - மதுரை மாவட்டம் - வாடிப்பட்டி வட்டம் - விராலிப்பட்டி கிராமம் - புல எண்கள். 52/2 (0.37.00), 52/3 (0.41.00), 34/1A (0.23.00), 34/1B (0.91.00), 60/2 (0.50.00) மற்றும் 34/2 (1.78.00) - 4.20.0 ஹெக்டேர் பரப்பு நிலத்தில் 10 வருடங்களுக்கு உடைகல் மற்றும் கிராவல் குவாரி உரிமம் வழங்கல் - சரியான பரப்பு (Precise Area) தேர்வு செய்யப்பட்டது - சுரங்கத்திட்டம் மற்றும் மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்ப்பிக்க கோருவது - தொடர்பாக.

- பார்வை:
1. திரு.S.R.முத்துப்பாண்டி, த/பெ.S.ராஜேந்திரன், கோச்சடை, மதுரை என்பவரின் விண்ணப்பம் நாள். 23.07.2021.
 2. மதுரை வருவாய் கோட்டாட்சியர் கடிதம் ந.க.எண். 3724/2021/அ, நாள்.10.08.2021.
 3. வாடிப்பட்டி வட்டார வளர்ச்சி அலுவலரின் கடிதம் ந.க.எண்.971/2021/அ4, நாள்.02.09.2021
 4. மதுரை மாவட்ட நகர் ஊரமைப்பு அலுவலரின் கடிதம் ந.க.எண்.2763/2021/ம.மா, நாள்.23.09.2021
 5. புவியியல் மற்றும் சுரங்கத்துறை, உதவி இயக்குநர் புலத்தணிக்கை அறிக்கை, நாள்.03.03.2023.
 6. 1959-ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 41 மற்றும் 42.
 7. அரசாணை எண்.169 தொழில் (எம்.எம்.சி.1) துறை, நாள்: 04.08.2020.
 8. தொடர்புடைய ஆவணங்கள்.

மதுரை மாவட்டம், கோச்சடை, மேலக்கால் மெயின் ரோடு, எண். 325, என்ற முகவரியில் குடியிருந்து வரும் திரு.S.R.முத்துப்பாண்டி, த/பெ.S.ராஜேந்திரன் என்பவர் மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம், புல எண்கள். 52/2 (0.37.00), 52/3 (0.41.00), 34/1A (0.23.00), 34/1B (0.91.00), 60/2 (0.50.00), மற்றும் 34/2 (1.78.00) மொத்தப் பரப்பு 4.20.0 ஹெக்டேரில் 10 வருடங்களுக்கு உடைகல் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வழங்க கேட்டு பார்வை 1-ல் காணும் விண்ணப்பத்தினை சமர்ப்பித்துள்ளார்.

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மதுரை, வருவாய் கோட்டாட்சியர் மற்றும் புவியியல் மற்றும் சுரங்கத்துறை, உதவி இயக்குநர் ஆகியோரின் அறிக்கையில் வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம், புல எண்கள். 52/2, 52/3, 34/1A, 34/1B, 60/2, மற்றும் 34/2, மொத்தம் 4.20.0 ஹெக்டேர் பரப்பு நிலங்கள், பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), ராஜேந்திரன் மகன் முத்துப்பாண்டி (2), பிரேம்சந்தர் மகன் ஸ்ரீராம் (3), பழனிச்சாமி மகன் விஜயகார்த்திக் (4), ஆகிய நான்கு நபர்களின் பேரில் கூட்டுப் பட்டாவாக உள்ளது என்றும், கூட்டுப் பட்டாதாரர் விண்ணப்பதாரர் திரு.முத்துப்பாண்டி என்பவருக்கு 15 வருடங்களுக்கு உடைகல் குவாரி அமைத்துக்கொள்ள சம்மதம் தெரிவித்து ஒப்பந்தம் செய்துள்ளனர் என அறிக்கையில் தெரிவித்துள்ளார்.

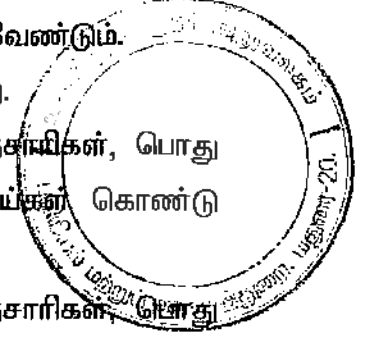
மேற்படி, விண்ணப்பிக்கப்பட்ட புலங்களை சுற்றிலும் 300 மீட்டர் சுற்றளவில் குடியிருப்புகள், பள்ளிகள், கோயில்கள், மசூதிகள், சுடுகாடு ஏதும் இல்லை. 50 மீட்டர் சுற்றளவில் தேசிய / மாநில நெடுஞ்சாலைகள், ஆறுகள், கட்டிடங்கள், உயர் /தாழ்வழுத்த மின்கம்பிகள் இல்லை. உயர்வகை மரங்கள் ஏதுவும் இல்லை.மேலும், வனத்துறையால் பாதுகாக்கப்பட்ட பகுதியாக அறிவிக்கப்பட்ட சரணாலயங்கள், தேசிய பூங்காக்கள் சுற்றுச்சூழல் உணர் திறன் மிக்க பகுதிகள் (ECO-SENSITIVE ZONE), 60 மீட்டர் சுற்றளவில் காப்பு காடுகள், 500 மீட்டர் சுற்றளவில் அருங்காட்சியக துறையின் மூலம் பாதுகாக்கப்பட்ட பகுதிகளாக அறிவிக்கப்பட்ட இடங்கள் மற்றும் வரலாற்று சின்னங்கள் ஏதும் இல்லை. புலங்களுக்கு சென்று வர பாதை வசதி உள்ளது என அறிக்கை செய்து, பின்வரும் நிபந்தனைகளுக்கு உட்பட்டு குவாரி உரிமம் வழங்க பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்:

- 1) அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீ பாதுகாப்பு இடைவெளி விடுத்து குவாரி செய்தல் வேண்டும்.
- 2) விண்ணப்ப புல எண்கள்.34/1B , 34/2-ல் மேற்கில் செல்லும் ஓடைக்கு 10மீ பாதுகாப்பு இடைவெளி விடத்து குவாரி செய்ய வேண்டும்.
- 3) புல எண்கள்.52/2 மற்றும் 52/3-ல் கிழக்கில் தென்வடலாக செல்லும் ஓடைக்கும் 10மீ பாதுகாப்பு இடைவெளி விடத்து குவாரி செய்ய வேண்டும்.
- 4) பொதுமக்கள் / விவசாய நிலங்களுக்கு பாதிப்பு ஏற்படாத வகையில் தகுதி வாய்ந்த அங்கீகரிக்கப்பட்ட நபர்கள் மூலம் வெடிமருந்துகள் சேமிக்கப்பட்டு குவாரியில் வெடித்தல் வேண்டும். குவாரியில் குறைந்த சக்தி கொண்ட வெடி மருந்துகளை பயன்படுத்தல் வேண்டும்.
- 5) சுரங்கத்திட்டம் மற்றும் சுற்றுச்சூழல் தடையில்லாச் சான்று குத்தகை உரிமம் வழங்குவதற்கு முன் சமர்ப்பிக்க வேண்டும்.

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- 6) குவாரியில் வேலை செய்யும் தொழிலாளர்கள் தொழிலாளர் நலவாரியம் மற்றும் காப்பீடு திட்டத்தில் பதிவு செய்து தொழிலாளர் நலன் பேண்பட வேண்டும்.
- 7) குழந்தை தொழிலாளர்களை குவாரி பணியில் அமர்த்தக் கூடாது.
- 8) கனிமங்களை வாகனங்களில் கொண்டு செல்லும் போது பாதசாரிகள், பொது மக்கள் மற்றும் பிற வாகனங்கள் பாதிக்காதவண்ணம் தார்பாய்கள் கொண்டு மூடி எடுத்துச் செல்ல வேண்டும்.
- 9) கனிமங்களை வாகனங்களில் கொண்டு செல்லும் போது பாதசாரிகள், பொது மக்கள் மற்றும் பிற வாகனங்கள் பாதிக்காத வண்ணம் தார்பாய்கள் கொண்டு மூடி எடுத்துச் செல்ல வேண்டும்.



எனவே, துறை அலுவலர்களின் பரிந்துரையினை ஏற்றும் நிபந்தனைகளுக்கு உட்பட்டும், மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம், புல எண்கள். 52/2 : (0.37.00), 52/3 (041.00), 34/1A (0.23.00), 34/1B (0.91.00), 60/2 (0.50.00), மற்றும் 34/2 (1.78.00) மொத்தப்பரப்பு 4.20.0 ஹெக்டேர் பரப்பு நிலத்திற்கு 1959-ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்: 19 மற்றும் 20-ன்படி 10 (பத்து) ஆண்டுகளுக்கு உடைகல் குவாரி உரிமம் வழங்க தகுதி வாய்ந்த நிலப்பரப்பாக (Precise area) கருதப்படுகிறது.

தமிழ்நாடு சிறுகனிம சலுகை விதிகள்-1959 விதி எண்:41ன்படி குவாரிப்பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்கத் திட்டத்தினை (Mining Plan) 90 தினங்களுக்குள் சமர்ப்பிக்குமாறும், விதி எண்: 42-ன்படி மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் (State Level Environmental Impact Assessment Authority) இசைவினைப் பெற்று சமர்ப்பிக்குமாறும் மனுதாரர் திரு.S.R.முத்துப்பாண்டி கேட்டுக் கொள்ளப்படுகிறார்.


 உதவி இயக்குநர்(பெர்),
 புவியியல் மற்றும் சுரங்கத்துறை,
 மதுரை.

பெறுநர்

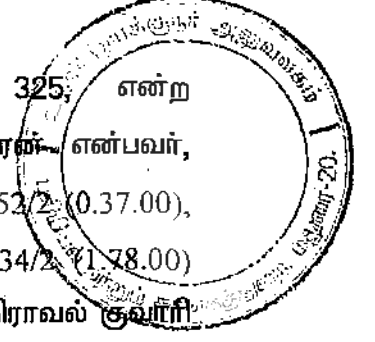
திரு.S.R.முத்துப்பாண்டி,
 த/பெ.S.ராஜேந்திரன்,
 325, மேலக்கால் மெயின்ரோடு,
 கோச்சடை, மதுரை

நகல்

உறுப்பினர் செயலர், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம் (SEIAA), சென்னை.

இட ஆய்வறிக்கை

(நாள்:03.03.2023)



மதுரை மாவட்டம், கோச்சடை, மேலக்கால் மெயின் ரோடு, எண். 325, என்ற முகவரியில் குடியிருந்து வரும் திரு.S.R.முத்துப்பாண்டி, த/பெ.S.ராஜேந்திரன் என்பவர், மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம், புல எண்கள். 52/2 (0.37.00), 52/3 (041.00), 34/1A (0.23.00), 34/1B (0.91.00), 60/2 (0.50.00), மற்றும் 34/2 (1.78.00) மொத்தப் பரப்பு 4.20.0 ஹெக்டேரில் 10 வருடங்களுக்கு உடைகல் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வேண்டி 1959-ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்.19-இன்படி விண்ணப்பம் செய்திருந்தார். விண்ணப்ப புலங்கள் 03.03.2023 தினத்தன்று ஆய்வு செய்யப்பட்டது.

விண்ணப்பிக்கப்பட்ட புல எண்.34/1A ஆனது பட்டா எண்.810-ன்படி திரு. பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), திரு.ராஜேந்திரன் மகன் முத்துப்பாண்டி (2), திரு.பிரேம்சந்தர் மகன் ஸ்ரீராம் (3) ஆகியோரின் பெயரில் கிராமக் கணக்கில் கூட்டுப்பட்டாவாகவும், புல எண்கள். 52/2, 52/3, 34/1B, 60/2, 34/2 ஆகியவை பட்டா எண்.852-ன்படி திரு.பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), திரு.பழனிச்சாமி மகன் விஜயகார்த்திக் (2), திரு.ராஜேந்திரன் மகன் முத்துப்பாண்டி (3), திரு.பிரேம்சந்தர் மகன் ஸ்ரீராம் (4) ஆகியோரின் பெயரில் பதிவாகியுள்ளது விராலிமலை கிராம ஆவணங்கள் மற்றும் வருவாய் கோட்டாட்சியரின் அறிக்கையில் தெரியவருகிறது. விண்ணப்பதாரர் திரு.S.R.முத்துப்பாண்டி என்பவர் மேற்படி புல எண்களில் கற்குவாரி உரிமம் பெற்று கற்களை வெட்டி எடுத்துக்கொள்ள நில உரிமையாளரிடம் ஆணையறுதி ஆவணம் நோட்டரி பப்ளிக் முன்னிலையில் ஏற்படுத்திக் கொண்டுள்ளார்.

விண்ணப்பிக்கப்பட்டுள்ள புலங்கள் புஞ்சை வகைப்பாடுடைய தரிசு நிலங்களாகும். புலங்களில் உள்ள மேல் மண் மற்றும் கிராவல், அகற்றப்பட்ட குழிகள் உள்ளது. புலங்கள் அனைத்தும் ஒன்றோடு ஒன்று தொடர்ச்சியாக உள்ளது. புலத்தில் சிதைந்த பாறைகளை (Weathered Rock) தொடர்ந்து சார்னகைட் (Charnockite) எனப்படும் கடின பாறைகள் (Hard rock) உள்ளது புலத்தில் உள்ள குழிகளை ஆய்வு செய்ததில் தெரிய வருகிறது. கடினபாறைகளில் காணப்படும் வேறுபட்ட நிறங்கள் (Different in colours), இணைப்புகள் (Joints), பிளவுகள், கீரல்கள் (Cracks) வெடிப்புகள் மற்றும் மாறுபட்ட அளவு கொண்ட கனிமங்கள் காரணமாக இப்பாறைகளில் மெருகேற்றக் கூடிய வண்ண கற்களை (Polished Granite / Blocks) உற்பத்தி செய்ய இயலாது. இவ்வகை பாறைகளில் இருந்து வெட்டி எடுக்கப்படும் கற்களிலிருந்து கட்டிடப்பணிகள் மற்றும் சாலை / இரயில்வே பணிகளுக்கு தேவைப்படும் கற்கள், ஜல்லிகள் மற்றும் எம்-சாண்ட் ஆகியவற்றை உற்பத்தி செய்ய இயலும்.

S.R.முத்துப்பாண்டி

விண்ணப்பிக்கப்பட்ட புலங்களை சுற்றிலும் 300 மீட்டர் சுற்றளவில் குடியிருப்புகள், பள்ளிகள், கோயில்கள், மசூதிகள், சுடுகாடு ஏதும் இல்லை. 50 மீட்டர் சுற்றளவில் தேசிய / மாநில நெடுஞ்சாலைகள், ஆறுகள், கட்டிடங்கள், உயர் /தாழ்வழுத்த மின்கம்பிகள் இல்லை. உயர்வகை மரங்கள் ஏதுவும் இல்லை.மேலும், வனத்துறையால் பாதுகாக்கப்பட்ட பகுதியாக அறிவிக்கப்பட்ட சரணாலயங்கள், தேசிய பூங்காக்கள் சுற்றுச்சூழல் உணர் திறன் மிக்க பகுதிகள் (ECO-SENSITIVE ZONE), 60 மீட்டர் சுற்றளவில் காப்பு காடுகள், 500 மீட்டர் சுற்றளவில் அருங்காட்சியக துறையின் மூலம் பாதுகாக்கப்பட்ட பகுதிகளாக அறிவிக்கப்பட்ட இடங்கள் மற்றும் வரலாற்று சின்னங்கள் எதும் இல்லை. புலங்களுக்கு சென்று வர பாதை வசதி உள்ளது. புலங்களில் மேற்கு மற்றும் வடகிழக்கு எல்கையில் சிறிய ஓடை செல்கிறது.

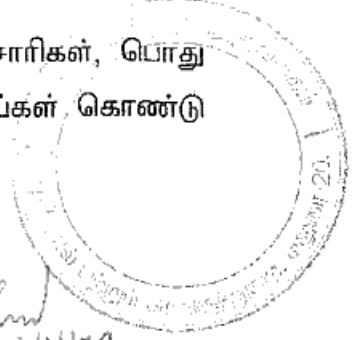
எனவே திரு.S.R.முத்துப்பாண்டி என்பவரின் கோரிக்கையினை ஏற்று மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம், புல எண்கள். 52/2 (0.37.00), 52/3 (041.00), 34/1A (0.23.00), 34/1B (0.91.00), 60/2 (0.50.00). மற்றும் 34/2 (1.78.00) மொத்தப் பரப்பு 4.20.0 ஹெக்டேரில் 10 வருடங்களுக்கு உடைகல் குவாரி குத்தகை உரிமம் 1959-ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்.19(1), 20-இன்படி பின்வரும் நிபந்தனைகளுக்குட்பட்டு வழங்க பரிந்துரை செய்கிறேன்.

நிபந்தனைகள்:

- 1) அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீ பாதுகாப்பு இடைவெளி விடுத்து குவாரி செய்தல் வேண்டும்.
- 2) விண்ணப்ப புல எண்கள்.34/1B , 34/2-ல் மேற்கில் செல்லும் ஓடைக்கு 10மீ பாதுகாப்பு இடைவெளி விடத்து குவாரி செய்ய வேண்டும்.
- 3) புல எண்கள்.52/2 மற்றும் 52/3-ல் கிழக்கில் தென்வடலாக செல்லும் ஓடைக்கும் 10மீ பாதுகாப்பு இடைவெளி விடத்து குவாரி செய்ய வேண்டும்.
- 4) பொதுமக்கள் / விவசாய நிலங்களுக்கு பாதிப்பு ஏற்படாத வகையில் தகுதி வாய்ந்த அங்கீகரிக்கப்பட்ட நபர்கள் மூலம் வெடிமருந்துகள் சேமிக்கப்பட்டு குவாரியில் வெடித்தல் வேண்டும். குவாரியில் குறைந்த சக்தி கொண்ட வெடி மருந்துகளை பயன்படுத்தல் வேண்டும்.
- 5) சுரங்கத்திட்டம் மற்றும் சுற்றுச்சூழல் தடையில்லாச் சான்று குத்தகை உரிமம் வழங்குவதற்கு முன் சமர்ப்பிக்க வேண்டும்.
- 6) குவாரியில் வேலை செய்யும் தொழிலாளர்கள் தொழிலாளர் நலவாரியம் மற்றும் காப்பீடு திட்டத்தில் பதிவு செய்து தொழிலாளர் நலன் பேண்பட வேண்டும்.
- 7) குழந்தை தொழிலாளர்களை குவாரி பணியில் அமர்த்தக் கூடாது.

S. R. Murthy
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- 8) கனிமங்களை வாகனங்களில் கொண்டு செல்லும் போது பாதசாரிகள், பொது மக்கள் மற்றும் பிற வாகனங்கள் பாதிக்காதவண்ணம் தார்பாய்கள் கொண்டு மூடி எடுத்துச் செல்ல வேண்டும்.
- 9) கனிமங்களை வாகனங்களில் கொண்டு செல்லும் போது பாதசாரிகள், பொது மக்கள் மற்றும் பிற வாகனங்கள் பாதிக்காத வண்ணம் தார்பாய்கள் கொண்டு மூடி எடுத்துச் செல்ல வேண்டும்.



[Handwritten Signature]
உதவி இயக்குநர் (பொ),
புவியியல் மற்றும் சுரங்கத்துறை,
மதுரை.

[Handwritten Signature]
S. R. Mani



இந்திய அரசாங்கம்

Unique Identification Authority of India

செயலாங்கம் of India

பதிவு அடையாளம் / Enrollment No 2040/80209/02369

To,
முத்துப்பாண்டி சுரா
Muthupandi S R
S/O: Rajendran
325
melakkal main road
kochadai
Madurai South
Arasaradi Madurai South Madurai
Tamil Nadu 625016
9842133884

28/11/2016

ref: 1856 / 01T / 378394 / 378544 / P



SA334961751FT



உங்கள் ஆதார் எண் / Your Aadhaar No. :

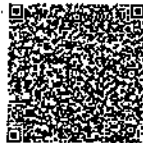
4231 9026 2336

எனது ஆதார், எனது அடையாளம்



இந்திய அரசாங்கம்
Unique Identification Authority of India

முத்துப்பாண்டி சுரா
Muthupandi S R
பிறந்த நாள் / DOB : 07/01/1986
ஆண்பால் / Male

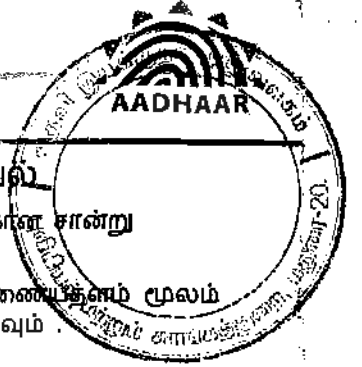


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எனது ஆதார், எனது அடையாளம்



Government of India



தகவல்

- ஆதார் அடையாளத்திற்கான சான்று குடியரிமைக்கு அல்ல .
- அடையாள சான்றை இணையதளம் மூலம் உறுதிப்படுத்திக் கொள்ளவும் .

INFORMATION

- Aadhaar is proof of identity, not of citizenship .
- To establish identity, authenticate online .

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும் .
- வருங்காலத்தில் அரசு மற்றும் அரசு சாரா சேவைகளை பயன்படுத்திக் கொள்ள ஆதார் உதவிகரமாக இருக்கும் .
- Aadhaar is valid throughout the country .
- Aadhaar will be helpful in availing Government and Non-Government services in future .

01T / 378394



ஆதார்

இந்திய அரசாங்கம்
Unique Identification Authority of India

முகவரி: தந்தை / தாய் பெயர்: Address: S/O: Rajendran, 325, ராஜேந்திரன், 325, மேலக்கால் melakkal main road, kochadai, மெயின் ரோடு, கோச்சடை, Madurai South, Madurai, மதுரை தெற்கு, மதுரை, அரசரடி: Arasaradi, Tamil Nadu, 625016 தமிழ் நாடு, 625016

4231 9026 2336



1947



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சுரா

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ANNEXURE-VIII

சென்னை 104

பெயர்: சி.வி.சுப்பிரமணியன்

எண்: 104

பெயர்: சி.வி.சுப்பிரமணியன்

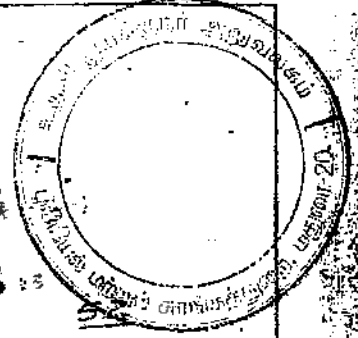
சுமார்: 4

பெயர்: சி.வி.சுப்பிரமணியன்

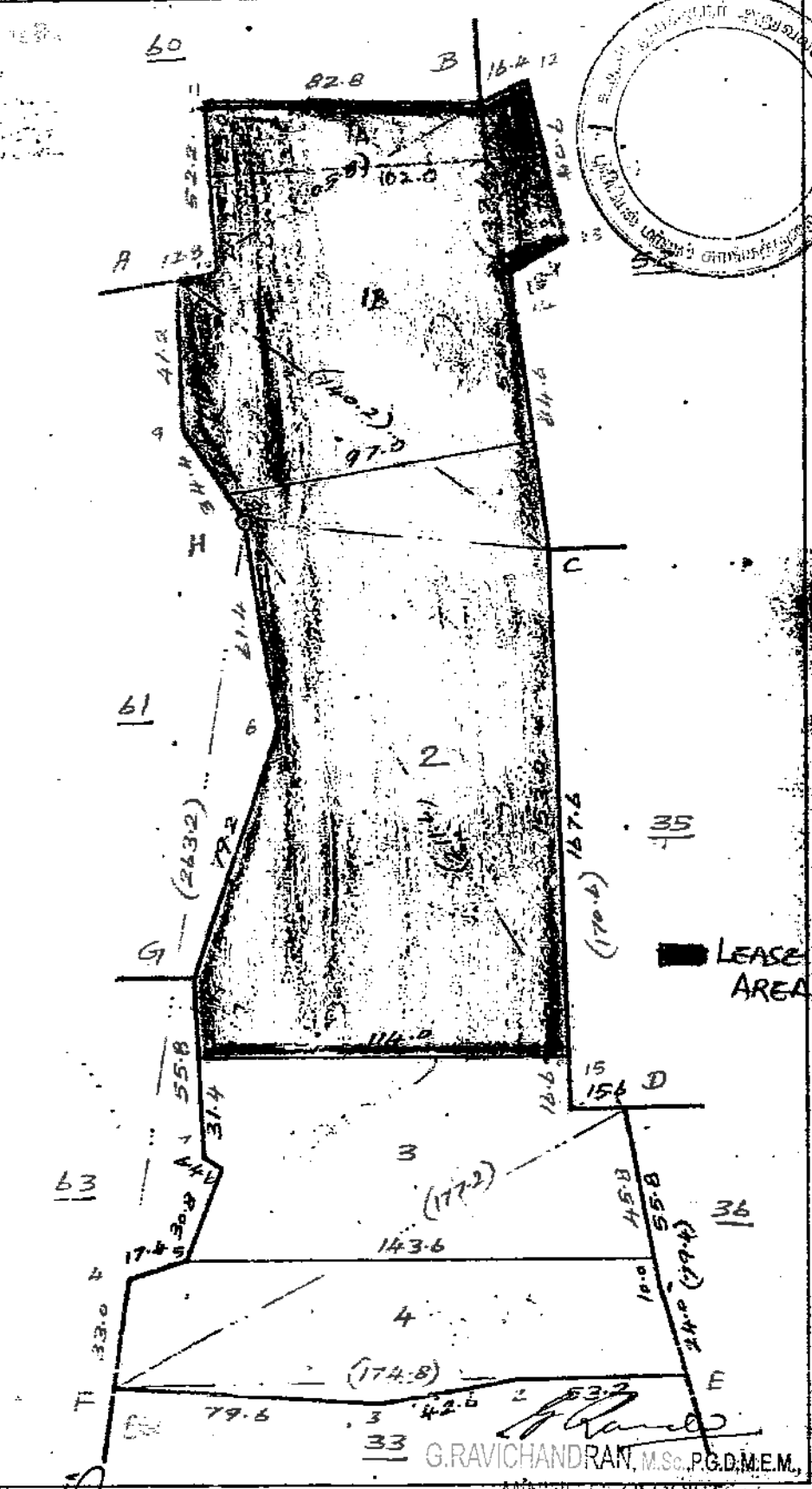
புது எண்: 34

புது எண்: 31-0

சுமார்: 10000 சதுர மீட்டர்
 தரப்பட்டிருக்கிறது: 2000 சதுர மீட்டர்



27.6	A	215.6		
		147.2	3.4	17
		116.4		
		3		
	C	170.6		
15.4		2.0		
	D			
	C	137.4		
2.0		52.8		
17.4		46.6		
	B			
16.0		3.1	BHX	
	B			
		105.8		
22.2		34.6		
		12.0	4.6	10
	A			
		76.6		
1.4		32.8		
	H			
		263.2		
		203.2	20.0	8
		125.6	5.6	6
		72.0	16.0	7
		69.0	22.0	6
		39.2	15.6	5
		33.6		
	F	114.8		
		75.2		
		53.2	LINE 2	
	E	79.4		
		85.8	1.8	
	D			



G. RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
 MINING GEOLOGIST

ROP / MAS / 107 / 2005 / A

VALID UPTO: 12.12.2025

சுமார்: 10000 சதுர மீட்டர்

13

சுவிட்சர்லாந்து
 எல்லா வகைகளிலும்

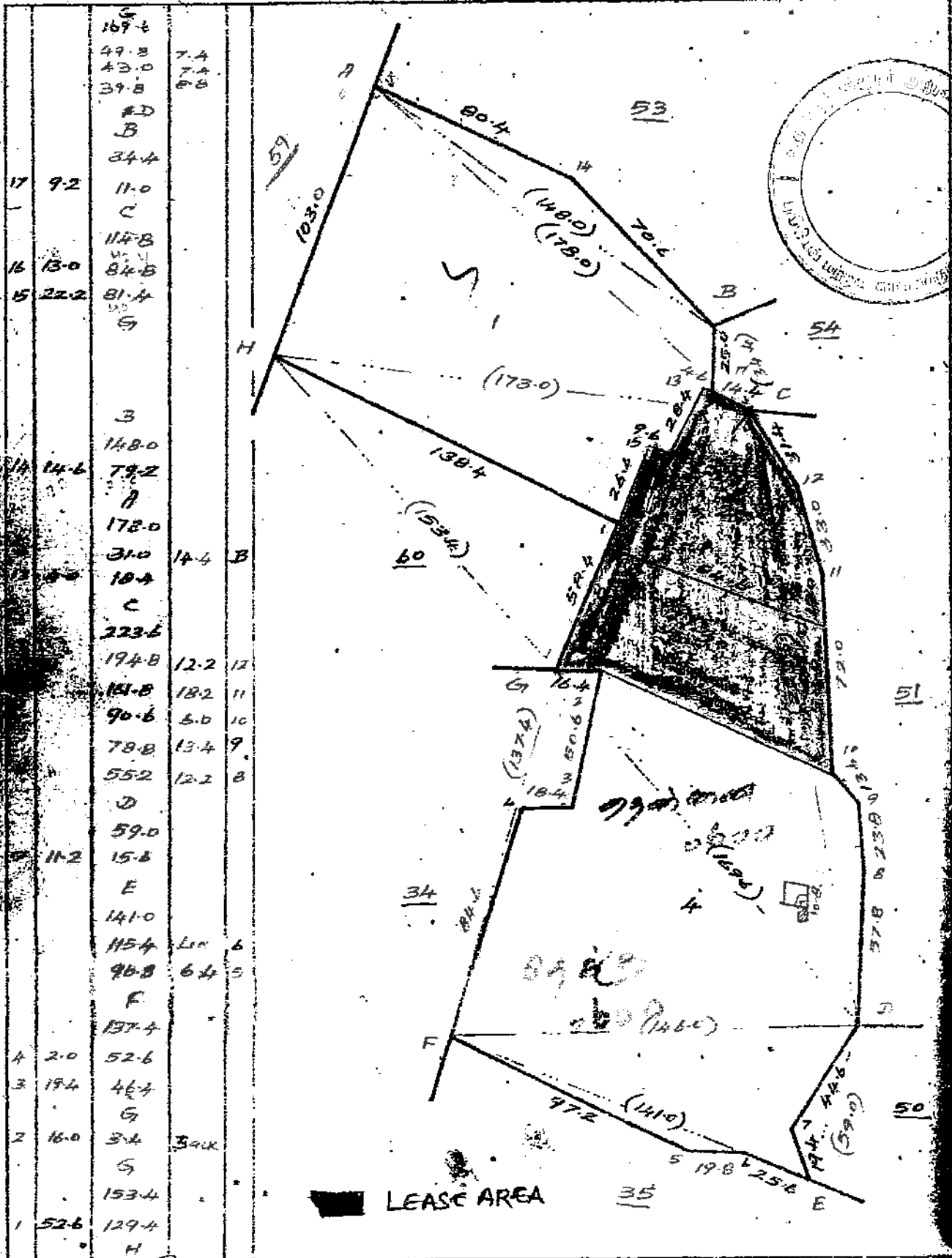
சீரமைப்பு

பெரிய அளவிலும்

புள்ளி 52

பரப்பு: சென்டீமீட்டர்

3 ஏ. 95.0



சுவிட்சர்லாந்து
 எல்லா வகைகளிலும்

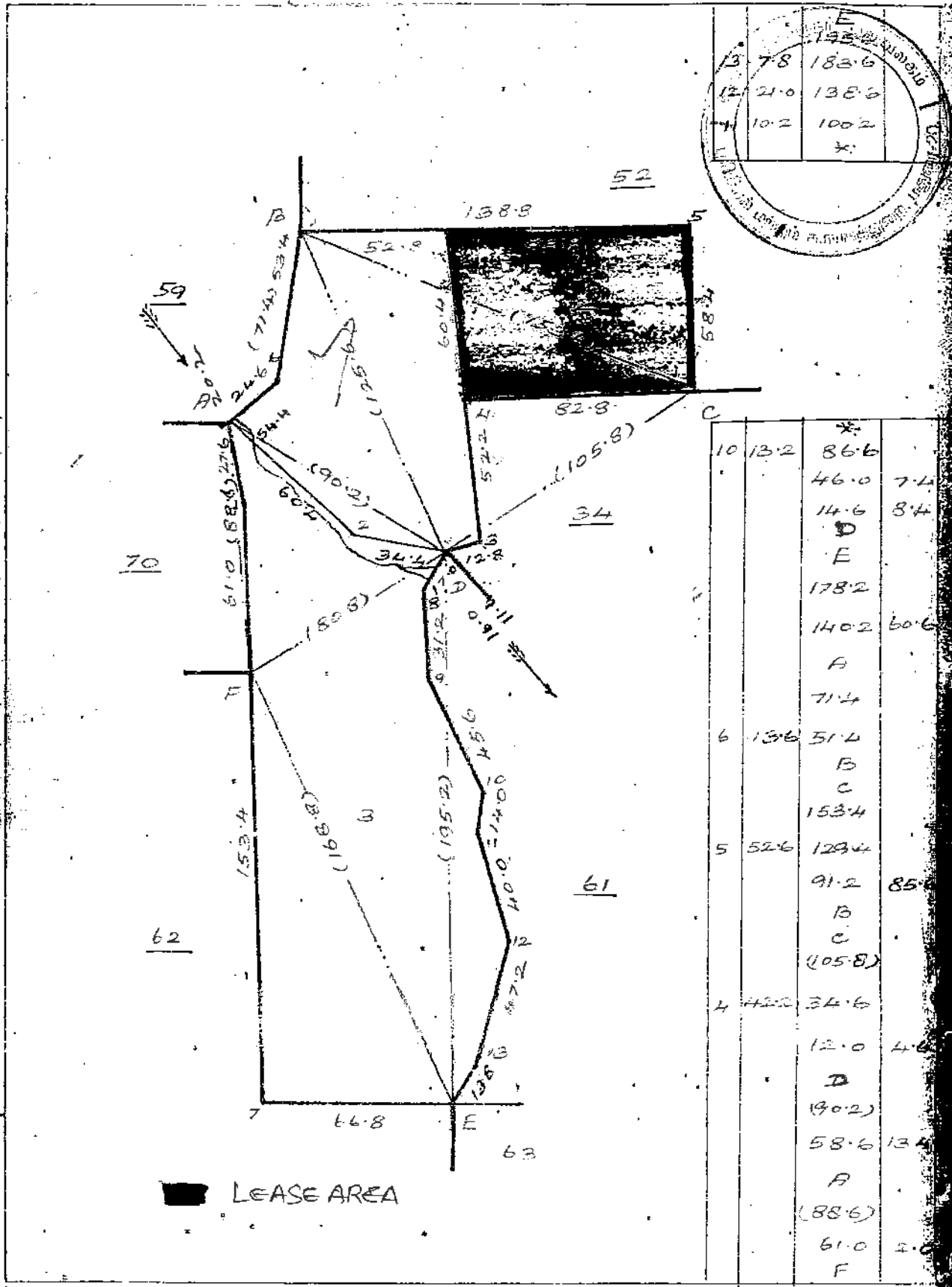
G. RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
 MINING GEOLOGIST
 COP/M/S/197/2005/A

சீரமைப்பு: 11.0.2000/1/52.

பெரிய அளவிலும்
 E. Selvaraj

சுவிட்சர்லாந்து

132



3	78	183.6
12	21.0	138.6
14	10.2	100.2
		*

10	13.2	86.6	
		46.0	7.4
		14.6	8.4
		D	
		E	
		178.2	
		140.2	60.6
		A	
		71.4	
6	13.6	51.4	
		B	
		C	
		153.4	
5	52.6	129.4	
		91.2	85
		B	
		C	
		(105.8)	
4	42.2	34.6	
		12.0	4.6
		D	
		(90.2)	
		58.6	13.4
		A	
		(88.6)	
		61.0	4.6
		F	

LEASE AREA

சென்னை மாநகராட்சி
7.6.84
27.21

செக்டர் 1, 10, 18, 2000 ஏ. ஏ.

மாநகராட்சி
E. சுவாமி

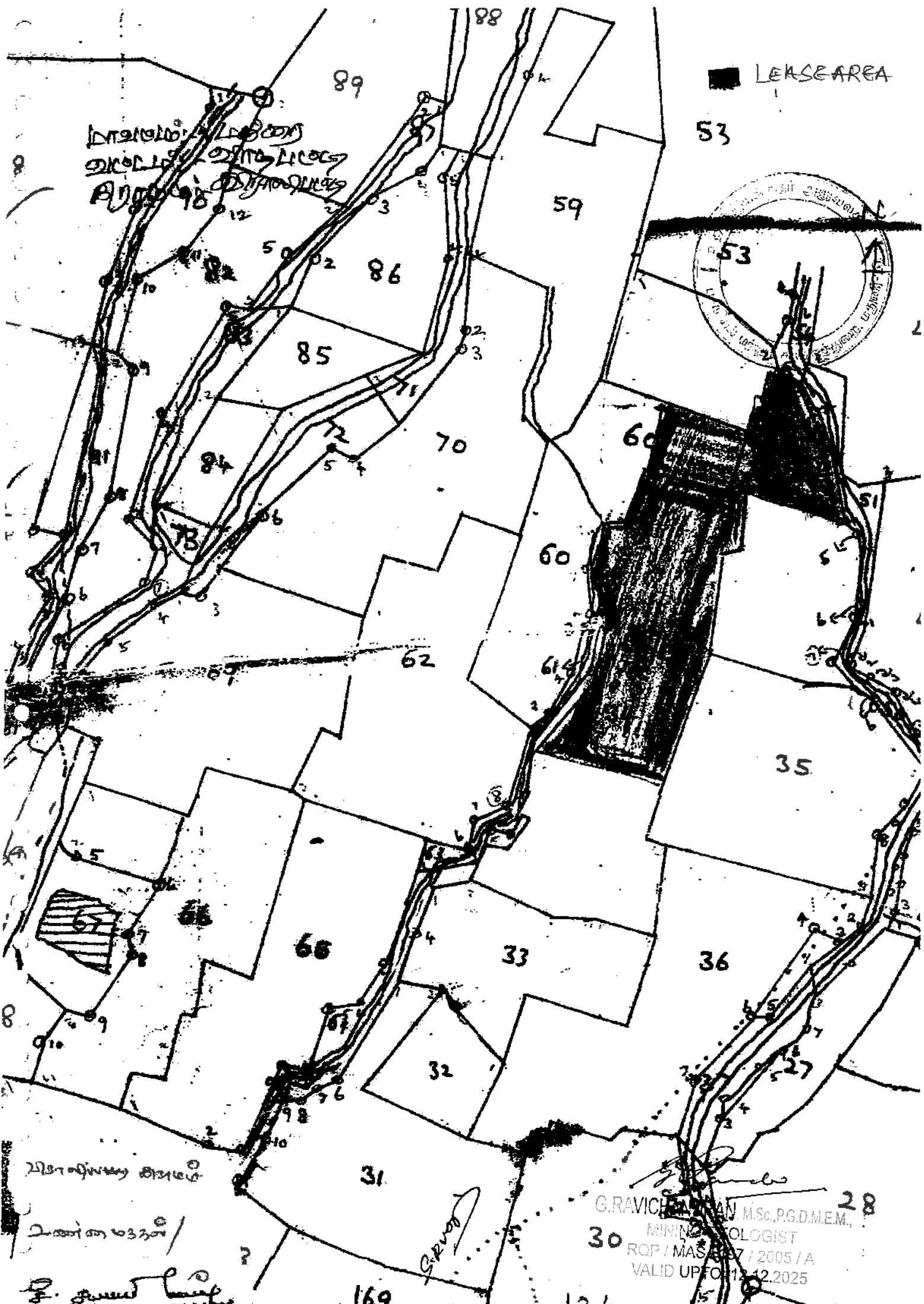
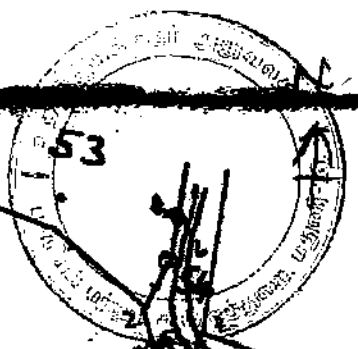
G. Ravichandran
G. RAVICHANDRAN, M.Sc., P.G.D.M.E.M.
MINING GEOLOGIST
FOR MAS/197/2005/A

133

2.12.2023

LEASE AREA

53



Handwritten Malayalam text:
ഇടവക:
മുഖ്യ:
അംഗ:
11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

G. RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
MINING GEOLOGIST
RQP / MAS / 67 / 2005 / A
VALID UP TO 12.12.2025

Handwritten Malayalam text:
മുഖ്യ:
അംഗ:
11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Handwritten Malayalam text:
മുഖ്യ:
അംഗ:
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Handwritten Malayalam text:
മുഖ്യ:
അംഗ:
11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

MINES LAND PHOTO

மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம் பட்டா புலனண்கள். 34/1A,1B,2, 52/2,3 & 60/2 மொத்தம் 4-20.00 ஹெக்டேரில் மட்டும் 10 வருடங்களுக்கு உதவிஇயக்குனர், புவியியல் மற்றும் சுரங்கத்துறை, மதுரை மாவட்ட ஆட்சியர் அலுவலக வளாகம், மதுரை அவர்களின் செயல்முறை ஆணை எண். 1114/கனிமம்/2021 நாள் 04.03.2023ன் படி திரு. S.R.. முத்துப்பாண்டி, த/பெ. S.ராஜேந்திரன் அவர்கள் மனு செய்துள்ளார்கள். மேற்படி இடம் உடைகல், ஜல்லி மற்றும் கிராவல் வெட்டி எடுப்பதற்கு அங்கீகரிக்கப்பட்ட இடம் என்பதை இதன் மூலம் சான்றளிக்கிறேன்.

மேற்படி இடத்திற்கு செல்வதற்கு அணுகுபாதை வசதி உள்ளது என்றும் சான்றளிக்கிறேன்.

இடம்: *செவன்*
 நாள்: 6/3/2023
 மனுதாரர் *S.R. முத்துப்பாண்டி* கையெழுப்பம்

S. R. முத்துப்பாண்டி
 கிராம நிர்வாக அலுவலர்
 கிராம நிர்வாக அலுவலர்
 2, விராலிப்பட்டி கிராம
 வாடிப்பட்டி வட்டம்
 6/3/2023

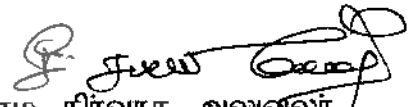
S. R. முத்துப்பாண்டி

கிராம நிர்வாக அலுவலரின் சான்று

மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், விராலிப்பட்டி கிராமம் பட்டா புலன்கள். 34/1A,1B,2, 52/2,3 & 60/2 மொத்தம் 4-20.00 ஹெக்டேரில் மட்டும் 10 வருடங்களுக்கு உதவிஇயக்குனர், புனித்யல மற்றும் சுரங்கத்துறை, மதுரை மாவட்ட ஆட்சியர் அலுவலக வளாகம், மதுரை அவர்களின் செயல்முறை ஆணை எண். 1114/கனிமம்/2021 நாள் 04.03.2023ன் படி திரு. S.R.. முத்துப்பாண்டி, த/பெ. S.ராஜேந்திரன் அவர்கள் மனு செய்துள்ளார்கள். இவர்கள் ஆரம்பிக்க உள்ள உடைகல், ஜல்லி மற்றும் கிராவல் குவாரி இடத்திற்கு செல்ல போதிய அணுகுபாதை வசதி உள்ளது மேலும் நிலத்தை சுற்றி 300மீட்டர் சுற்றளவில் குடியிருப்புகள், கோயில்கள், பள்ளிக்கூடம் ஏதும் இல்லை.

மேற்படி புல எண்கள். மேற்படி கிராம கணக்கு தடை ஆணை புத்தகத்தில் இடம் பெறவில்லை. மேலும் 10கி.மீ. சுற்றளவில் பிற மாவட்ட எல்லையோ, மாநில எல்லையோ இடம்பெறவில்லை. மேற்படி சான்று கனிமவளத்துறைக்கு அளிக்கும் வகைக்காக வழங்கப்படுகிறது.

S.R.


கிராம நிர்வாக அலுவலர்.
கிராம நிர்வாக அலுவலர்
2, கிராம நிர்வாக அலுவலர்
வாடிப்பட்டி

ANNEXURE - X



தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : மதுரை

வட்டம் : வாடிப்பட்டி

வருவாய் கிராமம் : ஜாரி விராலிப்பட்டி

பட்டா எண் : 810

உரிமையாளர்கள் பெயர்

- | | | | |
|-----------------------|------|--------------|--|
| 1. பழனியாண்டி அம்பலம் | மகன் | பழனிச்சாமி | |
| 2. ராஜேந்திரன் | மகன் | முத்துபாண்டி | |
| 3. பிரேம்சந்தர் | மகன் | ஸ்ரீராம் | |

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	
33	3	0 - 54.00	1.49	--	--	--	--	2020/0103/24/142010- -- -- 12-11-2020
33	4	0 - 4.00	0.11	--	--	--	--	2020/0103/24/142010- -- -- 12-11-2020
34	1A	0 - 23.00	0.64	--	--	--	--	2020/0103/24/142010- -117/1408 -- 12-11- 2020
34	3	0 - 78.50	2.17	--	--	--	--	2020/0103/24/142010- -- -- 12-11-2020
60	3	1 - 56.00	4.32	--	--	--	--	2020/0103/24/142010- -- -- 12-11-2020
62	2	0 - 46.50	1.29	--	--	--	--	2020/0103/24/142010- -- -- 12-11-2020
		3 - 62.00	10.02					

குறிப்பு 2 :



- மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 24/14/002/00810/180249 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
- இத் தகவல்கள் 16-07-2021 அன்று 01:48:34 PM நேரத்தில் அச்சடிக்கப்பட்டது.
- கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

(Handwritten signature)

137



தமிழக அரசு
வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : மதுரை

வட்டம் : வாடிப்பட்டி

வருவாய் கிராமம் : ஜாரி விராலிப்பட்டி

பட்டினி எண் : 852

உரிமையாளர்கள் பெயர்

- | | | |
|-----------------------|------|-----------------|
| 1. பழனியாண்டி அம்பலம் | மகன் | பழனிச்சாமி |
| 2. பழனிச்சாமி | மகன் | விஜய கார்த்திக் |
| 3. ராஜேந்திரன் | மகன் | முத்துப்பாண்டி |
| 4. பிரேம் சந்தர் | மகன் | ஸ்ரீராம் |

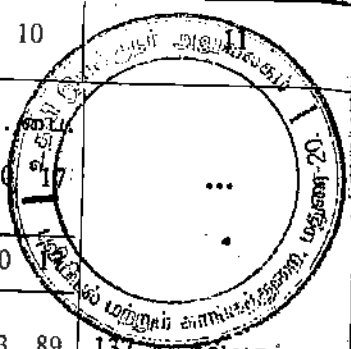
புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ ² பை	ஹெக் - ஏர்	ரூ - பை	
35	1	0 - 24.50	0.68	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
34	1B	0 - 91.00	2.52	--	--	--	--	2021/0103/24/159848- -117/1408 -- 11-05- 2021
35	3	0 - 45.50	1.27	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
34	2	1 - 78.00	4.92	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
34	4	0 - 60.50	1.68	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
35	2	0 - 62.50	1.74	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
52	2	0 - 37.00	1.03	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
52	3	0 - 41.00	1.13	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
60	2	0 - 50.00	1.38	--	--	--	--	2021/0103/24/159848- -- -- 11-05-2021
		5 - 90.00	16.35					

குறிப்பு 2 :



- மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 24/14/002/00852/180265 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
- இத் தகவல்கள் 16-07-2021 அன்று 01:49:30 PM நேரத்தில் அச்சடிக்கப்பட்டது.
- கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

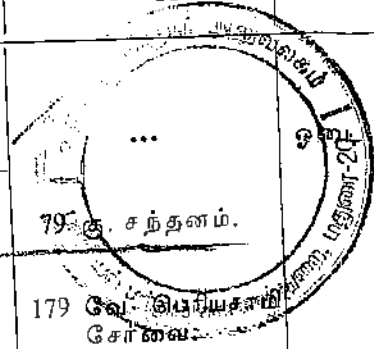
1	2	3	4	5	6	7	8	9	10		
51	2 ✓	51-2	ச	4	...	7-2	4	2 77	0 06-0	0 17	...
									0 53-0	0	...
52	1	52-1	ர	4	...	7-2	4	2 77	1 40-5	3 89	137 ச. நல்லாக் குடும்பன்.
	2	-2	ர	4	...	7-2	4	2 77	0 37-0	1 03	131 ரா. துரைசாமி பிள்ளை.
	3	-3	ர	4	...	7-2	4	2 77	0 41-0	1 13	86 சி. சின்னசாமி பிள்ளை.
	4	-4	ர	4	...	7-2	4	2 77	1 76-5	4 88	315 ச. சுந்தர ராசன் (1), ச. ராமசாமி நாயுடு (2).
									3 95-0	10 93	
53	...	53	ர	4	...	7-3	5	2 15	3 60-0	7 74	92 நா. சீனிவாசன் செட்டியார்.
54	...	54	ச	4	...	...	...	...	0 58-0	...	...
55	...	-55	ர	4	...	7-3	5	2 15	3 74-5	8 06	129 அ. திருமலை சாமிஅய்யர்.
56	...	56	ச	4	...	...	...	...	0 81-0	...	...
57	...	57	ர	4	...	7-3	5	2 15	0 71-0	1 53	92 நா. சீனிவாசன் செட்டியார்.
58	...	58	ர	4	...	7-3	5	2 15	2 18-0	4 69	92 நா. சீனிவாசன் செட்டியார்.
59	1	59-1	ர	4	...	7-3	5	2 15	2 29-0	4 92	92 நா. சீனிவாசன் செட்டியார்.
	2	-2	ர	4	...	7-2	4	2 77	0 84-0	2 33	137 ச. நல்லாக் குடும்பன்.
									3 13-0	7 25	
									0 71-0	1 56	227 ச. முருகன்.
	2	-2	ர	4	...	7-2	4	2 77	0 50-0	1 38	394 ரா. பொன்னையா பிள்ளை மற்றும் ஐந்து பேர்களும்.*
	3	-3	ர	4	...	7-2	4	2 77	1 56-0	4 32	179 வே. பெரியசாமி சேர்வை.
									2 77-0	7 66	



2 விவரம் 358
 ராமசாமி (முய)
 ராமசாமி (முய)
 2 விவரம் 358
 60 வாரியப் பட்டி
 60-1

சுமார்

2	3	4	5	6	7	8	9	10	11	12
61	சு	புற	...	...	...	...	கு. பை. ஹெ. ஏர்ஸ்	கு. பை.	...	...
62-1	ர	பு	...	7-2	4	2 77	0 22.5	1 34	79	கு. சந்தனம்.
-2	ர	பு	...	7-2	4	2 77	0 46.5	1 29	179	வே. பெருமாள் கோவை.
-3	ர	பு	...	7-2	4	2 77	0 42.5	1 18	252	ந. ரெ. ராமசாமி ரெட்டியார்.
-4	ர	பு	...	7-2	4	2 77	0 91.5	2 53	140	சி. நாகுப்பிள்ளை.
-5	ர	பு	...	7-2	4	2 77	0 79.0	2 18	107	ரா. சுப்புலட்சுமி அம்மாள்.
-6	ர	பு	...	7-2	4	2 77	0 59.5	1 65	140	சி. நாகுப்பிள்ளை.
							3 67.5	10 17		
...	63	சு	புற	...	...	...	0 26.0	...	...	ஓடை.
...	64	சு	புற	...	...	...	0 51.5	...	...	ஓடை.
1\	65-1	ர	பு	...	7-2	4 2 77	0 19.5	0 54	181	பொ. பெருமாள் தாயுடு.
2A	-2A	ர	பு	...	7-2	4 2 77	0 60.5	1 68	33	க. ஆறுமுகத்தம்மாள்.
2B	-2B	ர	பு	...	7-2	4 2 77	0 60.5	1 68	123	சி. தனிக் கோடி ரெட்டியார்.
3	-3	ர	பு	...	7-2	4 2 77	0 43.5	1 20	58	பெ. கிருஷ்ண சர்மி நாயக்கர்.
4	-4	ர	பு	...	7-2	4 2 77	0 41.0	1 16	32	மு. தவமணி (1), மு. விருமாண்டி (2).
5	-5	ர	பு	...	7-2	4 2 77	0 42.0	1 16	321	மு. தவமணி(1), மு. விருமாண்டி (2).
6	-6	ர	பு	...	7-2	4 2 77	0 31.0	0 85	81	வெ. சிங்கம் ரெட்டியார்.
7	-7	ர	பு	...	7-2	4 2 77	0 50.0	1 39	320	மா. முத்து (1), மா. கழுவத் தேவர் (2).
							3 49.0	9 66		



செ. 26
2
2-ண்
103-ண்

சு. சந்தனம்
விராவிப்பட்டி கிராமம்

சு. சந்தனம்

1430 ஆம் பசலியில்

மார்ச் மாதம்

வட்டம் 2 கிராம விலையில்

கிராமக் கணக்கு

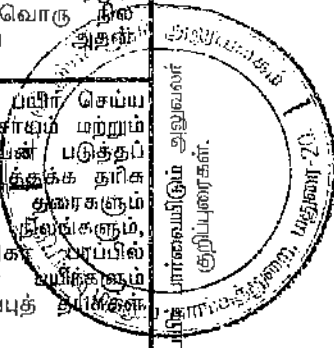
நில வரித் திட்டத்தின்படி புலங்களின் விபரம்.					சாகுபடி யாளரின் பெயர்.	முதல் போகம்.						
(1) நில அளவை எண்.	(2) உட்பிரிவு எண்.	(3) பரப்பு.	(4) தீர்வை.	(5) ஒரு போகம் அல்லது இரு போகம்.		(6) கைப்பற்று தாரகடைய பெயரும் என்னும் அல்லது அனுபோக தாரகடைய பெயர்.	(7) நிலத்தின் எந்த பகுதி யாவது சாகுபடியாளரால் பயிரிடப்பட்டுள்ளதா.	(8) எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	(9) பயிரின் பெயர்.	(10) பயிரான / அறுவடையான பரப்பு.	(11) உண்மையான பாய்ச்சல் ஆதாரம்.	(12) விளைச்சல் அளவு விழுக்காடு.
34	1A	0230064	810									
34	1B	0910252	852									
34	2	1380492	852									

10 கிராம விலை அலுவலர், கிராம விலை அலுவலர், கிராம விலை அலுவலர், கிராம விலை அலுவலர்.

எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

இரண்டாம் போகம்.										கீழ்க்கண்டவகையில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பரப்பின் விவரங்கள் ஒவ்வொரு நில அளவை எண் அல்லது பகுதியில்.	(18அ)	(19) பார்வையிடும் அலுவலர் குறிப்புகள்.
(13) எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	(14) பயிரின் பெயர்.	(15) பயிரான / அறுவடையான பரப்பு.	(16) உண்மையான பாய்ச்சல் ஆதாரம்.	(17) விளைச்சல் அளவு விழுக்காடு.	(18) கிராம அலுவலரின் குறிப்புரை :- (1) புலங்களின் பகுதிகளில் மட்டும் பயிரிடப்பட்ட இனங்களில் விங்குகள் அளவில். (2) கைப்பற்றில் இல்லாத நிலங்களின் சாகுபடியின் பரப்பு தன்மையும் (3) முந்தைய மாதத்தில் பாய்ச்சல் உதவியின்றி பச்சுட்டப்பட்டவை என்று பதிவாகியுள்ள நிலங்களுக்கு பிந்தைய மாதங்களில் நீர் பாய்ச்சப்பட்ட விவரங்கள்.							
						5.1.1.23.0						
						5.1.1.23.0						
						5.1.1.23.0						



142

1430
ஆம் பசலியில்

சென்னை மாவட்டம்

கிராமக் கணக்கு
வட்டம் 2 கிராம வட்டம்

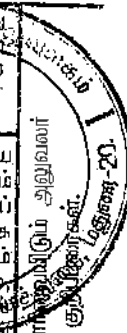
எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

நில வரித் திட்டத்தின்படி புலவாரி விபரம்.					கைப்பற்று தாரகடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரகடைய பெயர்.	சாகுபடி பாளாசின் பெயர்.						
(1)	(2)	(3)	(4)	(5)		(7)	(8)	(9)	(10)	(11)	(12)	
52	2	0370	1.93	852	புலவாரி கைப்பற்று							
52	3	1410	1.13	852	புலவாரி கைப்பற்று							

சென்னை மாவட்டம்
கிராமத் தாரகடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரகடைய பெயர்.

இரண்டாம் போகம்.																
(13)	(14)	(15)	(16)	(17)	(18)			(19)								
எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விழுக்காடு.	கிராம அலுவலரின் குறிப்புரை:- (1) புலவாரி பகுதிகளில் மட்டும் பயிரிடப்பட்ட இனங்களில் விஞ்சுகள் அளவில். (2) கைப்பற்றில் இல்லாத நிலங்களின் சாகுபடி பரப்பு தன்மையும். (3) முந்தைய பாய்ச்சல் பாய்ச்சல் உதவியின்றி பயிரிடப்பட்டவை எனறு பதிவெழுத்து நிலங்களுக்கு பிந்தைய மாதங்களில் நிர் பாய்ச்சப்பட்ட விவரங்கள்.			கீழ்க்கண்டவகையில் பயிரிடப்பட்டது உள்ள நிலத்தின் தன்மை மற்றும் பரப்பின் விவரங்கள் துல்லியமாக நில அளவை எண் அல்லது அதன் பகுதியில். (அ) வனம், (ஆ) பயிற்ற பயிர் செய்ய இயலாத நிலம், (இ) விவசாயம் மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படுகிற நிலம், (ஈ) பயிர் தக்க தரிக நிலையான பகுதிகள் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும் (ஊ) விதைக்கப்பட்ட நெய்யும் தானியமும் சேர்க்கப்பட்ட பரவகைப் பண்டங்கள் தோப்புகளும், (எ) நடப்புத் தரிகள் (9) இதர தரிக நிலங்கள்.								
					5100 0.37.0											
					5100 0.41.0											



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1430 - ஆம் பசலியில்

10 சூன் மாவட்டம்

வட்டம்

கிராமக் கணக்கு

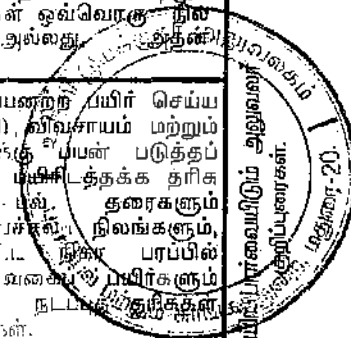
எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி ஆடங்கல் கணக்கு

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாரகடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரகடைய பெயர்.	சாகுபடி யாளரின் பெயர்.	முதல் போகம்.					
(1) நில அளவை எண்.	(2) உட்பிரிவு எண்.	(3) பரப்பு.	(4) தீர்வை.	(5) ஒரு போகம் அல்லது இரு போகம்.			(7) நிலத்தின் எந்த பகுதி யாவது சாகுபடியாளரால் பயிரிடப்பட்டுள்ளது.	(8) எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	(9) பயிரின் பெயர்.	(10) பயிரான / அறுவடையான பரப்பு.	(11) உண்மையான பாப்ச்சல் ஆதாரம்.	(12) விளைச்சல் அளவு விழுக்காடு.
60	3	156.0432	910	1440	4440							

2 கைப்பற்று
 P. Suresh Kumar
 கிராம தாரகடைய அலுவலர்,
 2 கைப்பற்று வட்டம்,
 மாவட்டம்.

இரண்டாம் போகம்.							கிராம அலுவலரின் குறிப்புரை :- (1) புலன்களின் பகுதிகளில் மட்டும் பயிரிடப்பட்ட இனங்களில் விங்குகள் அளவில் (2) கைப்பற்றில் இல்லாத நிலங்கள் சாகுபடியின் பரப்பு தன்மையும் மாதத்தில் பாப்ச்சல் உதவியின்றி பயிரிடப்பட்டவை என்று பதிவுகிட்டுள்ள நிலங்களுக்கு பிந்தைய மாதங்களில் நிர் பாப்ச்சப்பட்ட விவரங்கள்.	கீழ்க்கண்டவகையில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பரப்பின் விவரங்கள் ஒவ்வொரு நில அளவை எண் அல்லது பகுதியில். (அ) வனம், (ஆ) பயணற்ற பயிர் செய்ய இயலாத நிலம், (இ) விவசாயம் மற்றும் இதர காரியங்களுக்கு பயன்படுத்தப்படும் நிலம், (ஈ) பயிரிடத்தக்க தரிக (உ) நிலையான நிலம், (ஊ) குறைகனம் மற்றும் இதர வேளாண் நிலங்களும், (஋) கிடைக்கப்பட்ட நிலம், பரப்பில் கொடுக்கப்படாத மரவகை பயிர்களும் கொடுக்கப்படாத நிலங்களும், (ஏ) நடமாட்டம் இல்லாத நிலங்கள், (ஐ) இதர தரிக நிலங்கள்.	பயிர் பரப்பின் அளவு மற்றும் இரண்டாம் போகம்.		
(13) எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	(14) பயிரின் பெயர்.	(15) பயிரான / அறுவடைபான பரப்பு.	(16) உண்மையான பாப்ச்சல் ஆதாரம்.	(17) விளைச்சல் அளவு விழுக்காடு.	(18) கிராம அலுவலரின் குறிப்புரை :- (1) புலன்களின் பகுதிகளில் மட்டும் பயிரிடப்பட்ட இனங்களில் விங்குகள் அளவில் (2) கைப்பற்றில் இல்லாத நிலங்கள் சாகுபடியின் பரப்பு தன்மையும் மாதத்தில் பாப்ச்சல் உதவியின்றி பயிரிடப்பட்டவை என்று பதிவுகிட்டுள்ள நிலங்களுக்கு பிந்தைய மாதங்களில் நிர் பாப்ச்சப்பட்ட விவரங்கள்.						



S. Suresh

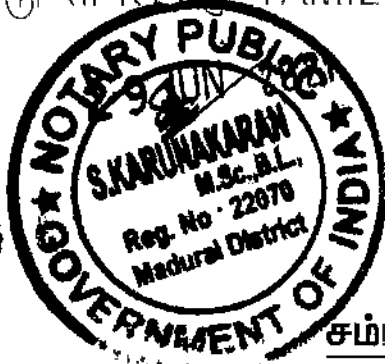


தமிழ்நாடு தமில்நாடு TAMIL NADU

87AB 407855

இதழ் பார்த்து,
Loசார.

S. நாக்குமார்
மு.தா. வி
LNo: 6/2000
முசிரி, தமிழ்நாடு



சம்மதப் பத்திரம்

2021-ம் வருடம் ஜூலை மாதம் 23-ம் தேதிக்கு,
தமிழ் ஸ்ரீ பிலவ வருடம் ஆடி மாதம் 7-ம் தேதி,

மதுரை-625016, கோச்சடை, மேலக்கால் மெயின் ரோடு, கதவு எண்.325
என்ற முகவரியில் வசிக்கும் திரு.S.ராஜேந்திரன் அவர்களின் மகன்
திரு.S.R.முத்துப்பாண்டி - 1வது பார்ட்டியாகவும்,

மதுரை மாவட்டம், மதுரை மேற்கு வட்டம், கொடிமங்கலம் கிராமத்தைச்
சேர்ந்த திரு.பழனியாண்டி அம்பலம் மகன் திரு.P.பழனிச்சாமி-1/ மேற்படி
கிராமத்தைச் சேர்ந்த திரு.பழனிச்சாமி மகன் திரு.P.விஜயகார்த்திக்-2, சிவகங்கை
மாவட்டம், தேவகோட்டை, திருப்பத்தூர் ரோடு, கதவு எண்.484ல் வசிக்கும்
திரு.பிரேம்சந்தர் மகன் திரு.P.ஸ்ரீராம்-3 ஆகிய 3 நபர்களும் சேர்ந்து 2வது
பார்ட்டியாகவும், ஆக நாம் இரு பார்ட்டிகளும் சம்மதித்து எழுதிக்கொண்ட சம்மத
ஒப்பந்தப் பத்திரம் என்னவென்றால்,

1வது பார்ட்டி

2வது பார்ட்டிகள்

S. Karunakaran 23/7/21
S.KARUNAKARAN, M.Sc., B.L.,
ADVOCATE / NOTARY PUBLIC
Govt. of India Reg. No: 22070
Meenakshi Avenue, K.Pudur, Madurai-7.
Cell : 98592 93411

S. Karunakaran
S. Karunakaran

மேற்படி மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், ஜாரி விராலிபட்டி கிராமம், கூட்டுப்பட்டா எண்.852 & 810-ல் சர்வே எண்.52/2, 52/3, 34/1A, 34/1B, 34/2, 60/2-ல் கட்டுப்பட்ட மொத்தம் 4.20.00 ஹெக்டேர் விஸ்தீரணம் உள்ள நிலமானது நாம் இரு பார்ட்டிகளுக்கும் சொந்தமானதாகும். மேற்படி நிலத்தில் நம்மில் 1வது பார்ட்டி, உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, மதுரை அவர்களிடம் அனுமதி பெற்ற நாள் முதல் பதினைந்து (15) வருட காலத்திற்கு உடைகல் குவாரி அமைத்துக்கொள்ள 2வது பார்ட்டிகள் இதன்மூலம் முழுமனதுடன் சம்மதம் தெரிவித்துக் கொள்கின்றனர்.

இதில் ஏதேனும் வில்லங்கம் விவகாரம் ஏற்பட்டால், அதனை 2வது பார்ட்டியே தீர்த்துக்கொடுக்க வேண்டியது என்றும் முழுமனதுடன் உறுதிகூறி, மதுரை நோட்டரி பப்ளிக் முன்னிலையில் இதில் கையொப்பம் செய்துள்ளோம்.

1வது பார்ட்டி
[Signature]

2வது பார்ட்டிகள்

[Signature]
[Signature]

சாட்சிகள் :

1) *[Signature]*
[Signature]
69/11-16

[Signature]
[Signature]
23/7/21
S.KARUNAKARAN, M.Sc., B.L.
ADVOCATE / NOTARY PUBLIC
Govt. of India Reg. No: 22070
Meenakshi Avenue, K.Pudur, Madurai-7.
Cell : 96592 93411



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15 APR 2021

A சுகானந்தம், M.A., T.T.C.,
R.O.C. No: 5800/81/2008-1
16, குறிஞ்சி தெரு, அண்பதி நகர்
புது விளாங்குடி, மதுரை

பிடிபித்தாமி
செய்யு.



உபாயம் 8,27,835/-க்கு பஞ்சை நிலங்கள்

சுத்தக்கிரைய சாசனம்

2021ம் வருடம் ஏப்ரல் மாதம் 16ம் தேதி

மதுரை-625 234, கொடிமங்கலம், நடுத்தெரு, டோர் எண்.2/3 வீட்டில்
வசிக்கும் திரு.P.முனியாண்டி அம்பலம் அவர்கள் குமாரர்
திரு.P.முனிச்சாமி (Aadhaar No.8397 4686 8678, Cell No.99652 87759)
அவர்கள் -1, மேற்படியார் குமாரர் திரு.P.விஜயகார்த்திக் (Aadhaar No.2679
7784 8621) அவர்கள் -2 மதுரை-625 016, கோச்சடை, மேலக்கால் மெயின்
ரோடு, டோர் நர் 325 வீட்டில் வசிக்கும் திரு.ராஜேந்திரன் அவர்கள் குமாரர்
திரு.R.முத்துப்பாண்டி (Aadhaar No.4231 9026 2336) அவர்கள் -3, சிவகங்கை-
630 302, தேவக்கோட்டை, திருப்பத்தூர் ரோடு, டோர் நர் 484 வீட்டில்
வசிக்கும் திரு.மிஸ்சந்தர் அவர்கள் குமாரர் திரு.ஸ்ரீராம் (Aadhaar No.8843
5040 0164) அவர்கள் -4 இந்த நான்கு பேர்களுக்கும்

எழுதிக் கொடுப்பவர்

எழுதி வாங்குபவர்

"For Register & உபயோகி இரண்டு பக்கம் கண்ட."

PHASAD & COMPANY (PROJECT WORKS) LTD

P. H. [Signature]
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9093 நர் ஆவணம் 98
தாளகளைக் கொண்டது
...ம் தாள

1. [Signature]

2. [Signature]

[Signature]



[Signature]

147

ஆந்திர மாநிலம், ஐதராபாத்தில் பதிவு அலுவலகமாக இயங்கிவரும் பிரசாத் & கம்பெனி புராஜக்ட் ஒர்க்ஸ் லிமிட்-க்காக(Pan No.AABCP2299L) தற்போது திண்டுக்கல் மாவட்டம், நிலக்கோட்டை வட்டம், கொடை ரோடு, அம்மையநாயக்கனூரில் இயங்கிவரும் பணி அலுவலகத்தின் தற்போதைய Manager-ம் திரு.P.கோவிந்தராஜு அவர்கள் குமாருமான திரு.P.ஜெயராம் (Aadhaar No.2222 8111 0045) அவர்கள் மேற்படி பிரசாத் & கம்பெனி (புராஜக்ட் ஒர்க்ஸ்) லிமிட் க்காக மேற்படி நிறுவனத்தால் கடந்த 15.02.2021ம் தேதி நிறைவேற்றப்பட்ட தீர்மானத்தின்படி நியமிக்கப்பட்டவருமாக இருந்து எழுதிக்கொடுத்த புஞ்சை நிலங்கள் சுத்தக்கிரைய சாசனம் என்னவென்றால்.

அடியிற்கண்ட சொத்துவிபரத்தில் கட்டுப்பட்ட சொத்துக்களைப் பொறுத்து பிரசாத் & கம்பெனி (புராஜக்ட் ஒர்க்ஸ்) லிமிட் நிறுவனத்தின் வருவாய் இருந்து மேற்படி நிறுவனத்தின் பெயரில் கடந்த 17.04.2007ம் தேதியில் வாடிப்பட்ட சார் பதிவகம் 1புக் 498/2007நிர் கிரைய தஸ்தாவேசு மூலம் கிரையம் பெற்று மேற்படி நிறுவனத்தின் கைவசம் இருந்து அதுமுதல் மேற்படி நிறுவனத்தின் கைவசம் வைத்து யாதொரு ஆட்சேபனையின்றி மேற்படி நிறுவனத்தால் அனுபவித்து வருகிற கீழ்க்கண்ட சொத்து விபரத்தில் கட்டுப்பட்ட புஞ்சை நிலங்களையும் அதில் மேற்படி நிறுவனத்திற்குரிய யாவற்று சர்வசுதந்திர சகல பாத்தியங்களையும் உரிமைகளையும் சேர்த்து நான் மேற்படி நிறுவனத்தால் கடந்த 15.02.2021ம் தேதியில் நடத்தப்பட்ட கூட்டத்தில் எடுக்கப்பட்ட தீர்மானத்தின் படி இதன் அடியில்கண்ட சொத்து விபரத்தில் கட்டுப்பட்ட சொத்தை மேற்படி நிறுவனத்திற்காக தங்களுக்கு சுத்தக்கிரையம் ரூபாய்.8,27,835/- (ரூபாய் எட்டு லட்சத்தி இருபத்தி ஏழாயிரத்தி எண்ணூற்று முப்பத்தி ஐந்து)க்கு பேசி முடிவு செய்து மேல்கண்ட கிரையத்தொகை ரூபாய்.8,27,835/- (ரூபாய் எட்டு லட்சத்தி இருபத்தி ஏழாயிரத்தி எண்ணூற்று முப்பத்தி ஐந்து)ம் நான் மேற்படி நிறுவனத்திற்காக தங்களிடம் இருந்து மேற்படி நிறுவனத்தின் வளர்ச்சி மற்றும் இதர மேன்மை செலவினங்களுக்காக வேண்டி தங்களுடைய Indian Overseas Bank கொடிமங்கலம் கிளை வரைவோலை எண்.903534 வாயிலாக ரூபாய்.5,60,000/- (ரூபாய் ஐந்து லட்சத்தி அறுபதாயிரம்)மும் மீதமுள்ள ரூபாய்.2,67,835/- (ரூபாய் இரண்டு லட்சத்தி அறுபத்தி ஏழாயிரத்தி எண்ணூற்று முப்பத்தி ஐந்து)ம் ரொக்கமாகவும் பெற்றுக்கொண்டு மேற்படி நிறுவனத்தின் கணக்கில் பற்றாகி விட்டபடியால் மேற்படி தொகைக்கு அறுதிக்கிரையமாக கீழ்க்கண்டசொத்து விபரத்தில் கட்டுப்பட்ட புஞ்சை நிலங்களை இன்று முதல் தாங்கள் என்றென்றைக்கும் சர்வசுதந்திர கிரையபாத்தியமாய், புத்திர பெளத்திர பரம்பரையாய் தானாதி வினியோக விற்கிரையங்களுக்கு யோக்கியமாய் ஆண்டு அனுபவித்து சுகத்தில் இருந்து வருவீராகவும்.

எழுதிக் கொடுப்பவர்

எழுதி வாங்குபவர்

"For பிரசாத் & கம்பெனி புராஜக்ட் ஒர்க்ஸ் லிமிட்"

PRASAD & COMPANY (PROJECT WORKS) LTD

Prasad

[Signature]

ஆண்டிஸ்

இத்துடன் தங்கள் பெயருக்கு பட்டா மற்றும் வரிவகையறாக்களை மாற்றக்கோரி மனுக்களும் கொடுத்துள்ளேன்.

அடியில்கண்ட சொத்துக்களைப் பொறுத்து வேறு முன் வில்லங்கமோ பாத்தியக் குறைவுகளோ ஏதும் இல்லை மீறி ஏதேனும் வில்லங்கமோ, பாத்தியக்குறைவோ இருந்து வெளிப்படின மேற்படி வில்லங்கத்தை மேற்படி நிறுவனமே முன்னின்று மேற்படி நிறுவனத்தின் சொந்தச் செலவிலும், சொந்தப் பொறுப்பிலும் மேற்படி வில்லங்கத்தை நான் மேற்படி நிறுவனத்திற்காக இருந்து தங்களுக்கு நிவர்த்தி செய்து கொடுப்பேனாகவும்.

அடியில்கண்ட சொத்தின் பொதுச்செலையும் நான் மேற்படி நிறுவனத்திற்காக இருந்து இன்று தங்கள் வசம் ஒப்படைத்து விட்டேன். இனி இன்று முதல் அடியில்கண்ட சொத்தில் மேற்படி நிறுவனத்திற்கோ அல்லது அதன் வழிமுறையில் வருபவர்களுக்கோ யாதொரு பாத்தியமும், பின் தொடர்ச்சியும், உரிமையும், சம்பந்தமும் கிடையாது.

இதற்கு ஆதரவாக மேற்படி 17.04.2007ம் தேதி 498/2007நிர் அசல் கிரைய பத்திரம் தவற விட்ட காரணத்தினால் மேற்படி ஆவணத்தின் Certified Copyயும் Missing Certificate & Paper Advertisementமும் மேற்படி நிறுவனத்தால் நிறைவேற்றப்பட்ட தீர்மானத்தின் அசலையும் ஏனைய ஆதரவு தஸ்தாவேசுக்களையும் நான் மேற்படி நிறுவனத்திற்காக இருந்து இன்று தங்கள் வசம் கொடுத்துள்ளேன்.

மேற்படி நிறுவனம் அடியில்கண்ட சொத்துக்களைப் பொறுத்து முன்றாவது நபரிடமோ, வாங்கியிலோ எவ்விதிலும் அடமானம் போன்ற வில்லங்கத்திற்கு உட்படுத்தவில்லை என்று உறுதி அளிக்கிறேன்.

கிரைய சொத்து விபரம்

1.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜூரி விராலிப்பட்டி கிராமம், பழைய மட்டா எண் 389ல் கண்ட புன்செய் ரீசர்வே நிர் 34/1ல் 1.14.0 ஏர்ஸ்க்கு ஏக்கர் 2 செண்டு 82 ல் கட்டுப்பட்டதும் தற்போது உட்பிரிவின்படி மட்டா நிர் 514ல் கண்ட ரீசர்வே நிர் 34/1Bல் கட்டுப்பட்ட 0.91.00ஏர்ஸ்க்கு ஏக்கர் 2 செண்டு 25-1/2 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

எழுதிக் கொடுப்பவர்




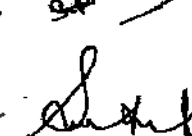
எழுதி வாங்குபவர்

"For Sale of the land in the name of the owner."

PRASAD & COMPANY (PROJECT WORKS) LTD

P. Prasad
Authorised Signatory

...புத்தகம் 2021ம் ஆண்டின்
செய்தியைப் பற்றி 2021

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வடக்கே : பொன்னையாபிள்ளை புன்செய்

கிழக்கே : சுந்தர்ராஜ்நாயுடு புன்செய்

தெற்கே : லெட்சுமியம்மாள் புன்செய்

மேற்கே : நல்லான் புன்செய்

இதற்குள்பட்ட ஏக்கர் 2 செண்டு 25-1/2 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.1,37,555/-

இதுவும்

2.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலிப்பட்டி கிராமம், பழைய பட்டா எண் 282க்கு புதிய பட்டா நிர் 514ல் கண்ட புன்செய் ரீசர்வே நிர் 34/2ல் 1.78.0 ஏர்ஸ்க்கு ஏக்கர் 4 செண்டு 39 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

வடக்கே : கிளாஸ்டன் புன்செய்

கிழக்கே : சுந்தரம்நாயுடு புன்செய் மற்றும் கிளாஸ்டன் புன்செய்

தெற்கே : தனிக்கோடி ரெட்டியார் புன்செய்

மேற்கே : தென்வடல் ஓடை

இதற்குள்பட்ட ஏக்கர் 4 செண்டு 39 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.2,41,450/-

இதுவும்

3.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலிப்பட்டி கிராமம், பழைய பட்டா எண் 282க்கு புதிய பட்டா நிர் 514ல் கண்ட புன்செய் ரீசர்வே நிர் 34/4ல் 0.60.5 ஏர்ஸ்க்கு ஏக்கர் 1 செண்டு 50 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

வடக்கே : தனிக்கோடி ரெட்டியார் புன்செய்

கிழக்கே : சீமான் என்ற வெங்கடசாமிரெட்டி புன்செய்

தெற்கே : அழகம்மாள் புன்செய்

மேற்கே : தென்வடல் ஓடை

இதற்குள்பட்ட ஏக்கர் 1 செண்டு 50 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.82,500/-

இதுவும்

எழுதிக் கொடுப்பவர்


எழுதி வாங்குபவர்

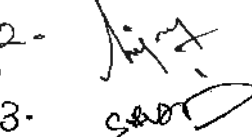
"For பிரசாத் & கம்பெனி புராஜக்ட் ஓர்க்ஸ் லிமிட்"

PRASAD & COMPANY (PROJECT WORKS) LTD


Authorised Signatory

...புத்தகம் 2021... ஆண்டின்
...மீட்டர்... 09

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4.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலியட்டி கிராமம், பழைய பட்டா எண் 282க்கு புதிய பட்டா நிர் 514ல் கண்ட புன்செய் ரீசர்வே நிர் 60/2ல் 0.50.0 ஏர்ஸ்க்கு ஏக்கர் 1 செண்டு

23 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

வடக்கே : நல்லக்குடும்பன் புன்செய்

கிழக்கே : கிளாஸ்டன் புன்செய்

தெற்கே : கிளாஸ்டன் புன்செய்

மேற்கே : ச.முருகன் புன்செய்

இதற்குள்பட்ட ஏக்கர் 1 செண்டு 23 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.67,650/-

இதுவும்

5.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலியட்டி கிராமம், பழைய பட்டா எண் 282க்கு புதிய பட்டா நிர் 514ல் கண்ட புன்செய் ரீசர்வே நிர் 52/3ல் 0.41.0 ஏர்ஸ்க்கு ஏக்கர் 1 செண்டு 1 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

வடக்கே : கிளாஸ்டன் புன்செய்

கிழக்கே : ஓடை

தெற்கே : சந்திரராஜன், ராமசாயிநாயுடு இவர்கள் புன்செய்

மேற்கே : பொன்னையாபிள்ளை புன்செய்

இதற்குள்பட்ட ஏக்கர் 1 செண்டு 1 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.61,610/-

இதுவும்

6.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலியட்டி கிராமம், பழைய பட்டா எண் 282க்கு புதிய பட்டா நிர் 514ல் கண்ட புன்செய் ரீசர்வே நிர் 35/1ல் 0.24.5 ஏர்ஸ்க்கு செண்டு 61ம், புன்செய் ரீசர்வே நிர் 35/2ல் 0.62.5 ஏர்ஸ்க்கு ஏக்கர் 1 செண்டு 55ம், புன்செய் ரீசர்வே நிர் 35/3ல் 0.45.5 ஏர்ஸ்க்கு ஏக்கர் 1 செண்டு 13ம் ஆக கூடியது ஏக்கர் 3 செண்டு 29 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

எழுதிக் கொடுப்பவர்

எழுதி வாங்குபவர்





"For பிரசாத் & கம்பனி ஷாஜக்ட் ஒர்க்ஸ் லிமிட்"

PRASAD & COMPANY (PROJECT WORKS) LTD

P. H. (M)

Authorised Signatory

...புத்தகம் 202...ம் ஆண்டின்
902...ம் நிர் அவணம்...92...

1. 
2. 
3. 
4. 

.6.

வடக்கே : சப்பாநாயுடு புன்செய் நிலம்

கிழக்கே : ஜானகியம்மாள் சப்பம்மாள் இவர்கள் புன்செய் நிலம்

தெற்கே : ராமசாமிநாயுடு புன்செய் நிலம்

மேற்கே : வெட்சமியம்மாள் புன்செய் நிலம்

இதற்குள்பட்ட ஏக்கர் 3 செண்டு 29 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.1,80,950/-

இதுவும்

7. மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலிபட்டி கிராமம், பழைய பட்டா எண் 282க்கு புதிய பட்டா நிர் 514ல் கண்ட புன்செய் ரீசர்வே நிர் 52/2ல் 0.37.0 ஏர்ஸ்க்கு செண்டு 92 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

வடக்கே : ஓடை

கிழக்கே : ஓடை

தெற்கே : சி.சின்னச்சாமியிள்ளை புன்செய் நிலம்

மேற்கே : ச.நல்லாக்குடும்பன் புன்செய் நிலம்

இதற்குள்பட்ட செண்டு 92 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.56,120/-

இதுவும்

ஆக 1 முதல் 7 லக்க சொத்துக்கள் கூடியது ஏக்கர் 14 செண்டு 59-1/2 உள்ள புன்செய் நிலம் தங்களுக்கு கிரையம்.

மேற்படி சொத்து மேற்படி கிராம பஞ்சாயத்து எல்கைக்குள்பட்டது.

மேற்படி சொத்தின் மொத்த தற்கால மார்ட்கெட் மதிப்பு ரூபாய்.8,27,835/-

எழுதிக் கொடுப்பவர்

எழுதி வாங்குபவர்

"For பிரசாத் & கம்பெனி ஸ்ராக்ட் ஓர்க்ஸ் லிமிட்"

PRASAD & COMPANY (PROJECT WORKS) LTD

P. H. (Signature)

Authorised Signatory

புத்தகம் 277 ம் ஆண்டின்

909 ம் நிர் ஆவணம் 29

தாள்களைக் கொண்டது

6 ம் தாள்கள்

சாட்சிகள்

1. P. Raja Kumar

சார்பதிவாளர்

S/o P. Palanisami

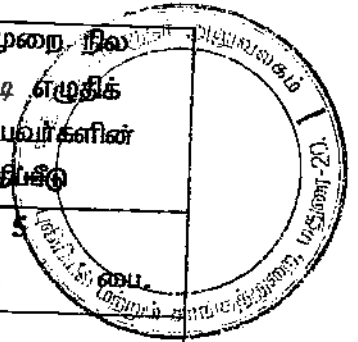
No 1 Kodimangalam

2. P. H. S. N. M. Perumalavai

Semmai P. M.

1968-ம் வருடத்திய சென்னை முத்திரைச் சட்டம் விதி 3(1)
பத்திரங்களின் குறைவு மதிப்பீடு தடுப்பு விதிகள் (ன்) கீழ்தரும்
ஸ்டீப்மெண்ட்.

வரிசை எண்	சர்வே எண்	விஸ்தீரணம் ஏர்ஸ்	சொத்தின் தன்மை	நடைமுறை நில வரப்படி எழுதிக் கொடுப்பவர்களின் மதிப்பீடு
1	2	3	4	5



ஐரிவிராலியட்டி கிராமம்

1	34	1B	செண்டு 225-1/2	செண்டு 1க்கு ரூ.610/-	ரூ.1,37,555/-
2	34	2	செண்டு 439	செண்டு 1க்கு ரூ.550/-	ரூ.2,41,450/-
3	34	4	செண்டு 150	செண்டு 1க்கு ரூ.550/-	ரூ.82,500/-
4	60	2	செண்டு 123	செண்டு 1க்கு ரூ.550/-	ரூ.67,650/-
5	52	3	செண்டு 101	செண்டு 1க்கு ரூ.610/-	ரூ.61,610/-
6	35	1	செண்டு 61	செண்டு 1க்கு ரூ.550/-	ரூ.33,550/-
	35	2	செண்டு 155	செண்டு 1க்கு ரூ.550/-	ரூ.85,250/-
	35	3	செண்டு 113	செண்டு 1க்கு ரூ.550/-	ரூ.62,150/-
7	52	2	செண்டு 92	செண்டு 1க்கு ரூ.610/-	ரூ.56,120/-

ஆக மொத்தம் ஏக்கர் 14 செண்டு 59-1/2 மதிப்பு ரூபாய் 8,27,835/-

..... புத்தகம் 202-1) ம் ஆண்டின்
1962-ம் நிர்வாகம் 20
தாள்களைக் கொண்டது
..... ம் தாள்



எழுதிக் கொடுப்பவர்

எழுதி வாங்குபவர்

"For Rules & Conditions of Sale, see page 10 of this notice."

சார்புதாளர்



தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : மதுரை

வட்டம் : வாடிப்பட்டி

வருவாய் கிராமம் : ஜாரி விராலிப்பட்டி

பட்டா எண் : 514

உரிமையாளர்கள் பெயர்

1. முதன்மை இயக்குநர் பட்டாதாரர் பிரசாத் அண்டு கம்பெனி புராஜக்ட் ஒர்க்ஸ் லிமிட்க்காக

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	
34	1B	0 - 91.00	2.52	--	--	--	--	1558/07-08--117/1408 -- 04-12-2001
34	2	1 - 78.00	4.92	--	--	--	--	1558/07-08--- -- 28-01-2001
34	4	0 - 60.50	1.68	--	--	--	--	1558/07-08--- -- 28-01-2001
35	1	0 - 24.50	0.68	--	--	--	--	1558/07-08--- -- 28-01-2001
35	2	0 - 62.50	1.74	--	--	--	--	1558/07-08--- -- 28-01-2001
35	3	0 - 45.50	1.27	--	--	--	--	1558/07-08--- -- 28-01-2001
52	2	0 - 37.00	1.03	--	--	--	--	1558/07-08--- -- 28-01-2001
52	3	0 - 41.00	1.13	--	--	--	--	1558/07-08--- -- 28-01-2001
60	2	0 - 50.00	1.38	--	--	--	--	1558/07-08--- -- 28-01-2001
		5 - 90.00	16.35					

குறிப்பு2 :



1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 24/14/002/00514/150280 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

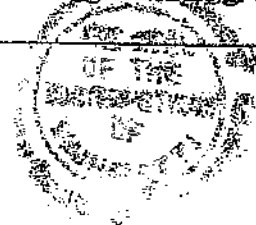
2. இத் தகவல்கள் 16-04-2021 அன்று 10:42:58 AM நேரத்தில் அச்சடிக்கப்பட்டது.

3. கைப்பிடித்ததொன்றின் 2019-2020 ஆம் ஆண்டு பட்டியல் பற்றியும் 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்.

தாள்களைக் கொண்டது

.....ம் தாள்

சாரதிவாளர்



Handwritten signature

15/1



PRASAD & COMPANY (PROJECT WORKS) LIMITED

(ENGINEERS & CONTRACTORS)

REGD. OFFICE : 6-3-871/3, 'SNEHALATA', GREENLANDS ROAD, BEGUMPET, HYDERABAD - 500 016., TELANGANA.

☎ : (040) 66129900 to 66129999 (100 Lines), Fax:(040) 23413687 Email : prasadandcompany@gmail.com, contact@prasadandco.com

CIN : U74210TG1983PLC003842

EXTRACTS OF THE MINUTES OF THE MEETING OF BOARD OF DIRECTORS OF M/s. PRASAD & COMPANY (PROJECT WORKS) LIMITED (THE COMPANY) HELD ON FRIDAY, THE 15TH DAY OF FEBRUARY, 2021, AT THE REGISTERED OFFICE OF THE COMPANY AT 6-3-871/3, 'SNEHALATA', GREENLANDS ROAD, BEGUMPET, HYDERABAD - 500 016, TELANGANA.

Authorisation to Sri. P. Jayaram S/o. Sri. P. Govindaraju, Aged 49 years, to act as an authorized representative of the company.

RESOLVED that the consent of the Board of Directors of the Company be and is hereby authorize Sri. P. Jayaram, S/o. Sri. P. Govindaraju, Aged 49 years, Aadhar No: 2222 8111 0045, Manager (HR) of the company to execute the sale of the our company land which is situated in VIRALIPATTI Village, VADIPATTI (TALUK) at Madurai (Dist) in TAMIL NADU, on behalf of our company.

RESOLVED that Sri. P. Jayaram, S/o. Sri. P. Govindaraju, Aged 49 years, Aadhar No: 2222 8111 0045, Manager (HR) of M/s. Prasad & Company (Project Works) Limited, is authorised to execute the sale of the our company land which is situated in VIRALIPATTI Village, VADIPATTI (TALUK) at Madurai (Dist) in TAMIL NADU as follows on behalf of our company.

RESOLVED further that Sri. P. Jayaram, S/o. Sri. P. Govindaraju, Aged 49 years, Aadhar No: 2222 8111 0045, Manager (HR) of M/s. Prasad & Company (Project Works) Limited shall present the executed sale in the concerned registrar office for completing the registration procedure on behalf of the Company in accordance with registration Act 1908.

VIRALIPATTI (Village) at VADIPATTI (Taluk) in Madurai (Dist).

S. No.	Survey No.	Extent in Acre
1	34/1	2.255
2	34/2	4.39
3	34/4	1.50
4	60/2	1.23
5	52/3	1.01
6	35/1	0.61
7	35/2	1.55
8	35/3	1.13
9	52/2	0.92
	TOTAL :	14.595

.....புத்தகம்.....ம் ஆண்டின்
902.ம் நிர் ஆவணம்.....
தாள்களைக் கொண்டது
.....9.....ம் தாள்

சாப்பிதவாளர்



RESOLVED further that Sri. P. Jayaram, S/o. Sri. P. Govindaraju, Aged 49 years, Aadhar No: 2222 8111 0045 Manager (HR) is also authorised to receive the sale proceed amount in the form of demand draft / cheque which is in the name of our company i.e., M/s. Prasad & Company (Project Works) Limited, payable at Hyderabad, on behalf of our company .

// CERTIFIED TRUE COPY //


PRASAD & COMPANY (PROJECT WORKS) LTD

P. Jayaram
Authorised Signatory

S. Prasad

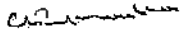
For Prasad & Company (Project Works) Ltd.

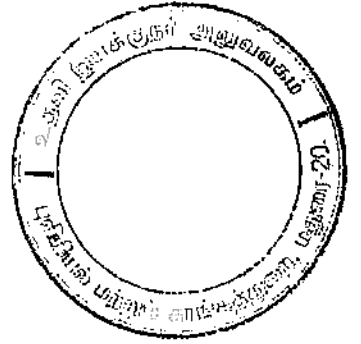
A. Srinivasan
Executive Director

स्थाई लेखा संख्या / PERMANENT ACCOUNT NUMBER
AABCP2299L


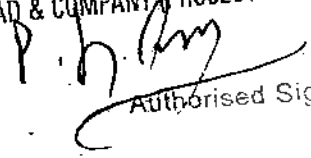
नाम / NAME
PRASAD & COMPANY PROJECT WORKS LIMITED

निगमन/बनने की तिथि / DATE OF INCORPORATION/FORMATION
07-03-1983


 मुख्य आयकर अधिकारी, आन्ध्र प्रदेश
 Chief Commissioner of Income-tax, Andhra Pradesh



PRASAD & COMPANY (PROJECT WORKS) LTD

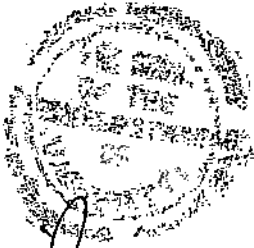

 Authorised Signator


For Prasad & Company (Project Works) Ltd.

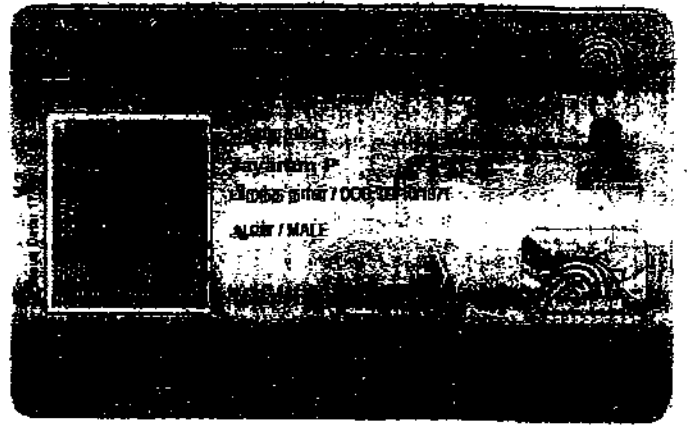
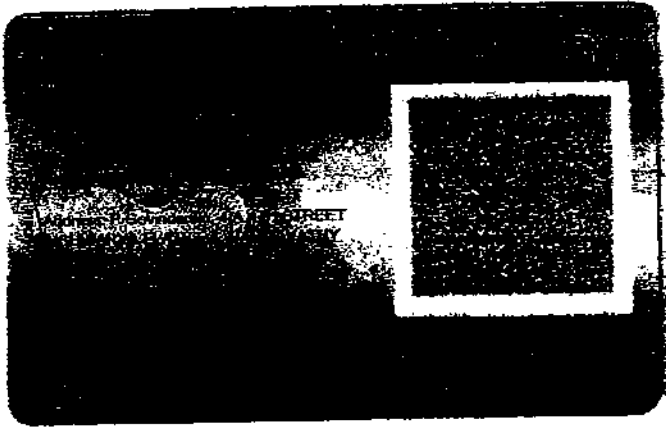

 Executive Director

.....புத்தகம்.....²²¹ ம ஆணை
 902-ம் நீர் ஆவணம்...²².....
 தாள்களைக் கொண்டது
ம.....ம் தாள்


 சார்புத் தவாளர்




 156



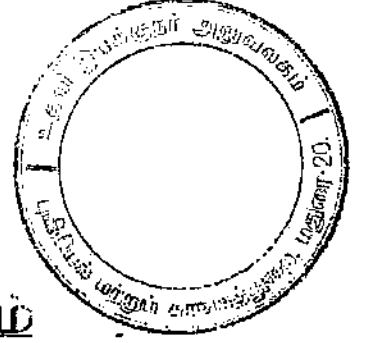
PRASAD & COMPANY (PROJECT WORKS) LTD

P. Prasad
Authorized Signatory

.....புத்தகம் 2021ம் ஆண்டின்
9ம் நேர் ஆவணம்... 29.....
தாள்களைக் கொண்டது
...../.....ம் தாள்

P. Prasad
சான்றிவணம்





அம்பாத்துரை காவல் நிலையம்

சான்று

திண்டுக்கல் மாவட்ட சின்னாள்பட்டி அசல் கிரய ஆவண பத்திரம் எண் 498/2007 அமைச்சர் அனுப்பிய சரகம் அம்பாத்துரை காவல் நிலையம் பெருமாள் கோவில்பட்டி (அ), முருகன்பட்டி காவல் நிலையம் தெற்கு தெருவில் குடியிருந்து வரும் மணிகாலை மகன் சேகர் (54) என்பவர் அம்மையநாக்கனூரில் ஆய்வகம் வரும் பிரசாத் & கம்பெனி லிமிடெட் நிறுவனத்திற்குரிய அசல் கிரய ஆவண பத்திரம் எண் 498/2007 அமைச்சர் அனுப்பிய சரகம் அம்பாத்துரை காவல் நிலையம் சின்னாள்பட்டி பிரிவிலுள்ள ஜெராக்ஸ் எந்திரத்தாரித் திரும்பும் போது அம்பாத்துரை காவல் நிலையம் அருகே கீழே விழுந்து தொலைந்துவிட்டதாக அம்பாத்துரை காவல் நிலையத்தில் கொடுத்த புகார் மனுவை பெற்று அம்பாத்துரை காவல் நிலைய மனு எண் 279/19 பதிவு செய்யப்பட்டு திண்டுக்கல் மாவட்ட துறையின்கீழ் கூடத்திற்கு (C.No.38 /Genl /DCRB /DGL /2019. Dated. 06.03.2019) அனுப்பி வைக்கப்பட்டது. பின்பு காவல்களை அனுப்பி அக்கம் பக்கம் தேடியும் விசாரித்தும் பார்க்கத்தில் மேற்படி அசல் கிரய ஆவணபத்திரம் சினைக்கவில்லை என சான்றளிக்கப்படுகிறது.

.....புத்தகம் 921 ம ஆண்டின்
902ம் நீர் ஆவணம் 92.....
தாள்களைக் கொண்டது
.....மீதம் தாள்

சிரிபீலாணி



சான்று ஆய்வாளர்
அம்பாத்துரை காவல் நிலையம்
திண்டுக்கல் மாவட்டம்

பொது அறிவிப்பு

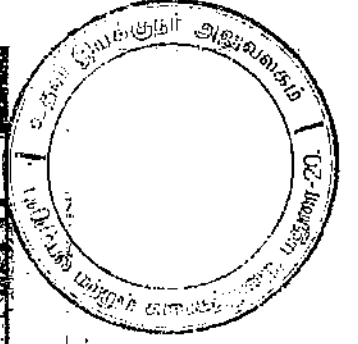
திண்டுக்கல் மாவட்டம், அம்பாத்துரை கிராமம், பெருமள்கோவில்பட்டி-ஆஞ்சல், முருகன்பட்டி, 7/106 தெற்குத் தெருவில் வசிக்கும் மணிக்காளையின் மகன் M.சேகர் அவர்களின் முறையான தகவலின்பேரில் அறிவிக்கும் பொது அறிவிப்பு என்னவென்றால்.

எமது கட்சிக்காரர் அம்மையநாயக்கனாரில் இயங்கி வரும் பிரசாத் அன் கம்பெனியில் (புராஜெக்ட் ஓர்க்) மேற்பார்வையாளராக பணிபுரிந்து வருகிறார். மேற்படி நிறுவனத்தின் பெயரில் உள்ள கிரைய பத்திரம் வாடிப்பட்டி சாஸ்திவகத்தில் பதிவு செய்யப்பட்டுள்ளது. கிரையப்பத்திரத்தின் ஆவண எண். 498/2007 நம்பராக பதிவு செய்யப்பட்டது. கடந்த 13.7.2018ம் தேதி அம்பாத்துரை பஸ்நிலையம் அருகில் உள்ள ஜெராக்ஸ் கடையில் ஜெராக்ஸ் எடுத்து விட்டு மறும் சில ஆவணங்களை எடுத்துக் கொண்டு வந்துள்ளார். அதை ரயில் நிலையம் அருகில் வந்து பார்த்த பொழுது கிரைய ஆவண எண். 498/2007க்குரிய அசல் ஆவணம் காணாமல் போய் விட்டது. அதனையாரேனும் கண்டுபிடித்தால் எமது கட்சிக்காரரிடமோ அல்லது என்னிடமோ கொடுக்க பாறு அறிவிக்கப்படுகிறது.

S.சண்முகசுந்தரம், B.A., B.L., (ML)

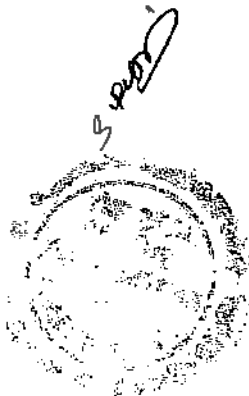
வக்கீட் & நோட்டரி

36, CSI காபி ஷூ, AMC ரோடு, திண்டுக்கல்.



(பத்தகம் 202) ஆண்டின்
 909ம் நாள் ஆவணம்... 22
 தாள்களைக் கொண்டது
13...ம் தாள்

ச.சண்முகசுந்தரம்



TamilNadu Police
CCTNS - Citizen Portal
Online Acknowledgement

Reference Number : CUM18117072 Date of Complaint : 22-12-2018
Date of Occurrence : 13-07-2018
Subject : Document missing.

Complainant Name : M SEKAR
Complainant Address : 7/106, SOUTH STREET, MURUGANPATTI, PERUMALKOVILPATTI
POST, AMBATHURAI, DINDIGUL - 624302.
Phone Number(s) : 9942421619
Email Id : -

To know the status visit : <http://eservices.tnpolice.gov.in>

Report taken on 22/12/2018 11.05

.....புத்தகம் 2021 ம் ஆண்டின்
டிசம்பர் மீர் ஆவணம் 22.....
தாள்களைக் கொண்டது
...../14.....ம் தாள்

சார்பதிவாளர்



160

விஜயகாந்திக் பி
Vijayakanthick P
 பிறந்த நாள்/DOB : 29/07/1982
 ஆண்கள் / Male

2679 7284 8621

ஆதி ஆதார், எனது அடையாளம்

Signature

முகவரி:
 தஞ்சை / தாய் கோடு
 பழனிசாமி, 1/152 நடு தெரு,
 நம்பர் 1 கோடிமங்கலம்,
 கோடிமங்கலம், மதுரை,
 கோடிமங்கலம், தமிழ் நாடு,
 622234

Address:
 S/O Palanisamy, 1/152, MIDDLE
 STREET, NO 1/152
 KODIMANGALAM
 Kodimangalam, Madurai,
 Kodimangalam, Tamil Nadu,
 622234

2679 7284 8621

பழனிச்சாமி ப
Palanisamy P
 பிறந்த நாள்/ DOB: 25/08/1956
 ஆண் / MALE

8397 4686 8678

எனது ஆதார், எனது அடையாளம்.

முகவரி:
 S/O பழனிச்சாமி வே, எண்
 2/3, நடு தெரு,
 திருவடையாளம்,
 திருவேடகம், மதுரை,
 தமிழ்நாடு - 625234

Address:
 S/O Palanisamy V; 2/3, NADU
 THERU, KODIMANGALAM,
 Thiruvadagam, Madurai,
 Tamil Nadu - 625234

8397 4686 8678

MEERA AADHAAR, MERI PEHACHAN

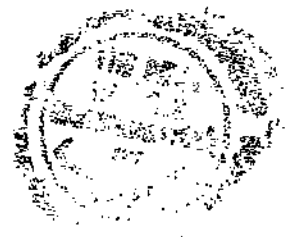
Signature

Signature

.....புத்தகம் 2021.....ம ஆண்டின்
 9.9.21ம் நாள் ஆவணம் 22.....
 தாள்களைக் கொண்டது
15.....ம் தாள்

Signature
 சார்பதிவாளர்

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தகவல்

- ஆதார் அடையாளத்திற்கான சான்று, குடியுரிமைக்கு அல்ல
- பாதுகாப்பான QR குறியீடு ஆப்லைன் XML / ஆன்லைன் அங்கீகாரத்தைப் பயன்படுத்தி அடையாளத்தை சரிபார்க்கவும்
- இது எலக்ட்ரானிக் செயல்முறை மூலம் தயாரிக்கப்பட்ட கடிதமாகும்.

INFORMATION

- Aadhaar is a proof of identity, not of citizenship.
- Verify identity using Secure QR Code/ Offline XML/ Online Authentication.
- This is electronically generated letter.

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும்.
- பல்வேறு அரசு மற்றும் அரசு சாரா சேவைகளை எளிதில் பெற ஆதார் உதவுகிறது
- உங்கள் மொபைல் எண் மற்றும் மின்னஞ்சல் ஐடியை ஆதாரில் புதுப்பிக்கவும்
- mAadhaar செயலியைப் பயன்படுத்தி உங்கள் ஸ்மார்ட் போனில் ஆதாரை எடுத்துச் செல்லுங்கள்
- Aadhaar is valid throughout the country.
- Aadhaar helps you avail various Government and non-Government services easily.
- Keep your mobile number & email ID updated in Aadhaar.
- Carry Aadhaar in your smart phone – use mAadhaar App.



இந்திய அரசாங்கம்
Government of India

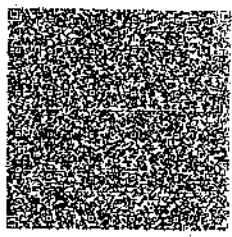
இந்திய தனிப்பட்ட அடையாள ஆணைய அமைப்பு
Unique Identification Authority of India

பதிவேட்டு எண்/ Enrolment No.: 2040/80209/02369

Download Date: 29/10/2020

To
முத்துப்பாண்டி சு ரா
Muthupandi S R
S/O: Rajendran
325
melakka! main road
kochadal
Madurai South
Arasaradi
Madurai Tamil Nadu - 625016
9842133884

Signature valid



Issue Date: 15/07/2016

உங்கள் ஆதார் எண் / Your Aadhaar No. :

4231 9026 2336
VID : 9117 8740 1780 5176

எனது ஆதார், எனது அடையாளம்

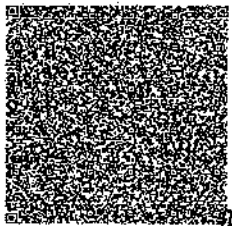


Unique Identification Authority of India



முதுப்பாண்டி சு ராஜேந்திரன், 325,
மெலக்கால் மெயின் ரோடு, கோச்சடல்,
மதுரை தெற்கு மதுரை,
மதுரை - 625016

Address:
S/O: Rajendran, 325, melakka! main road,
kochadal, Madurai South, Madurai,
Tamil Nadu - 625016



4231 9026 2336
VID : 9117 8740 1780 5176

1947 | help@uidai.gov.in | www.uidai.gov.in



Unique Identification Authority of India

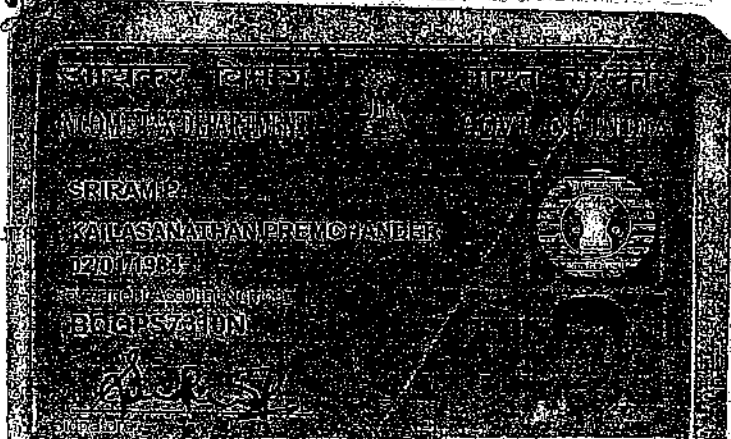
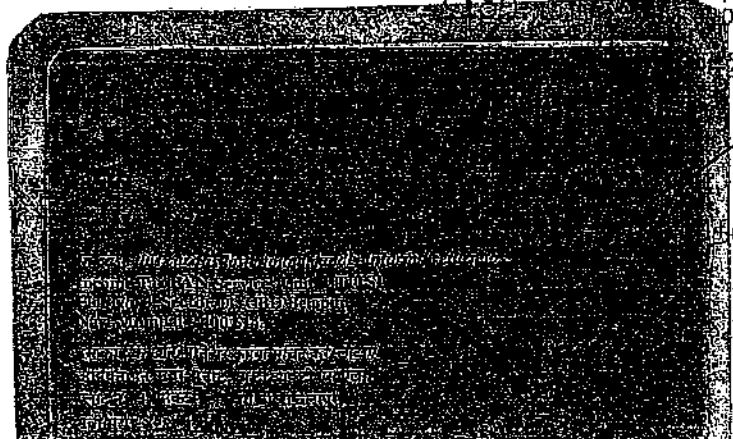



முத்துப்பாண்டி சு ரா
Muthupandi S R
பிறந்த நாள்/DOB: 07/01/1986
ஆண்/ MALE

Issue Date: 15/07/2016

4231 9026 2336
VID : 9117 8740 1780 5176


எனது ஆதார், எனது அடையாளம்





ராஜா கார்த்திக்
Raja Karthik
 பிறந்த நாள்/DOB: 25/05/1984
 ஆண் / MALE
 Issue Date: 24/06/2025


3390 0998 8225
VID : 9197 6270 6954 7943
 எனது ஆதாரம் எனது அடைபாடாகும்



செல்வசி
Selvasi
 பிறந்த நாள்/DOB: 25/05/1984
 ஆண் / MALE
 Issue Date: 24/06/2025


3390 0998 8225
VID : 9197 6270 6954 7943
 எனது ஆதாரம் எனது அடைபாடாகும்

P. Raja Karthik



ஹர்கிஷன் குமார்
HARKISHAN KUMAR
 பிறந்த நாள்/DOB: 30/06/1960
 ஆண் / MALE
 Issue Date: 24/06/2025

7089 0757 2428
VID : 9147 8238 4047 7252
 எனது ஆதாரம் எனது அடைபாடாகும்

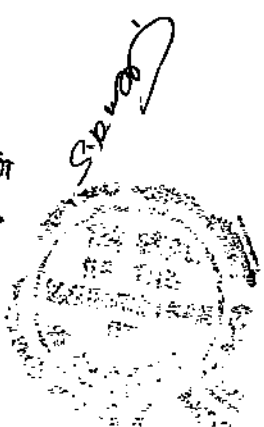


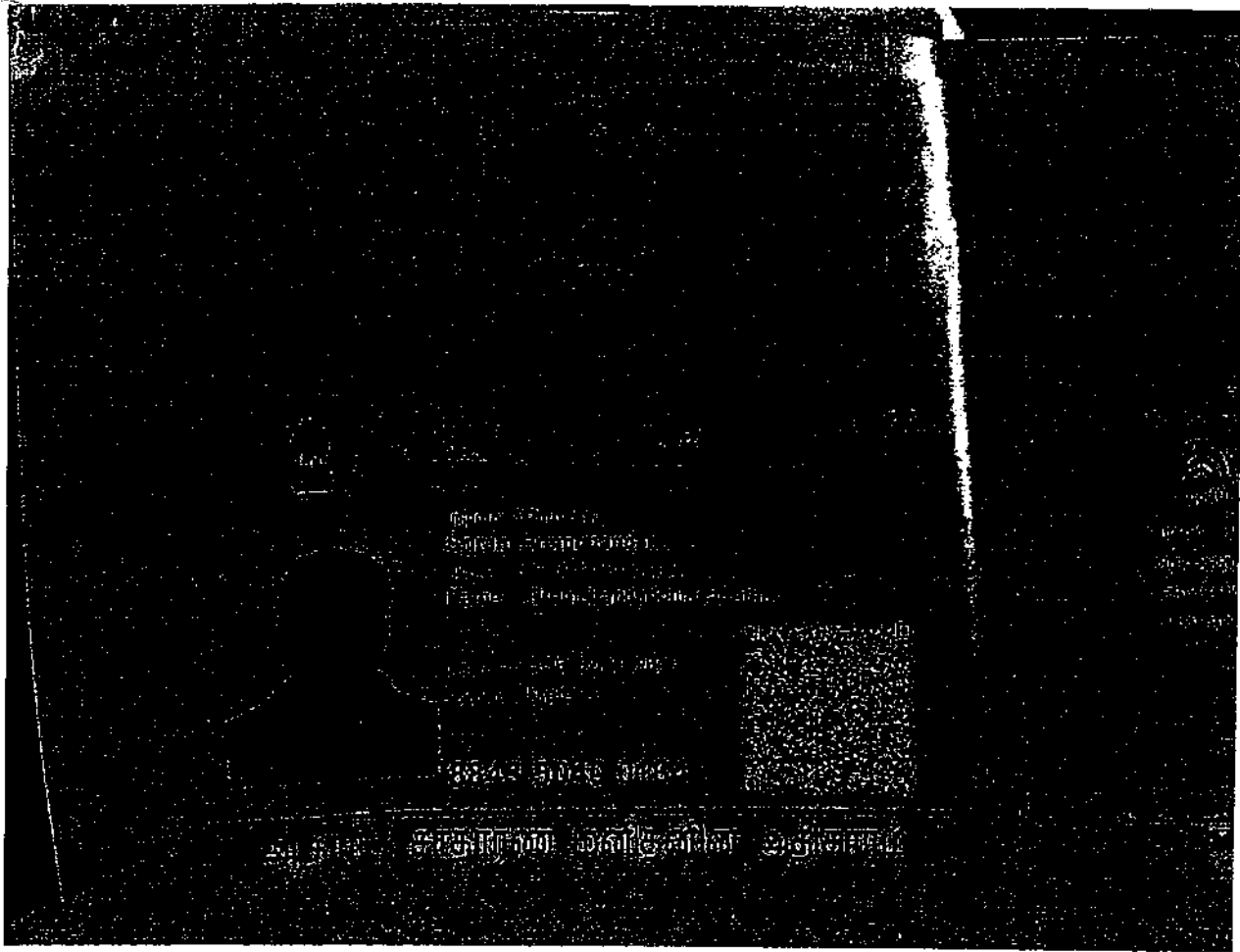
செல்வசி
Selvasi
 பிறந்த நாள்/DOB: 30/06/1960
 ஆண் / MALE
 Issue Date: 24/06/2025

7089 0757 2428
VID : 9147 8238 4047 7252
 எனது ஆதாரம் எனது அடைபாடாகும்

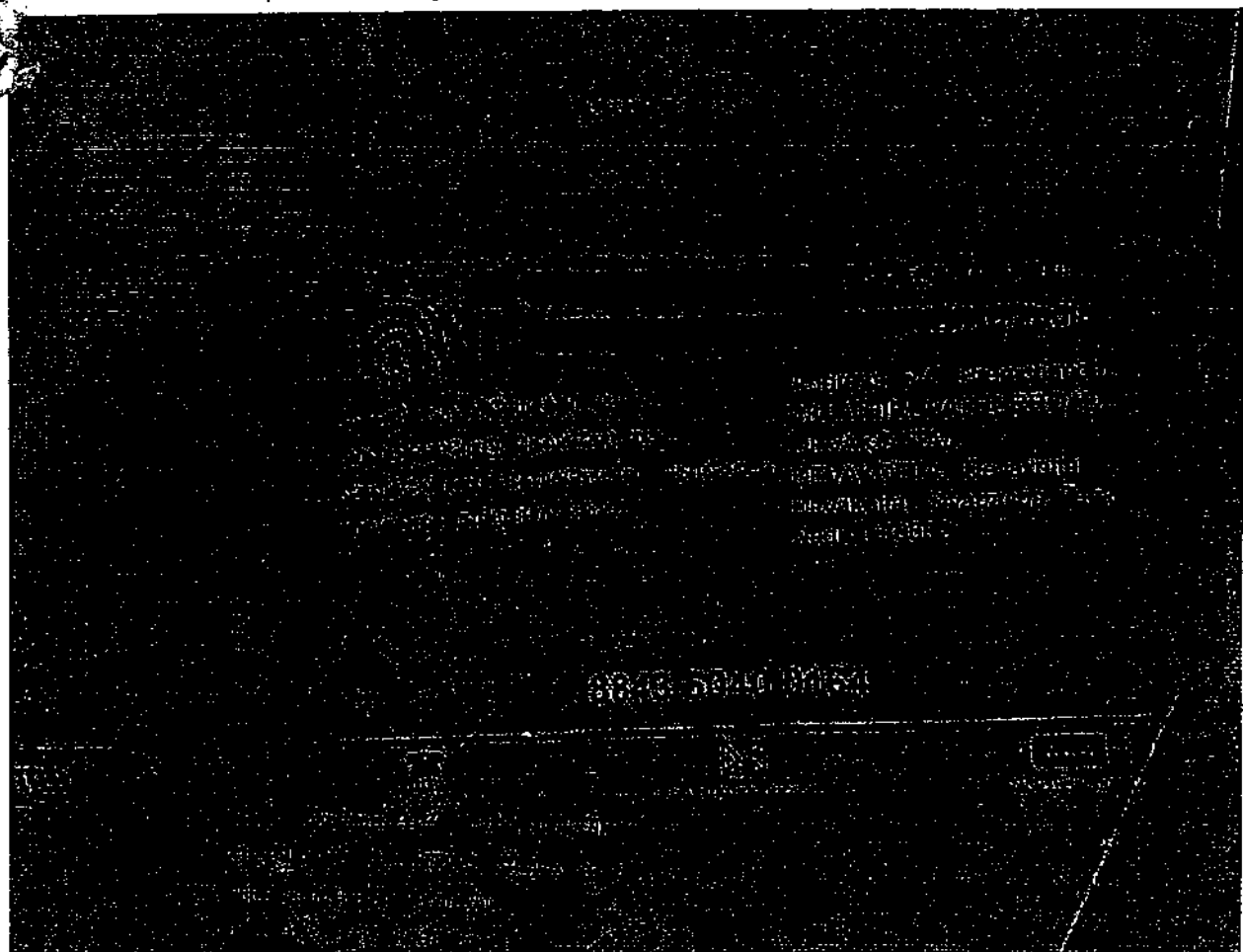
PHS
 1...புத்தகம்...22...ம் ஆண்டின்
 909...ம் நீர் ஆவணம்...22...
 தாள்களைக் கொண்டது
7.....ம் தாள்


 காப்பாளர்





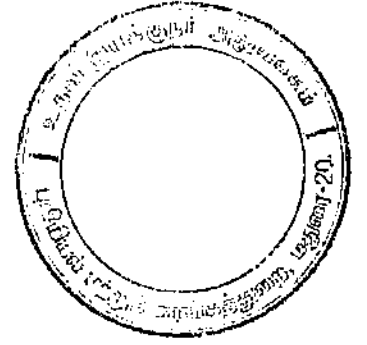
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164



Government of Tamil Nadu
Registration Department
Acknowledgement



Reference Details

SRO Name: Vadipatti
Application No.: S01LANDVV202104160766546
Transaction No.: REG202104169640548
Transaction Date: 16/04/2021

Application Details

Applicant Name: PALANISAMY
Service Type: Document Registration (New) in SRO
Stamp Duty (₹): 37969/-
Registration Fee (₹): 33128/-
Computer Fee (₹): 500/-
CD Fees (₹): 100/-

Payment Details

Name of the Bank: SBI
Bank Ref. No.: IK0BBZWPY5
Payment Mode: Online
Amount Paid (₹): 71697/-
Payment Status: Success
Payment Date: 16/04/2021

தேனும் சந்தேகங்கள்/குறைகள் இருப்பின் கீழ்க்கண்ட வழிமுறைகளில் தெரிவிக்கலாம்

கட்டணமில்லா தொலைபேசி எண்

1800 102 5174

மின்னஞ்சல் முகவரி

helpdesk@tnreginet.net

புத்தகம் 2021 ம் ஆண்டின்
902 ம் நாள் ஆவணம் 902
நாள்களைக் கொண்டது
19 ம் தாள்

சார்பதிவாளர்



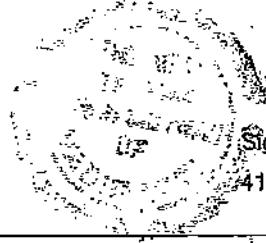
Handwritten signature

165

CERTIFICATE UNDER SECTION 42 OF THE INDIAN STAMP ACT 1899

S.No 264 of 2021

I hereby certify that a sum of ₹ 37,969/- (Rupees Thirty Seven Thousand Nine Hundred and Sixty Nine only) on account of deficit stamp duty has been levied under section 41 of the Stamp Act in respect of this instrument from Mr. பழனிச்சாமி residing at டோர் நர் 2/3, நடுத் தெரு, கொடிமங்கலம்,, Madurai, Tamil Nadu, India, 625234.



Sub Registrar: Vadipatti

Date: 16/04/2021

Signature of Sub Registrar and Collector under Section 41 of the Indian Stamp Act

Presented in the office of the Sub Registrar of Vadipatti and fee of ₹ 33,728/- paid at 01:34 PM on the 16/04/2021 by

Left Thumb



Additions as per recitals of document

Execution admitted by

Left Thumb



Additions as per recitals of document

Claim admitted by

Left Thumb



Additions as per recitals of document

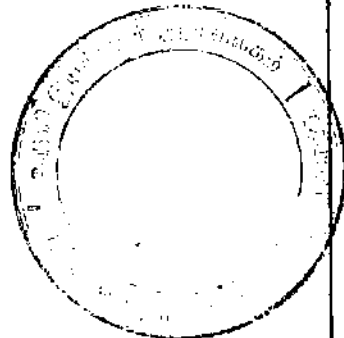
சார்பதிவாளர்

Claim admitted by

Left Thumb



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Additions as per recitals of document

Claim admitted by

Left Thumb



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Additions as per recitals of document

Claim admitted by

Left Thumb



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Additions as per recitals of document

Identified By

1. *[Handwritten signature]*

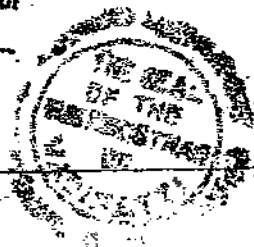
Mr. RAJAKARTHICK Son of PALANISAMY NO.2/3A, MIDDLE STREET, KODIMANGALAM, Madurai, Tamil Nadu, India, 625234.

2. *[Handwritten signature]*

Mr. HARIKRISHNAN Son of PERUMAL NO.1/61, NORTH STREET, VATIPATTI TALUK, Madurai, Tamil Nadu, India, 625218.

16th day of April 2021

.....புத்தகம்.....ம் ஆண்பின்
 902ம் நீர் ஆவணம் 92
 தாள்களைக் கொண்டது
ம் தாள்கள்



[Handwritten signature]


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 KATHIRESAN N
 Sub Registrar
 Vadipatti

சாம்பதிவாளர்

Registered as Number R/Vadipatti/Book-1/902/2021.

Date: 16/04/2021

Vadipatti


KATHIRESAN N
Sub Registrar



.....1 புத்தகம்.....2021 ம் ஆண்டின்
902 ம் நீர் ஆவணம்...22.....
தாள்களைக் கொண்டது
.....22.....ம் தாள்


சார் திவான்





भारतीय गैर न्यायिक INDIA NON JUDICIAL

एक हजार रुपये

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TEN THOUSAND RUPEES

INDIA

கமீழ்நாடு தமிழ்நாடு TAMILNADU

D 983300

A. மருகாசாந்தம், M.A., T.T.G.
R.O.C. No. 5800/B1/2008-1
16. அனிகுசி தெரு. கணபதி நகர்
புகழ் விளாட்டுப்பு. மதுரை

2 NOV 2020

பிழனிச்சாமி
மதுரை

ரூபாய் 5,45,340/-க்கு புஞ்சை நிலங்கள்

சுத்தக்கிரைய சாசனம்

2020ம் வருடம் நவம்பர் மாதம் 02ம் தேதி

மதுரை-625 234, கொடியங்கலம், நடுத்தெரு, டோர் எண் 2/3 வீட்டில் வசிக்கும் திரு.P.பழனிபாண்டி அம்பலம் அவர்கள் குமாரர் திரு.P.பழனிச்சாமி (ஆதார் எண் 8397 4686 8678) அவர்கள்-1, மதுரை-16, கோச்சடை, மூலக்கால் வெயின் ரோடு, டோர் நிர் 325வீட்டில் வசிக்கும் திரு.ராஜேந்திரன் அவர்கள் குமாரர் திரு.R.முத்துபாண்டி (ஆதார் எண் 4231 9026 2336) அவர்கள்-2, சிவகங்கை-630 302, தேவக்கோட்டை, திருப்பத்தூர் ரோடு, டோர் நிர் 484 வீட்டில் வசிக்கும் திரு.பிழைச்சந்தர் அவர்கள் குமாரர் திரு.P.முரளி (ஆதார் எண் 8843 5040 0164) அவர்கள்-3, இந்த மூன்று பேர்களுக்கும்

எழுதிக் கொடுப்பவர்கள்

எழுதி வாங்குபவர்கள்

1. சி. பி. சி.

2. R. B. S.

3. M. R. M.

1. M. P. S.

புத்தகம் 2020ம் ஆண்டின்
2110ம் நிர் ஆவணம் 23
புத்தகங்களைக் கொண்டு
.....ம் தான்

சாட்சிகள்

1. E. S. S.
2. S. S. S.
3. S. S. S.

169

திண்டுக்கல் -624 302, ஆத்தூர் தாலுகா, அம்பத்துரை, செட்டியப்பட்டி கிராமம், டோர் நர் 1/1 வீட்டில் வசிக்கும் திரு.தாசையாகவுண்டர் அவர்கள் குமாரர் திரு.முருகன் (ஆதார் எண் 6614 3632 8512) அவர்கள்-1, மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், தனிச்சியம் கிராமம் உள்கடை வடுகப்பட்டியில் வசிக்கும் லேட் திரு.M.இராதாகிருஷ்ணன் அவர்கள் மனைவி திருமதி.புவனாதேவி (ஆதார் எண் 9554 0621 3209) அவர்கள்-2, மேற்படிபாரி குமாரர் திரு.R.முத்துபாரதி (ஆதார் எண் 8452 6785 0267) அவர்கள்-3, மேற்படி 2வது நபரின் குமாரச்சி திருமதி.பாமுனி (ஆதார் எண் 9402 5092 5848) அவர்கள்-4 இந்த நான்கு பேர்களும் சேர்ந்து சம்மதித்து எழுதிக்கொடுத்த பஞ்சை நிலங்கள் சுத்தக்கிரைய சாசனம் என்னவென்றால்.

அடியிற்கண்ட சொத்துவியரத்தில் கட்டுப்பட்ட 1,2 & 3 வது லக்க சொத்துக்களைப் பொறுத்து எங்களில் 1 வது நபர் திரு.முருகன் அவர்களும் எங்களில் 2வது நபரின் கணவரும் 3 & 4நபர்களுக்கு தகப்பனாருமான திரு.M.இராதாகிருஷ்ணன் அவர்களும் சேர்ந்து கூட்டாக தங்கள் சுயவருமானத்தைக் கொண்டு தங்களுடைய பெயருக்கு கடந்த 17.09.2010ம் தேதியில் வாடிப்பட்டி சார் பதிவகம் 1புக் 2022/2010நர் கிரைய தஸ்தாவேசு மூலம் கிரையம் பெற்றதையும்

அடியிற்கண்ட சொத்துவியரத்தில் கட்டுப்பட்ட 4 & 5வது லக்க சொத்துக்களைப் பொறுத்து எங்களில் 1 வது நபர் திரு.முருகன் அவர்களும் எங்களில் 2வது நபரின் கணவரும் 3 & 4நபர்களுக்கு தகப்பனாருமான திரு.M.இராதாகிருஷ்ணன் அவர்களும் சேர்ந்து கூட்டாக தங்கள் சுயவருமானத்தைக் கொண்டு தங்களுடைய பெயருக்கு கடந்த 17.09.2010ம் தேதியில் வாடிப்பட்டி சார் பதிவகம் 1புக் 2023/2010நர் கிரைய தஸ்தாவேசு மூலம் கிரையம் பெற்றதையும் சேர்த்து மேற்படி இருவரும் தங்கள் கைவசம் வைத்து யாதொரு ஆட்சேபனையின்றி அனுபவித்து வருகையில் மேற்படி திரு.M.இராதாகிருஷ்ணன் அவர்கள் கடந்த 7.06.2020ம் தேதியில் காலம் சென்ற பின் மேற்படிபாரரின் பாகம் இந்த வாரிசரிமை சட்டப்படி அன்னாருடைய நேரடி வாரிசுகளான எங்களில் 2,3 & 4 நபர்களுக்கு பாத்தியப்பட்டு அதுமுதல்

எழுதிக் கொடுப்பவர்கள்

எழுதி வாங்குபவர்கள்

1. திரு.முருகன்

1. S. S. S. S. S.

2. R. Buvaredevi ம் நர் ஆவணம் 23

தாளகளைக் கொண்டது

3. M. R. M. S. S.

4. M. R. B. S. S.

பதிவாளர்

நாங்கள் அனைவரும் கூட்டாக அனுபவித்து வருகிற கீழ்க்கண்ட சொத்து விபரத்தில் கட்டுப்பாட்ட புஞ்சை நிலங்களுக்கும் அதில் எங்களுக்குள்ள யாவற்று சர்வசுதந்திர சகல பாத்தியங்களையும் உரிமைகளையும் சேர்த்து நான்கு தங்களுக்கு சத்தக்கிரையம் ரூபாய். 5,45,340/- (ரூபாய் ஐந்து லட்சத்தி நான்கு ஐந்தாயிரத்தி முன்னூற்றி நூற்பது)க்கு பேசி முடிவு செய்து மேல்கண்ட கிரையத்தொகை ரூபாய். 5,45,340/- (ரூபாய் ஐந்து லட்சத்தி நான்கு ஐந்தாயிரத்தி முன்னூற்றி நூற்பது)ம் நான்கள் இன்று நேரில் தங்களிடம் இருந்து எங்கள் துணிய அறிவிருத்தி மற்றும் இது மேன்மை செலவினங்களுக்காக வேண்டி ரொக்கம் பெற்றுக்கொண்டு எங்கள் பற்றாகி விட்டபடியால் மேற்படி தொகைக்கு அறுதிக் கிரையமாக கீழ்க்கண்டசொத்து விபரத்தில் கட்டுப்பாட்ட புஞ்சை நிலங்களை இன்று முதல் நான்கள் என்டுண்டைக்கும் சர்வசுதந்திர கிரையபாத்தியமாய், புத்திர யொத்திர பரம்பரையாய் நானாதி வினியோக விற்றகிரையங்களுக்கு யொக்கியமாய் ஆண்டு அனுபவித்து சகத்தில் இருந்து வருவீராகவும்.

இத்தடன் தங்கள் பெயருக்கு மட்டா மற்றும் வரிவகையறாக்களை மாற்றக்கோரி மனுக்களும் கொடுத்துள்ளோம்.

அடியில்கண்ட சொத்துக்களைப் பொறுத்து வேறு முன் வில்லங்கமோ பாத்தியக் குறைவுகளோ ஏதும் இல்லை யீறி ஏதேனும் வில்லங்கமோ, பாத்தியக்குறைவோ இருந்து வெளிப்படின மேற்படி வில்லங்கத்தை நான்களே முன்னின்று எங்கள் சொந்தச் செலவிலும், சொந்தப் பொறுப்பிலும் மேற்படி வில்லங்கத்தை நான்கள் தங்களுக்கு நிவர்த்தி செய்து கொடுப்போமாகவும்.

அடியில்கண்ட சொத்தின் பொவுசனையும் நான்கள் இன்று தங்கள் வசம் ஒப்படைத்து விட்டோம். இனி இன்று முதல் அடியில்கண்ட சொத்தில் எங்களுக்கோ அல்லது எங்களுடைய வாரிசுகளுக்கோ யாதொரு பாத்தியமும், பின் தொடர்ச்சியும், உரிமையும், சம்பந்தமும் கிடையாது.

இதற்கு ஆதரவாக மேற்படி 17.09.2010ம் தேதி 2022/2010நிர் அசல் கிரைய பத்திரத்தையும் மேற்படி 17.09.2010ம் தேதி 2023/2010நிர் அசல் கிரைய பத்திரத்தையும் மேற்படி திரு. M. இராத்தாகிருஷ்ணன் அவர்களின் இறப்பு மற்றும் வாரிசு சான்றிதழ் இவைகளின் ஜெராக்கஸ் காப்பிகளையும் ஏனைய ஆதரவு தஸ்தாவேசக்களையும் நான்கள் இன்று தங்கள் வசம் கொடுத்துள்ளோம்.

எழுதிக் கொடுப்பவர்கள்

எழுதி வாங்குபவர்கள்

1. 

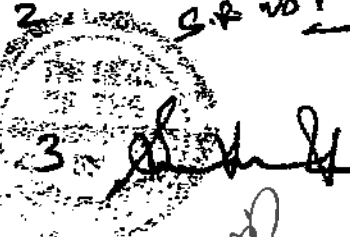
1. 

2. R. Buvanadevi

1. புத்தகம் 2020ம் ஆண்டின்
2010ம் நிர் ஆவணம் 23
தாள்களைக் கொண்டது
.....ம் தாள்

2. 

3. M. R. M. Bui

3. 

4. M. R. Bui


சாப்பிடுவாளர்

.4.

கிரைய சொத்து விபரம்

1.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலிப்பட்டி கிராமம், பழைய பட்டா எண் 525க்கு புதிய பட்டா எண் 564க்கு சேர்ந்த புன்செய் ரீசர்வே நிர் 62/2ல் 0.46.5 ஏர்ஸ்க்கு ஏக்கர் 1 செண்டு 15 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

வடக்கே : மாரியம்மாள் புன்செய்

கிழக்கே : இதன் 2 வது லக்க சொத்து

தெற்கே : A.ராமசாமிரெட்டி புன்செய்

மேற்கே : குருசாமி, மாரியம்மாள் இவர்கள் புன்செய்

இதற்குள்பட்ட ஏக்கர் 1 செண்டு 15 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.70,150/-

2.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலிப்பட்டி கிராமம், பழைய பட்டா எண் 525க்கு புதிய பட்டா எண் 564க்கு சேர்ந்த புன்செய் ரீசர்வே நிர் 60/3ல் 1.56.0 ஏர்ஸ்க்கு ஏக்கர் 3 செண்டு 85 உள்ள புஞ்சை நிலத்திற்கு நான்குமால் விபரம்

வடக்கே : முருகவேல்ராஜன் புன்செய்

கிழக்கே : ஓடை

தெற்கே : சங்கரவடிவு புன்செய்

மேற்கே : இதன் 1 வது லக்க சொத்தும் ராமசாமிரெட்டி புன்செய்யும்

இதற்குள்பட்ட ஏக்கர் 3 செண்டு 85 உள்ள புஞ்சை நிலமும்

இதன் மதிப்பு ரூபாய்.2,34,850/-

3.மதுரை வடக்குப் பதிவு மாவட்டம், வாடிப்பட்டி சார் பதிவகம், வாடிப்பட்டி தாலுகா, ஜாரி விராலிப்பட்டி கிராமம், நில உரிமைபதிவேட்டு எண் 204243ல் கண்ட பழைய பட்டா எண் 494க்கு புதிய பட்டா எண் 564க்கு சேர்ந்த புன்செய் ரீசர்வே நிர் 33/3ல் 0.54.0 ஏர்ஸ்க்கு ஏக்கர் 1 செண்டு 33 ம் பழைய பட்டா

எழுதிக் கொடுப்பவர்கள்

எழுதி வாங்குபவர்கள்

1. சா. சிவசுந்தரி

1. ச. சிவசுந்தரி

2. R. Buvanadevi

2. S. சிவசுந்தரி

3. M. R. M. சிவசுந்தரி

.....புத்தகம்...20...ம் ஆண்டின்

21.12...ம் நிர் ஆவணம்...23.....

தாள்களைக் கொண்டது

.....4.....ம் தாள்

4. M. R. B. சிவசுந்தரி

சார்பதிவாளர்

172

வடக்கே : குமார் பன்செய் நிலம்
கிழக்கே : ராமசாமிநாயுடு பன்செய் நிலம்
தெற்கே : குமார் பன்செய் நிலம்
மேற்கே : தென்வடல் ஓடை

இதற்குள்பட்ட ஏக்கர் 1 செண்டு 94 உள்ள பஞ்சாயத் நிலமும்

இதன் மதிப்பு ரூபாய்.1,18,340/-

ஆக 1 முதல் 5 லக்க சொத்துக்கள் கூடியது ஏக்கர் 8 செண்டு 94 உள்ள பன்செய் நிலம் தங்களுக்கு கிராமம்

மேற்படி சொத்து மேற்படி கிராம பஞ்சாயத்து எல்கைக்குள்பட்டது.

மேற்படி சொத்தின் மொத்த தற்கால மார்டெட் மதிப்பு ரூபாய்.5,45,340/-

எழுதிக் கொடுப்பவர்கள்

எழுதி வாங்குபவர்கள்

1. குமார் பன்செய்
2. R. Buvaredevi
3. M.R.M.Bani
4. M.R.Bh.

1. [Signature]
2. [Signature]
3. [Signature]

சாட்சிகள்

1. [Signature] 9/0 P. Palani Swamy No 1 Kodimoglam Madurai

[P.VIJAYA KARTHICK]

2. [Signature] 9/0 P. Palani Swamy 1/35 கி.மீ. தொழில்நிலை மதுரை

[A.VIJAY]

தயாரித்தவர்

[Signature]

(பா.மனோகரன்) 67,பழங்காநத்தம்,மதுரை-3.

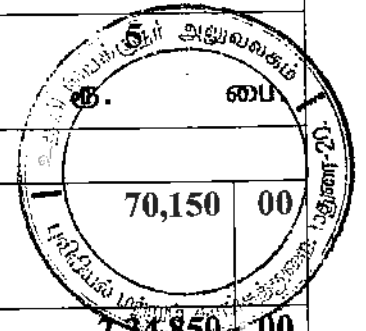
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புத்தகம் 2020 ம் ஆண்டு
பு.ம.நி. ஆவணம் 2020
தாள்களைக் கொண்டது
6 ம் தாள்

[Signature]
சார்பதிவாளர்



எண்	ஏர்ஸ்	தன்மை	வரப்படி எழுதிக் கொடுப்பவர்களின் மதிப்பீடு
1	2	3	4
விராலிபட்டி கிராமம்			
1	62	2 ஏக்கர் 1 செண்டு 15	செண்டு 1க்கு ரூ.610/-
2	60	3 ஏக்கர் 3 செண்டு 85	செண்டு 1க்கு ரூ.610/-
3	33	3 ஏக்கர் 1 செண்டு 33	செண்டு 1க்கு ரூ.610/-
4	33	4 செண்டு 10	செண்டு 1க்கு ரூ.610/-
5	34	1A செண்டு 57	செண்டு 1க்கு ரூ.610/-
6	34	3 ஏக்கர் 1 செண்டு 94	செண்டு 1க்கு ரூ.610/-
ஆக மொத்தம்		ஏக்கர் 8 செண்டு 94	
			70,150 00
			2,34,850 00
			81,130 00
			6,100 00
			34,770 00
			1,18,340 00
			5,45,340 00



எழுதிக் கொடுப்பவர்

1. தா. செல்வி
2. R. Buvanadevi
3. M.R.M. Buni
4. M.R. Bhi

எழுதி வாங்குபவர்

1. ச. சுவாமி
2. ச. சுவாமி
3. ச. சுவாமி

.....புத்தகம் 2020 ஆண்டின்
21.1.2020 நர் ஆவணம்...23.....
தாள்களைக் கொண்டது
.....7.....ம் தாள்

சார்பதிவாளர்



175

भारत सरकार

भारतीय किसान पटवार्ता विभाग

भारतीय किसान पटवार्ता विभाग

कृषि विभाग, दिल्ली



पंजीकृत नाम

Palanisamy P

पंजीकृत तिथि DOB: 25/08/1956

लिंग / MALE



पता:

50 Palaniyandavu 3rd Nalla

23, 6th Street

Thiruvadagam Madurai

Tamil Nadu 625234

Address:

50 Palaniyandavu 3rd Nalla

THIRU. KODIMANGALAM,

Thiruvadagam Madurai

Tamil Nadu 625234

8397 4686 8678

8397 4686 8678

आधार कार्ड प्राप्त करने के लिए कृपया संपर्क करें।

MERA AADHAAR, MERI PEHACHAN

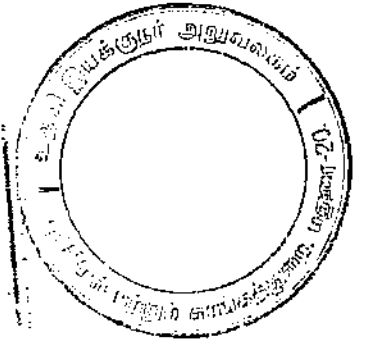
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Handwritten signature



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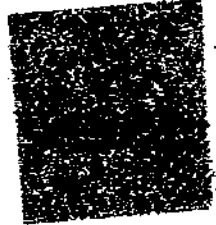


Enrolment No.: 2640/80209/02209

முதுகூலி & சி
Muthupandi S R
S/O Rajendran
225
Melakal main road
Kochada
Madurai South
Keezharai
Madurai Tamil Nadu - 625016
9842133864

Issue Date: 19/07/2016

Signature valid



உங்கள் குறியிட எண் / Your ID No.

4231 9026 2336
VID : 8117 8740 1760 5176

பாலினம் / Gender: ஆண்கள் / Male

Issue Date: 28/10/2016



முதுகூலி & சி
Muthupandi S R
Issue Date: 28/10/2016
பாலினம் / Gender: ஆண்கள் / Male

Issue Date: 28/10/2016

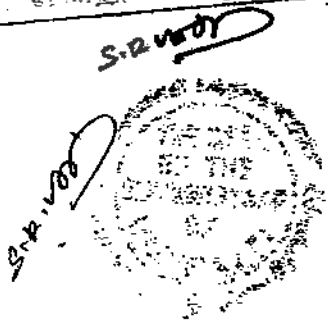
4231 9026 2336
VID : 8117 8740 1760 5176

பாலினம் / Gender: ஆண்கள் / Male

முதலாம் பகுதி 2024 ம் ஆண்டு
21.10.2024 ம் நாள் ஆவணம் 23
தாள்களைக் கொண்டது
9 ம் தாள்

மாண்புமிகு பொதுத் துறை அமைச்சர்

177





இந்திய சர்க்காருக்கு

Government of India

சி.பி.டி. இலக்கம்

Srinani Premchanda

பி.டி.என். இலக்கம்

Farhan Premchandakalasanathan

பி.டி.என். இலக்கம்

8843 5040 0164



8843 5040 0164

சர்க்காரின் மனிதனின் அதிகாரம்

Unique Identification Authority of India

பி.டி.என். இலக்கம்

Srinani Premchanda

பி.டி.என். இலக்கம்

Farhan Premchandakalasanathan

Address: S.O. Premchanda,

484 THIRUPATHUR ROAD

DEVAKOTTAI

DEVAKOTTAI, DEVAKOTTAI

TAMIL NADU, INDIA

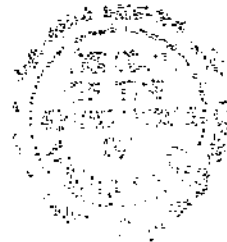
Pin: 626502

8843 5040 0164

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Handwritten signature

.....புத்தகம் 2020 ம் ஆண்டின்
9.1.1.0. ம் நீர் ஆவணம் 23
தாள்களைக் கொண்டது
.....12.....ம் தாள்



சர்க்காரின் மனிதனின் அதிகாரம்

178



இந்திய அரசாங்கம்

Unique Identification Authority of India

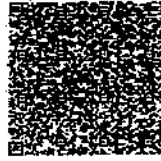
பதிவு அடையாளம் / Enrollment No.: 2007/20693/00718

To
புவனாதேவி ராதாகிருஷ்ணன்
Buvanadevi Radhakrishnan
W/O: Radhakrishnan
2/128/1 MAIN ROAD VADUGAPATTI
THANICHYAM POST THANICHYAM VADIPPATTI
TALUK
Thanichiyam
Thanichiyam
Vadipatti Madurai
Tamil Nadu 625221
9842154084

18/03/2013
28187453



MN281874537FT



தகவல்

- ஆதார் அடையாளத்திற்கான சான்று குடியறிமைக்கு அல்ல .
- அடையாள சான்றை இணையதளம் மூலம் உறுதிப்படுத்திக் கொள்ளவும் .

INFORMATION

- Aadhaar is proof of identity, not of citizenship .
- To establish identity, authenticate online .

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும் .
- வருங்காலத்தில் அரசு மற்றும் அரசு சாரா சேவைகளை பயன்படுத்திக் கொள்ள ஆதார் உதவிகரமாக இருக்கும் .
- Aadhaar is valid throughout the country .
- Aadhaar will be helpful in availing Government and Non-Government services in future .

உங்கள் ஆதார் எண் / Your Aadhaar No. :

9554 0621 3209

ஆதார் - சாதாரண மனிதனின் அதிகாரம்



இந்திய அரசாங்கம்

Government of India

புவனாதேவி ராதாகிருஷ்ணன்
Buvanadevi Radhakrishnan
தந்தை : திருவள்ளூர்
Father : THIRUVALLUR
பிறந்தவருடம் / Year of Birth : 1978
பெண்பால் / Female

9554 0621 3209

ஆதார் - சாதாரண மனிதனின் அதிகாரம்



இந்திய அரசாங்கம்
Unique Identification Authority of India

முகவரி:
W/O: ராதாகிருஷ்ணன், 2/128/1,
மெயின் ரோடு வடுக்கப்பட்டி,
தனிச்சியம் அஞ்சல் தனிச்சியம்,
வாடிப்பட்டி தாலூகா, தனிச்சியம்,
மதுரை, தனிச்சியம், தமிழ் நாடு,
625221

Address:
W/O: Radhakrishnan, 2/128/1,
MAIN ROAD VADUGAPATTI,
THANICHYAM POST
THANICHYAM, VADIPPATTI
TALUK, Thanichiyam, Madurai,
Thanichiyam, Tamil Nadu, 625221

9554 0621 3209

1947
1800 300 1947

help@uidai.gov.in

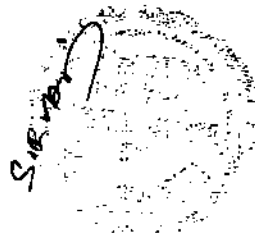
www.uidai.gov.in

R. Buvanadevi

...புத்தகம். 2020 ஆண்டின்
2112 ம் நீர் ஆவணம்... 93...
தாள்களைக் கொண்டது
...12...ம் தாள்

சார்பதிவாளர்

190





இந்திய அரசாங்கம்
Unique Identification Authority of India
Government of India

பதிவு அடையாளம் / Enrollment No.: 2007/20693/00720

To
 முத்துப்பாரதி ராதாகிருஷ்ணன்
 Muthubharathi Radhakrishnan
 S/O Radhakrishnan
 2/128/1 MAIN ROAD VADUGAPATTI
 THANICHYAM POST THANICHYAM VADIPPATTI
 TALLUK
 Thanichiyam
 Thanichiyam
 Vadipatti Madurai
 Tamil Nadu 625221
 9842154084

 MN281969727FT

10/03/2013
 28196972

உங்கள் ஆதார் எண் / Your Aadhaar No. :
8452 6785 0267

ஆதார் - சாதாரண மனிதனின் அதிகாரம்



இந்திய அரசாங்கம்
 Government of India
 முத்துப்பாரதி ராதாகிருஷ்ணன்
 Muthubharathi Radhakrishnan
 தந்தை : ராதாகிருஷ்ணன் முத்துக்கருப்பன்
 Father : RADHAKRISHNAN MUTHUKARUPPAN
 பிறந்த நாள் / Year of Birth : 1989
 ஆண் / Male

8452 6785 0267

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

தேசிய அடையாளம்

- ஆதார் அடையாளத்திற்கான சான்று குடியறிமம் அல்ல
- அடையாள சான்றை இணையதளம் மூலம் உறுதிப்படுத்திக் கொள்ளவும்

குறிப்பு: குழந்தைக்கு 15 வயதாகும்போது பிழைப்புகள் சரிப்படுத்திக் கொள்ள வேண்டும்.

INFORMATION

- Aadhaar is proof of identity, not of citizenship.
- To establish identity, authenticate online.

Note : Children on attaining 15 years of age need to update biometric information.

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும்
- வருங்காலத்தில் அரசு மற்றும் அரசு சாரா சேவைகளை பயன்படுத்திக் கொள்ள ஆதார் உதவிகரமாக இருக்கும்
- Aadhaar is valid throughout the country.
- Aadhaar will be helpful in availing Government and Non-Government services in future.



இந்திய அரசாங்கம்
Unique Identification Authority of India

முதுவர்:
 S/O: ராதாகிருஷ்ணன், 2/128/1, சென்னை ரோடு வடகுடிப்பட்டு, தனிகியம் அஞ்சல் தனிக்கூடம், வடகுடிப்பட்டு தாலுகா, தனிகியம், மதுரை, தனிக்கூடம், தமிழ் நாடு. 625221
 Address:
 S/O: Radhakrishnan, 2/128/1, MAIN ROAD VADUGAPATTI, THANICHYAM POST THANICHYAM, VADIPPATTI TALLUK, Thanichiyam, Madurai, Thanichiyam, Tamil Nadu, 625221

8452 6785 0267

1800 300 1807

help@uidai.gov.in

www.uidai.gov.in

M.R.M3m
 முத்துக்கருப்பன் ஆண்
 2/128/1 மதுரை
 தனிக்கூடம் கொண்டு
 தந்தை
 சாதி
 சாதிப்பதிவாளர்





இந்திய அரசாங்கம்
Unique Identification Authority of India
Government of India

பதிவு அடையாளம் / Enrollment No. : 2007/20693/00719

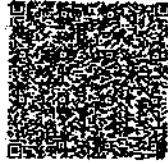
To
Bhamuni Radhakrishnan
பாமுனி ராதாகிருஷ்ணன்
D/O: Radhakrishnan
2/128/1
MAIN ROAD VADUKAPATTI
THANICHIAM POST THANICHIAM
VADIPPATTI TALUK
Thanichiyam
Thanichiyam, Madurai
Tamil Nadu - 625221
9842154084

09/03/2013



KL247939374FT

24793937



உங்கள் ஆதார் எண் / Your Aadhaar No. :

9402 5092 5848

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

தகவல்

- ஆதார் அடையாளத்திற்கான சான்று குடியரிமைக்கு அல்ல.
- அடையாள சான்றை இணையதளம் மூலம் உறுதிப்படுத்திக் கொள்ளவும்.

INFORMATION

- Aadhaar is proof of identity, not of citizenship.
- To establish identity, authenticate online.

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும்.
- வருங்காலத்தில் அரசு மற்றும் அரசு சாரா சேவைகளை பயன்படுத்திக் கொள்ள ஆதார் உதவிகரமாக இருக்கும்.

Aadhaar is valid throughout the country.

Aadhaar will be helpful in availing Government and Non-Government services in future.



இந்திய அரசாங்கம்
Government of India

பாமுனி ராதாகிருஷ்ணன்
Bhamuni Radhakrishnan
தந்தை ராதாகிருஷ்ணன் முத்துசூரப்பன்
Father: RADHAKRISHNAN MUTHUKARUPPAN

பிறந்தவருடைய/Year of Birth: 1996
பாலினம் / Female

9402 5092 5848



ஆதார் - சாதாரண மனிதனின் அதிகாரம்



இந்திய அரசாங்கம்
Unique Identification Authority of India

முகவரி : ப.சு. ராதாகிருஷ்ணன்
2/128/1, மேயின் ரோடு வடுக்கப்பட்டி
தனிச்சியம் அஞ்சல் தனிச்சியம்
வடகூட்டி, தானிய தனிச்சியம்
தனிச்சியம் மதுரை தமிழ் நாடு
625221

Address: D/O:
Radhakrishnan, 2/128/1,
MAIN ROAD VADUKAPATTI,
THANICHIAM POST
THANICHIAM, VADIPPATTI
TALUK, Thanichiyam,
Madurai, Thanichiyam, Tamil
Nadu, 625221

9402 5092 5848

1947
1800 300 1947

help@uidai.gov.in

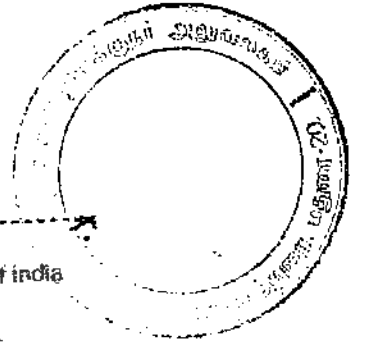
www.uidai.gov.in

M.R. Bhu

.....புத்தகம் 2020 ம ஆண்டின்
21.12.2019 ம் நீர் ஆவணம்...9.3...
தாள்களைக் கொண்டது
...../4.....ம் தாள்

சார்பதிவாளர்

112



Unique Identification Authority of India

முகவரி
தலைநகர் / தலை செயலகம்:
ஆலக்கல் பாதை, 105 கோலக்கல்
கொடிகாடு, கிழக்கு தென்
கொடியக்கவம், மதுரை,
திருநெல்வேலி, தமிழ் நாடு, 625234

Address
S/O: Aalakkal, 1/105,
MELAKKAL MAIN ROAD, EAST
STREET, Kodimangalam,
Madurai, Tiruvodigam, Tamil
Nadu, 625234

5442 8488 2530



help@uidai.gov.in

www.uidai.gov.in

இந்திய அரசாங்கம்
Government of India

விதிக் கு
Vidya A
பிறந்த நாள் / DOB - 25/05/1995
ஆண் / Male

5442 8488 2530

எனது அடையாளம்

எனது

1 புத்தகம் 2020 ஆண்டு
2110 ம் நா ஆவணம் 2110
தாள்களைக் கொண்டது
15 ம் தாள்

என்பது



இந்திய அரசாங்கம்

Government of India

வியாபகர்த்திக் P
Vijayakarthick P
பிறந்த நாள் / DOB 29/07/1982
ஆண்பால் / Male



Unique Identification Authority of India

முகவரி:
தற்கை / தாய் குடியேற்ற
புறமணி, 1/152, மிஷன்
ஸ்ட்ரீட், கோடமங்கலம்,
கோடமங்கலம், மதுரை,
கேரளம் மாநிலம், இந்தியா.
2679 7784 8621

Address:
S/O: Palanisamy, 1/152, MISSION
STREET, NO 1
KODIMANGALAM,
Kodimangalam, Madurai,
Kodimangalam, Tamil Nadu,
325234



2679 7784 8621

எனது அடையாளம்

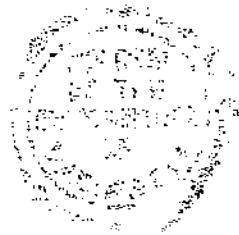
2679 7784 8621

Handwritten signature

Handwritten signature

.....புத்தகம்.....ம ஆண்டின்
2020 மார்ச் 23
தாள்களைக் கொண்டது
.....ம தாள்

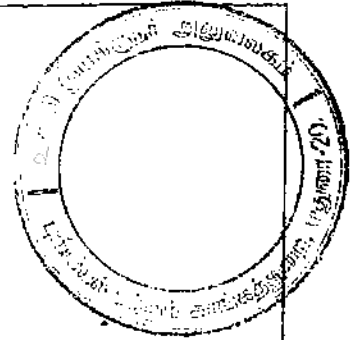
சார்புத் தாளர்



1841



வாரிசு சான்றிதழ்
Legal Heir Certificate



சான்றிதழ் எண் / Certificate No: TN-7202006182428

திகதி / Date: 25-06-2020

சுய எண் 2/128/1, வெட்டிப் பட்டினம் கிராமம், தலிச்சியம் தாலுகா / நகரம், மதுரை மாவட்டம், தமிழ்நாடு அரசுப் பேரரசின் கீழ் உள்ள இவ்வாசனம் தந்தையின் பெயர் முத்துசாமிசாமி என்பவர் 07-06-2020 தேதி அன்று இறந்துள்ளார். மேற்படி இறந்த நபருக்கு கீழ்க்கண்ட நபர்கள் வாரிசுதாரர்களாக உள்ளனர்.

This is to certify that Muthakrishnan son of Muthukaruppan who was residing at Door No. 2/128/1, 2/128/1 Madhukaram Village/Town of Vadipatti Taluk of Madurai, Tamil Nadu State expired on 07-06-2020 leaving behind the following persons as surviving legal heirs.

எண் / SLNo	பெயர் / Name	வயது / Age	இறந்தவர் உட்குறியை / Relationship for deceased	குறைந்த நிலை / Marital Status
1	Shakunadevi	42	Wife	Widow
2	Shakunika	24	Daughter	Unmarried
3	Muthubharathi	21	Son	Unmarried

- 1) இவ்வாசனம் வழங்கல் அடிப்படையில் / ஆதாரமாக வழங்கப்பட்ட அபிவிருத்தி / This certificate is based on the documents / particulars furnished by the applicant.
- 2) வழங்கல் இவ்வாசனம் வழங்கும் அதிகாரம் இது ஒரு தவறான தகவல்களில் அல்லது அபிவிருத்தி செய்த அபிவிருத்தி அல்லது / The Competent Certificate issuing authority is not responsible for any mala fide information submitted by applicant.

Signature valid

Digitally signed by R. KRISHNA KUMAR
Date: 25/06/2020 11:42:05 IST

மாவட்டம் / District : Madurai
தாலுகா / Taluk : Vadipatti

குறிப்பு / Remarks :

அதிகாரம் / Designation : தாலுகா அதிகாரி / Tahsildar

இவ்வாசனம் இலக்கணப்படுத்தப்பட்டுள்ளது மற்றும், அதன்மேல் அச்சம் இல்லாத முத்திரை தேவையில்லை / This certificate is digitally signed and does not require any seal or signature.



சுய விவரம் உட்குறியை
(a) TN-7202006182428 என்ற அடையாளம் குறியீட்டை <https://tncdistrict.tn.gov.in/tneda/VerifyCertificate.aspx> என்ற இணைய இடத்தில் சரிபார்க்கவும்.

(b) மாவட்டம் தலைநகரில் உள்ள தாலுகா அதிகாரிக்கு அனுப்பிவைக்கப்படும் அபிவிருத்தி.

Genuineness of the certificate is certified by:
(a) Keying in the unique certificate number TN-7202006182428 in the URL <https://tncdistrict.tn.gov.in/tneda/VerifyCertificate.aspx>.

(b) Reading the 2D barcode with mobile or scanner and verify through online.

185-9-2020



படிவம் எண் 6
Form No. 6



தமிழ்நாடு அரசு
GOVERNMENT OF TAMIL NADU

வருவாய்த் துறை
DEPARTMENT OF REVENUE ADMINISTRATION

வடுகப்பட்டி கிராம ஊராட்சி
VADUGAPATTI V VILLAGE PANCHAYAT

இறப்பு சான்றிதழ் / DEATH CERTIFICATE

(பிறப்பு மற்றும் இறப்பு பதிவு சட்டம், 1969ன் பிரிவு 12/17 மற்றும் தமிழ்நாடு பிறப்பு இறப்பு பதிவு விதிகள் 2000 விதி எண். 8/13 இன் கீழ் வழங்கப்படுகிறது.)

(ISSUED UNDER SECTION 12/17 OF THE REGISTRATON OF BIRTHS & DEATHS ACT, 1969 AND RULE 8/13 OF THE TAMIL NADU REGISTRATION OF BIRTH AND DEATH RULES 2000.)

கீழ்க்கண்ட தகவல் இந்தியா, தமிழ்நாடு மாநிலம், மதுரை மாவட்டம், வடுகப்பட்டி வட்டம், வடுகப்பட்டி கிராம ஊராட்சி சேர்ந்த அசல் இறப்பு பதிவேட்டிலிருந்து எடுக்கப்பட்டவை என சான்று அளிக்கப்படுகிறது.

THIS IS TO CERTIFY THAT THE FOLLOWING INFORMATION HAS BEEN TAKEN FROM THE ORIGINAL RECORD OF DEATH WHICH IS THE REGISTER FOR VADUGAPATTI V VILLAGE PANCHAYAT OF VADIPATTI TALUK OF MADURAI DISTRICT OF TAMIL NADU STATE, INDIA.

NAME OF DECEASED / இறந்தவரின் பெயர் : RADHAKRISHNAN / ராதாகிருஷ்ணன்
SEX / பாலினம் : MALE / ஆண்
UID NUMBER OF DECEASED / இறந்தவரின் ஆதார் எண் :

DATE OF DEATH / இறந்த தேதி : 07/06/2020
SEVEN - JUNE - TWO-THOUSAND TWENTY
PLACE OF DEATH / இறந்த இடம் : 2/128/1, MAIN ROAD, VADUGAPATTI VILLAGE - 0

AGE OF DECEASED / இறந்தவரின் வயது : 47 YEARS
2/128/1, மெயின் ரோடு, வடுகப்பட்டி கிராமம் - 0

NAME OF MOTHER / தாயின் பெயர் : BHARATHY LATE / பாரதி லேட்.
MOTHER'S UID NUMBER / தாயின் ஆதார் எண் :

FATHER NAME / தந்தையின் பெயர் : MUTHUKARUPPAN / முத்துக்கருப்பன்
FATHER'S UID NO. / தந்தையின் ஆதார் எண் :

HUSBAND / WIFE NAME / கணவர் / மனைவி பெயர் : BHUVANADEVI / புவனாதேவி
HUSBAND / WIFE UID NO. / கணவர் / மனைவி ஆதார் எண் :

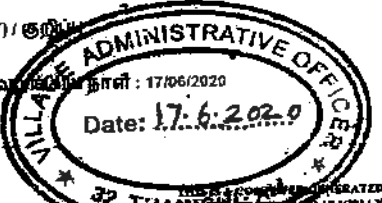
ADDRESS OF THE DECEASED AT THE TIME OF DEATH / இறப்பின் போது இறந்தவரின் முகவரி : 2/128/1, MAIN ROAD, VADUGAPATTI, VADIPATTI, MADURAI, TAMIL NADU - 625221
PERMANENT ADDRESS OF DECEASED / இறந்தவரின் நிரந்தர முகவரி : 2/128/1, MAIN ROAD, VADUGAPATTI, VADIPATTI, MADURAI, TAMIL NADU - 625221

2/128/1, மெயின் ரோடு, வடுகப்பட்டி, வடுகப்பட்டி, மதுரை, தமிழ்நாடு - 625221
2/128/1, மெயின் ரோடு, வடுகப்பட்டி, வடுகப்பட்டி, மதுரை, தமிழ்நாடு - 625221

REGISTRATION NUMBER / பதிவு எண் : D-2020:33-4979-000008
DATE OF REGISTRATION / பதிவு செய்ய தேதி : 09/06/2020

REMARKS (IF ANY) / குறிப்பு :
இறப்பு, இறப்பு பதிவு எண் 17/6/2020

DATE OF ISSUE / வெளியீடு நாள் : 17/06/2020
Date: 17.6.2020



THIS IS A COMPUTER GENERATED CERTIFICATE
GOVERNMENT OF TAMIL NADU (G.O. DT 28/04/2014) BATED 27-05-2015 HAS
APPROVED TO BE USED AS A LEGAL DOCUMENT FOR ALL OFFICIAL PURPOSES.
THE REGISTRATION NUMBER IS UNIQUE TO EACH INDIVIDUAL.

பிறப்பு மற்றும் இறப்பு பதிவு சட்டம், 1969ன் பிரிவு 12/17 மற்றும் தமிழ்நாடு பிறப்பு இறப்பு பதிவு விதிகள் 2000 விதி எண். 8/13 இன் கீழ் வழங்கப்படுகிறது.

DSJ879383291158789/2020
2020.6.17 இறப்பு பதிவு எண் 17/6/2020
தாங்களாகக் கொண்டது
.....18.....ம் நாள்
சார்பதிவாளர்



தமிழக அரசு
வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : மதுரை

வட்டம் : வாடிப்பட்டி

வருவாய் இராமம் : ஜூரி விராணிப்பட்டி

பட்டா எண் : 564

உரிமையாளர்கள் பெயர்

- | | | | |
|-------------------|-------|-------------|---|
| 1. தாசையாகவுண்டர் | மகன் | முருகன் | - |
| 2. ராதாகிருஷ்ணன் | மனைவி | புவனாதேவி | - |
| 3. ராதாகிருஷ்ணன் | மகன் | பாமுனி | - |
| 4. ராதாகிருஷ்ணன் | மகன் | முத்துபாரதி | - |

புல எண்	உட்பிரிவு	புன்செய்		றன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	
33	3	0 - 54.00	1.49	--	--	--	--	2020/0103 /24/139203--- 16-10-2020
33	4	0 - 4.00	0.11	--	--	--	--	2020/0103 /24/139203--- 16-10-2020
34	1A	0 - 23.00	0.64	--	--	--	--	2020/0103 /24/139203--117/1408 -- 16-10-2020
34	3	0 - 78.50	2.17	--	--	--	--	2020/0103 /24/139203--- 16-10-2020
60	3	1 - 56.00	4.32	புத்தகம் 2020 ம ஆண்டின் 21.12.20 ம் நா ஆலணம் 23 தாள்களைக் கொண்டது புத்தகம் தாள் --				2020/0103 /24/139203--- 16-10-2020
62	2	0 - 46.50	1.29					2020/0103 /24/139203--- 16-10-2020
		3 - 62.00	10.02					

சான்பதிவாளர்

குறிப்பு 2 :



- மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 24/14/002/00564/150285 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
- இக் தகவல்கள் 02-11-2020 அன்று 11:45:00 AM நேரத்தில் அச்சடிக்கப்பட்டது.
- கைப்பேசி கேமராவின் 2D barcode டாடிப்பான் மூலம் பயித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்



Government of Tamil Nadu
Registration Department
Acknowledgement

Reference Details

SRO Name: Vadipatti
Application No.: S01LANDVV202011025731044
Transaction No.: REG202011024867980
Transaction Date: 02/11/2020

Application Details

Applicant Name: PALANICHAMY
Service Type: Document Registration (New) in SRO
Stamp Duty (₹): 28188/-
Registration Fee (₹): 21824/-
Computer Fee (₹): 250/-
CD Fees (₹): 100/-

Payment Details

Name of the Bank: Indian Overseas Bank
Bank Ref. No.: 202011020970169
Payment Mode: Online
Amount Paid (₹): 50362/-
Payment Status: Success
Payment Date: 02/11/2020

ஏதேனும் சந்தேகங்கள்/குறைகள் இருப்பின் கீழ்க்கண்ட வழிமுறைகளில் தெரிவிக்கலாம்

கட்டணமில்லா தொலைபேசி எண்

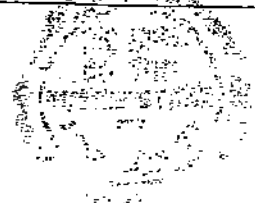
1800 102 5174

மின்னஞ்சல் முகவரி

helpdesk@tcregnet.net

S.P.

புத்தகம் ஆண்டின்
2020-ம் ஆண்டின்
தாளியைக் கொண்டது
2020-ம் தாள்



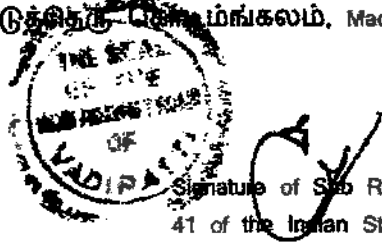
188

செவ்வாள்

CERTIFICATE UNDER SECTION 42 OF THE INDIAN STAMP ACT 1899

S.No 496 of 2020

I hereby certify that a sum of ₹ 28,188/- (Rupees Twenty Eight Thousand One Hundred and Eighty Eight only) on account of deficit stamp duty has been levied under section 41 of the Stamp Act in respect of this instrument from Mr. பழனிச்சாமி residing at 2/3 பஞ்சவர்ணம் வீடு, மதுரை, Tamil Nadu, India, 625234.



Sub Registrar: Vadipatti
Date: 02/11/2020

Signature of Sub Registrar and Collector under Section 41 of the Indian Stamp Act

Presented in the office of the Sub Registrar of Vadipatti and fee of ₹ 24,574/- paid at 02:30 PM on the 02/11/2020 by

Left Thumb



[Handwritten signature]

Additions as per recitals of document

Execution admitted by
Left Thumb



[Handwritten signature]








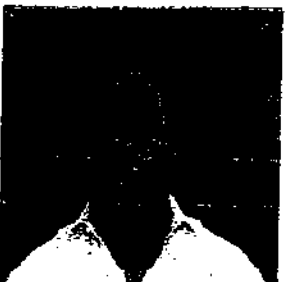
Additions as per recitals of document

Execution admitted by
Left Thumb



புஷ்பா தேவி
[Handwritten signature]

Additions as per recitals of document

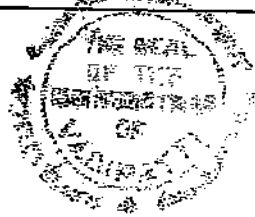
<p>Execution admitted by Left Thumb</p>  	<p>M. R. M. B.</p> <p>Additions as per recitals of document</p>
<p>Execution admitted by Left Thumb</p>  	<p>M. R. B.</p> <p>Additions as per recitals of document</p>
<p>Claim admitted by Left Thumb</p>  	<p>S. Srinivasan</p> <p>Additions as per recitals of document</p>
<p>Claim admitted by Left Thumb</p>  	<p>S. Srinivasan</p> <p>Additions as per recitals of document</p>

.....1...புத்தகம் 220.....ம் ஆண்பன்
241.0...ம் நா ஆவணம்...22.....
தாள்களைக் கொண்டது
.....ஆலி.....ம் தாள்

S. Srinivasan

2/3

சாட்சி வாசளி



190

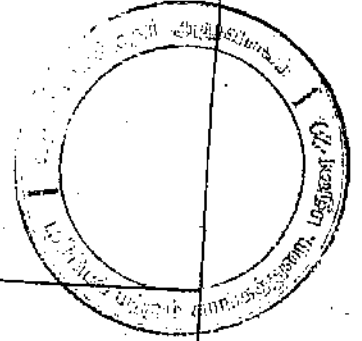
Claim admitted by

Left Thumb



[Handwritten signature]

Additions as per recitals of document



Identified By

[Handwritten signature]

Mr. VIJAYAKARTHIK Son of PALANISAMY 1/152 MIDDLE STREET
KODIMANGALAM, Madurai, Tamil Nadu, India, 625234.

Mr. VIJAY Son of ASAITHAMBI 1/35 MELAKKAL MAIN ROAD, Madurai, Tamil
Nadu, India, 625234.

2nd day of November 2020



[Handwritten signature]

KATHIRESAN N
Sub Registrar
Vadipatti

Registered as Number R/Vadipatti/Book-1/2110/2020.

02/11/2020

Vadipatti

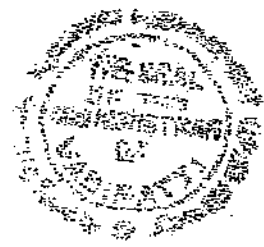


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KATHIRESAN N
Sub Registrar

1 புத்தகம் 2020 ம ஆண்டின்
240 ம நா ஆவணம் 23
தாள்களைக் கொண்டது
23 ம தாள

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3/3



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10/1

அனுப்புநர்
திரு.வழுதகாசனந்தம்,பி.பி.ஏ.,
வருவாய் கோட்டாட்சியர் அலுவலகம்,
மதுரை.

பெறுநர்
மாவட்ட ஆட்சித் தலைவர்,
மதுரை.

ந.க.எண்: 3724 /2021/அ நாள்:10.08.2021

அன்பா,

பொருள்: கனிமங்களும் கரங்கங்களும் - மதுரை மாவட்டம், வாழ்ப்பட்டி வட்டம் நீரேத்தான் உள்வட்டம், விராலிப்பட்டி கிராமம் புல எண்:52/2 மற்றும் சிலவற்றில் மொத்தம் 4.20.00 ஹெக்டேர் பரப்பளவில் உடைகல் வெட்டியெடுக்க 10 வருடங்களுக்கு குத்தகை உரிமம் கோரி விண்ணப்பித்தது - அறிக்கை அனுப்புதல் - தொடர்பாக.

பார்வை: 1.மாவட்ட ஆட்சியர் அலுவலக ந.க. எண்:கனிமம்/1114/2021
நாள் : 26.07.2021
2.நீரேத்தான் வருவாய் ஆய்வாளர் அறிக்கை நாள்:04.08.2021
❀❀❀❀

மதுரை மாவட்டம், வாழ்ப்பட்டி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பட்டி கிராம புன்செய் புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு 0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு புன்செய் பட்டா நிலங்களில் உடைகல் குவாரி செய்ய அனுமதி கோரி மதுரை மாவட்டம், மதுரை மாநகர், கோச்சடை, மேலக்கால் மெயின் ரோடு, கதவு எண்:325 என்ற முகவரியை சேர்ந்த திரு.S.ராஜேந்திரன் மகன் S.R.முத்துப்பாண்டி என்பவர் மனு செய்துள்ளார். மனுவின் மீது 04.08.2021 அன்று இடப்பார்வை செய்யப்பட்டது. இடப்பார்வையின் போது வாழ்ப்பட்டி வட்டாட்சியர், நீரேத்தான் வருவாய் ஆய்வாளர், நீரேத்தான் குறுவட்ட நில ஆளவர் மற்றும் விராலிப்பட்டி கிராம நிர்வாக அலுவலர் ஆகியோர் உடனிருந்தனர். மேற்படி மனு தொடர்பாக எனது அறிக்கையினை கீழ்க்கண்டவாறு பணிநீது சமர்ப்பிக்கிறேன்.

வாழ்ப்பட்டி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பட்டி கிராமக் கணக்கின்படி புல எண்: 34/1A பரப்பு 0.23.00 ஏர்ஸ், 810-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), ராஜேந்திரன் மகன் முத்துப்பாண்டி (2), பிரேமச்சந்தர் மகன் ஸ்ரீராம் (3) என மூன்று நபர்களின் பெயரில் கூட்டுப்பட்டாவாகவும், புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் பட்டா எண்:352-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), பழனிச்சாமி மகன் விஜயகார்த்திக் (2), ராஜேந்திரன் மகன் முத்துப்பாண்டி (3), பிரேமச்சந்தர் மகன் ஸ்ரீராம் (4) என கூட்டுப்பட்டாவாகவும் கிராம கணக்குகளில் தரக்கலாகியுள்ளது. மேற்கண்ட கூட்டுப்பட்டாதாரிகளில் உள்ள நபர்களில் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), பழனிச்சாமி மகன் விஜயகார்த்திக் (2), பிரேமச்சந்தர் மகன் ஸ்ரீராம் (3) ஆகிய மூன்று நபர்களும் ராஜேந்திரன் மகன் முத்துப்பாண்டி என்பவருக்கு 15 வருடங்களுக்கு உடைகல் குவாரி அமைத்துக்கொள்ள சம்மதம் தெரிவித்து ஒப்புத்தம் செய்துள்ளனர்.

மேற்கண்ட புலங்களின் நான்குமால் விபரம் பின்வருமாறு .

புல எண்கள்.34/1A-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:34/1A திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 , 61 ஓடை

புல எண்கள்.34/1B-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/1B திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:60/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 திரு.கருப்பையா புஞ்சை நிலம்

புல எண்கள்.34/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:34/1B திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 , திரு.ஜெயசீலன் புஞ்சை நிலம் புல எண்கள்:35/1,2,3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
மேற்கு	-	புல எண்: 61 ஓடை

புல எண்கள்.52/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:52/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:51/1 ஓடை
கிழக்கு	-	புல எண்:51/1 ஓடை
மேற்கு	-	புல எண்: 60/2, திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்

புல எண்கள்.52/3-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
தெற்கு	-	புல எண்:52/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:51/1 ஓடை
மேற்கு	-	புல எண்: 60/2, திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்

புல எண்கள்.60/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/1A திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:52/1 திரு.கருப்பையா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 திரு.கருப்பையா புஞ்சை நிலம்

விராலைப்பட்டி கிராமத்தில் உடைகல் குவாரி தொடர்பாக 26.07.2021 முதல் 04.08.2021 வரை ஆட்சேபனை நோட்டீஸ் பிரசுரம் செய்யப்பட்டதில் ஆட்சேபனை ஏதும் இது நாள் வரை வரப்பெறவில்லை.

01. மேற்கண்ட புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லை கற்கள் நடப்பட்டுள்ளன.

02. மேற்படி புலங்களில் இருந்து 50 மீட்டர் சுற்றளவிற்குள் கிராம நகரம் அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் ஏதுமில்லை.

03. மேற்படி உடைகல் குவாரி உரிமை வழங்கக்கோரும் நிலத்தின் மீது விண்ணப்பதாரருக்கு உரிமை உள்ளது.

04. மேற்படி புலங்களில் வழக்கு தாவா ஏதும் நிலுவையில் இல்லை.

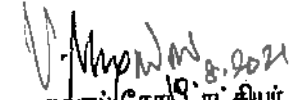
05. மேற்கண்ட புலங்களானது அரசின் நில எடுப்பு பிரேரணையில் இல்லை.


06. மேற்கண்ட புலங்களானது தடையாணை புத்தகத்தில் பதிவு செய்யப்படவில்லை.

07. மேற்படி புலங்களில் வில்லங்கங்கள் மற்றும் வசூல் செய்ய வேண்டிய நிலுவை தொகை ஏதும் இல்லை .

வாடிப்பட்டி வட்டாட்சியரின் பரிந்துரையை ஏற்று உடைகல் குவாரி அமையப்பெறவுள்ள இடத்திற்கு 300 மீட்டருக்கு அப்பால் உள்ள அரசு நிலங்கள், மரங்கள், தனி நபர் நிலங்கள் மற்றும் பொது மக்களுக்கு பாதிப்பு ஏற்படாத வண்ணமும் அரசு விதிகளுக்குட்பட்டும் விராலைப்பட்டி கிராம புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு 0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு புன்செய் பட்டா நிலங்களில் உடைகல் குவாரி அமைக்க வாடிப்பட்டி வட்டாட்சியரிடம் இருந்து வரப்பெற்ற பரிந்துரை அறிக்கையினை ஏற்று மேற்காணும் புன்செய் பட்டா நிலங்களில் உடைகல் குவாரி அமைக்க அனுமதி வழங்க பரிந்துரை செய்கிறேன்.

தங்கள் நம்பிக்கையுள்ள,


வருவாய் கோட்டாட்சியர்,
மதுரை


10-8-2021



இடப்பார்வை குறிப்பு

நாள் : 09.08.2021

மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பட்டி கிராம புன்செய் புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு 0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு புன்செய் பட்டா நிலங்களில் உடைகல் குவாரி செய்ய அனுமதி கோரி மதுரை மாவட்டம், மதுரை மாநகர், கோச்சடை, மேலக்கால் பெயின் ரோடு, கதவு எண்:325 என்ற முகவரியை சேர்ந்த திரு.S.ராஜேந்திரன் மகன் S.R.முத்துப்பாண்டி என்பவர் மனு செய்துள்ளார். மனுவின் மீது 09.08.2021 அன்று இடப்பார்வை செய்யப்பட்டது. இடப்பார்வையின் போது வாடிப்பட்டி வட்டாட்சியர், நீரேத்தான் வருவாய் ஆய்வாளர், நீரேத்தான் குறுவட்ட நில அளவர் மற்றும் விராலிப்பட்டி கிராம நிர்வாக அலுவலர் ஆகியோர் உடனிருந்தனர். மேற்படி மனு தொடர்பாக எனது அறிக்கையினை கீழ்க்கண்டவாறு பணிநீத்து சமர்ப்பிக்கிறேன்.

வாடிப்பட்டி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பட்டி கிராமக் கணக்கின்படி புல எண்: 34/1A பரப்பு 0.23.00 ஏர்ஸ், 810-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), ராஜேந்திரன் மகன் முத்துப்பாண்டி (2), பிரேமசந்தர் மகன் ஸ்ரீராம் (3) என மூன்று நபர்களின் பெயரில் கூட்டுப்பட்டாவாகவும், புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் பட்டா எண்:52-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), பழனிச்சாமி மகன் விஜயகார்த்திக் (2), ராஜேந்திரன் மகன் முத்துப்பாண்டி (3), பிரேமசந்தர் மகன் ஸ்ரீராம் (4) என கூட்டுப்பட்டாவாகவும் கிராம கணக்குகளில் தாக்கலாகியுள்ளது. மேற்கண்ட கூட்டுப்பட்டாதாரிகளில் உள்ள நபர்களில் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), பழனிச்சாமி மகன் விஜயகார்த்திக் (2), பிரேமசந்தர் மகன் ஸ்ரீராம் (3) ஆகிய மூன்று நபர்களும் ராஜேந்திரன் மகன் முத்துப்பாண்டி என்பவருக்கு 15 வருடங்களுக்கு உடைகல் குவாரி அமைத்துக்கொள்ள சம்மதம் தெரிவித்து ஒப்புந்தம் செய்துள்ளனர்.

மேற்கண்ட புலங்களின் நான்குமால் விபரம் பின்வருமாறு .

புல எண்கள்:34/1A-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:34/1A திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 , 61 ஓடை

புல எண்கள்.34/1B-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/1B திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:60/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 திரு.கருப்பையா புஞ்சை நிலம்

புல எண்கள்.34/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:34/1B திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 , திரு.ஜெயசீலன் புஞ்சை நிலம் புல எண்கள்:35/1,2,3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
மேற்கு	-	புல எண்: 61 ஓடை

புல எண்கள்.52/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:52/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:51/1 ஓடை
கிழக்கு	-	புல எண்:51/1 ஓடை
மேற்கு	-	புல எண்: 60/2, திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்

புல எண்கள்.52/3-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
தெற்கு	-	புல எண்:52/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:51/1 ஓடை
மேற்கு	-	புல எண்: 60/2, திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்

புல எண்கள்.60/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/1A திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:52/1 திரு.கருப்பையா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 திரு.கருப்பையா புஞ்சை நிலம்

விராலிப்பட்டி கிராமத்தில் உடைகல் குவாரி தொடர்பாக 26.07.2021 முதல் 04.08.2021 வரை ஆட்சேபணை நோட்டீஸ் பிரசுரம் செய்யப்பட்டதில் ஆட்சேபணை ஏதும் இது நாள் வரை வரப்பெறவில்லை.

S.R. சண்

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01. மேற்கண்ட புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லை கற்கள் நடப்பட்டுள்ளன.

02. மேற்படி புலங்களில் இருந்து 50 மீட்டர் சுற்றளவிற்குள் கிராம நத்தம், அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் ஏதுமில்லை.

03. மேற்படி உடைகல் குவாரி உரிமை வழங்கக்கோரும் நிலத்தின் மீது விண்ணப்பதாரருக்கு உரிமை உள்ளது.

04. மேற்படி புலங்களில் வழக்கு தாவா ஏதும் நிலுவையில் இல்லை.

05. மேற்கண்ட புலங்களானது அரசின் நில எடுப்பு பிரேரணையில் இல்லை.

06. மேற்கண்ட புலங்களானது தடையாணை புத்தகத்தில் பதிவு செய்யப்படவில்லை.

07. மேற்படி புலங்களில் வில்லங்கங்கள் மற்றும் வசூல் செய்ய வேண்டிய நிலுவை தொகை ஏதும் இல்லை .

வாடிப்பட்டி வட்டாட்சியரின் பரிந்துரையை ஏற்று உடைகல் குவாரி அமையப்பெறவுள்ள இடத்திற்கு 300 மீட்டருக்கு அப்பால் உள்ள அரசு நிலங்கள், மரங்கள், தனி நபர் நிலங்கள் மற்றும் பொது மக்களுக்கு பாதிப்பு ஏற்படாத வண்ணமும் அரசு விதிகளுக்குட்பட்டும் விராலிப்பட்டி கிராம புல எண்கள்: 52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு 0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு புன்செய் பட்டா நிலங்களில் உடைகல் குவாரி அமைக்க அனுமதி வழங்க பரிந்துரை செய்கிறேன்.

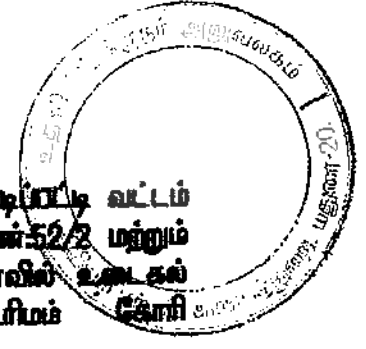
5-1-2017

Revenue Division Officer
Mudalur

அனுப்பநர்
திரு. இரா. நவநீதகிருஷ்ணன். எம். ஏ.,
வட்டாட்சியர்,
வாழ்ப்பாடி.

பெறுநர்
வருவாய் கோட்டாட்சியர்
மதுரை.

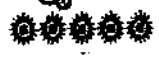
ந.க. எண். ஆ/4/3047/2021, நாள் : 08.2021.



தய்ப்பா,

பொருள் : கனிமங்களும் கரங்கங்களும் - மதுரை மாவட்டம், வாழ்ப்பாடி வட்டம்
நீரேத்தான் உள்வட்டம், விராலிப்பாடி கிராமம் புல எண்:52/2 மற்றும்
சிலவற்றில் மொத்தம் 4.20.00 ஹெக்டேர் பரப்பளவில் உடைகல்
வெட்டியெடுக்க 10 வருடங்களுக்கு குத்தகை உரிமம் கோரி
விண்ணப்பித்தது - அறிக்கை அனுப்பதல் - தொடர்பாக.

பார்வை : 1. மாவட்ட ஆட்சியர் அலுவலக ந.க. எண். கனிமம்/1114/2021
நாள் : 26.07.2021
2. நீரேத்தான் வருவாய் ஆய்வாளர் அறிக்கை நாள்:04.08.2021



மதுரை மாவட்டம், வாழ்ப்பாடி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பாடி கிராம
புள்செய் புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு
0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு
1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு
புள்செய் மட்டா நிலங்களில் உடைகல் குவாரி செய்ய அனுமதி கோரி மதுரை மாவட்டம்,
மதுரை மாநகர், கோச்சடை, மேலக்கால் பெயின் ரோடு, கதவு எண்:325 என்ற முகவரியை
சேர்ந்த திரு. S.ராஜேந்திரன் மகன் S.R.முத்துப்பாண்டி என்பவர் மனு செய்துள்ளார்.
மனுவின் மீது 26.07.2021 அன்று இடப்பார்வை செய்யப்பட்டது. இடப்பார்வையின் போது
நீரேத்தான் வருவாய் ஆய்வாளர், நீரேத்தான் குறுவட்ட நில அளவன் மற்றும் விராலிப்பாடி
கிராம நிர்வாக அலுவலர் ஆகியோர் உடனிருந்தனர். மேற்படி மனு தொடர்பாக எனது
அறிக்கையினை கீழ்க்கண்டவாறு பணிந்து சமர்ப்பிக்கிறேன்.

வாழ்ப்பாடி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பாடி கிராமக் கணக்கின்படி புல
எண்: 34/1A பரப்பு 0.23.00 ஏர்ஸ், 810-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1),
ராஜேந்திரன் மகன் முத்துப்பாண்டி (2), பிரேம்சந்தர் மகன் ஸ்ரீராம் (3) என மூன்று நபர்களின்
பெயரில் கூட்டுப்பட்டாவாகவும், புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00
ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00
ஹெக்டேர் மட்டா எண்:852-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), பழனிச்சாமி
மகன் விஜயகார்த்திக் (2), ராஜேந்திரன் மகன் முத்துப்பாண்டி (3), பிரேம்சந்தர் மகன் ஸ்ரீராம்
(4) என கூட்டுப்பட்டாவாகவும் கிராம கணக்குகளில் தாக்கவாகியுள்ளது. மேற்கண்ட
கூட்டுப்பட்டாதாரிகளில் உள்ள நபர்களில் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1),
பழனிச்சாமி மகன் விஜயகார்த்திக் (2), பிரேம்சந்தர் மகன் ஸ்ரீராம் (3) ஆகிய மூன்று
நபர்களும் ராஜேந்திரன் மகன் முத்துப்பாண்டி என்பவருக்கு 15 வருடங்களுக்கு உடைகல்
குவாரி அனுமதிக்கொள்ள சம்மதம் தெரிவித்து ஒப்பந்தம் செய்துள்ளனர்.

தொடர்ச்சி-2
9/8/2021

மேற்கண்ட புலங்களின் நான்குமால் விபரம் பின்வருமாறு .

புல எண்கள்.34/1A-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:34/1A திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 , 61 ஓடை

புல எண்கள்.34/1B-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/1B திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:60/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 திரு.கருப்பையா புஞ்சை நிலம்

புல எண்கள்.34/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:34/1B திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 , திரு.ஜெயசீலன் புஞ்சை நிலம் புல எண்கள்:35/1,2,3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
மேற்கு	-	புல எண்: 61 ஓடை

புல எண்கள்.52/2-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:52/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:51/1 ஓடை
கிழக்கு	-	புல எண்:51/1 ஓடை
மேற்கு	-	புல எண்: 60/2, திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்

புல எண்கள்.52/3-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
தெற்கு	-	புல எண்:52/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:51/1 ஓடை
மேற்கு	-	புல எண்: 60/2, திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்

S.புலவர்
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புல எண்கள்:60/2-இன் தான்குயால் விபரம் பின்வருமாறு

மீட்டருக்கு	-	புல எண்:34/1A திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கழிக்கு	-	புல எண்:52/1 திரு.கருப்பையா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/3 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 திரு.கருப்பையா புஞ்சை நிலம்

விராவிப்பட்டி கிராமத்தில் உடைகல் குவாரி தொடர்பாக 26.07.2021 முதல் 04.08.2021 வரை ஆட்சேபணை நோட்டீஸ் பிரகடனம் செய்யப்பட்டதில் ஆட்சேபணை ஏதும் இது நாள் வரை வரப்பெறவில்லை.

01. மேற்கண்ட புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லை கற்கள் நடப்பட்டுள்ளன.
02. மேற்படி புலங்களில் இருந்து 50 மீட்டர் சுற்றளவிற்குள் கிராம நத்தம், அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் ஏதுமில்லை.
03. மேற்படி உடைகல் குவாரி உரிமம் வழங்கக்கோரும் நிலத்தின் மீது விண்ணப்பதாரருக்கு உரிமை உள்ளது.
04. மேற்படி புலங்களில் வழக்கு தவிர ஏதும் நிலுவையில் இல்லை.
05. மேற்கண்ட புலங்களானது அரசின் நில எடுப்பு பிரேரணையில் இல்லை.
06. மேற்கண்ட புலங்களானது தடையாணை புத்தகத்தில் பதிவு செய்யப்படவில்லை.
07. மேற்படி புலங்களில் வில்லங்கங்கள் மற்றும் வசூல் செய்ய வேண்டிய நிலுவை தொகை ஏதும் இல்லை.

நிரேத்தான் வருவாய் ஆய்வாளர் மற்றும் விராவிப்பட்டி கிராம நிர்வாக அலுவலர் ஆகியோர் மேற்படி புலத்தில் உடைகல் குவாரி செய்ய அனுமதி வழங்க பரிந்துரை செய்துள்ளனர்.

நிரேத்தான் வருவாய் ஆய்வாளர், விராவிப்பட்டி கிராம நிர்வாக அலுவலர் பரிந்துரையை ஏற்றும், உடைகல் குவாரி அமையப்பெறவுள்ள இடத்திற்கு 300 மீட்டருக்கு அப்பால் உள்ள அரசு நிலங்கள், மரங்கள், தனி நபர் நிலங்கள் மற்றும் பொது மக்களுக்கு பாதிப்பு ஏற்படாத வண்ணமும் அரசு விதிகளுக்குட்பட்டும் விராவிப்பட்டி கிராம புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு 0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு முன்செய் பட்டா நிலங்களில் உடைகல் குவாரி அமைக்க அனுமதி வழங்க பரிந்துரை செய்கிறேன்.

தொடர்ச்சி -4

இத்துடன் மேற்கண்ட புலங்களில் கிராம கணக்குகளான "அ" பதிவேடு, புலப்பட்டம், ஒப்பந்த பத்திரங்கள், "அ1" நோட்டீஸ், இடப்பார்வை குறிப்பு, நிரேத்தான் வட்டாட்சியர் ஆய்வாளர் மற்றும் விராலிப்பட்டி கிராம நிர்வாக அலுவலர் அறிக்கைகளை இணைத்துள்ளேன் என்பதையும் பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

தங்கள் நம்பிக்கையுள்ள

இணைப்பு : மேற்கண்டவாறு

நகல் : மாவட்ட ஆட்சித்தலைவர், மதுரை
அவர்களுக்கு பணிந்து சமர்ப்பிக்கப்படுகிறது.

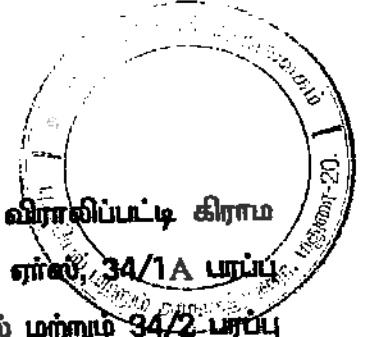
க. ரமணி
வட்டாட்சியர்
வாடிப்பட்டி.
02/08/2021
6/8/2021

SRV

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இடப்பார்வை குறிப்பு

நாள் : 26.07.2021



மதுரை மாவட்டம், வாடிப்பட்டி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பட்டி கிராம புன்செய் புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு 0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு புன்செய் பட்டா நிலங்களில் உடைகல் குவாரி செய்ய அனுமதி கோரி மதுரை மாவட்டம், மதுரை மாநகர், கோச்சடை, மேலக்கால் மெயின் ரோடு, கதவு எண்:325 என்ற முகவரியை சேர்ந்த திரு.S.ராஜேந்திரன் மகன் S.R.முத்துப்பாண்டி என்பவர் மனு செய்துள்ளார். மனுவின் மீது 26.07.2021 அன்று இடப்பார்வை செய்யப்பட்டது. இடப்பார்வையின் போது நீரேத்தான் வருவாய் ஆய்வாளர், நீரேத்தான் குறுவட்ட நில அளவர் மற்றும் விராலிப்பட்டி கிராம நிர்வாக அலுவலர் ஆகியோர் உடனிருந்தனர். மேற்படி மனு தொடர்பாக எனது அறிக்கையினை கீழ்க்கண்டவாறு பணிந்து சமர்ப்பிக்கிறேன்.

வாடிப்பட்டி வட்டம், நீரேத்தான் உள்வட்டம், விராலிப்பட்டி கிராமக் கணக்கின்படி புல எண்: 34/1A பரப்பு 0.23.00 ஏர்ஸ், 810-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), ராஜேந்திரன் மகன் முத்துப்பாண்டி (2), பிரேம்சந்தர் மகன் ஸ்ரீராம் (3) என மூன்று நபர்களின் பெயரில் கூட்டுப்பட்டாவாகவும், புல எண்கள்:52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் பட்டா எண்:852-ல் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), பழனிச்சாமி மகன் விஜயகார்த்திக் (2), ராஜேந்திரன் மகன் முத்துப்பாண்டி (3), பிரேம்சந்தர் மகன் ஸ்ரீராம் (4) என கூட்டுப்பட்டாவாகவும் கிராம கணக்குகளில் தூக்கலாகியுள்ளது. மேற்கண்ட கூட்டுப்பட்டாதாரிகளில் உள்ள நபர்களில் பழனியாண்டி அம்பலம் மகன் பழனிச்சாமி (1), பழனிச்சாமி மகன் விஜயகார்த்திக் (2), பிரேம்சந்தர் மகன் ஸ்ரீராம் (3) ஆகிய மூன்று நபர்களும் ராஜேந்திரன் மகன் முத்துப்பாண்டி என்பவருக்கு 15 வருடங்களுக்கு உடைகல் குவாரி அமைத்துக்கொள்ள சம்மதம் தெரிவித்து ஒப்பந்தம் செய்துள்ளனர்.

மேற்கண்ட புலங்களின் நான்குமால் விபரம் பின்வருமாறு .

புல எண்கள்.34/1A-இன் நான்குமால் விபரம் பின்வருமாறு

வடக்கு	-	புல எண்:34/2 திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
தெற்கு	-	புல எண்:34/1A திரு.பழனிச்சாமி வகையரா புஞ்சை நிலம்
கிழக்கு	-	புல எண்:52/4 திரு.ஜெயசீலன் புஞ்சை நிலம்
மேற்கு	-	புல எண்: 60/1 , 61 ஓடை

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S.ராஜேந்திரன்

01. மேற்கண்ட புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லை கற்கள் நடப்பட்டுள்ளன.

02. மேற்படி புலங்களில் இருந்து 50 மீட்டர் சுற்றளவிற்குள் கிராம நத்தம், அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் ஏதுமில்லை.

03. மேற்படி உடைகல் குவாரி உரிமம் வழங்கக்கோரும் நிலத்தின் மீது விண்ணப்பதாரருக்கு உரிமை உள்ளது.

04. மேற்படி புலங்களில் வழக்கு தாவா ஏதும் நிலுவையில் இல்லை.

05. மேற்கண்ட புலங்களானது அரசின் நில எடுப்பு பிரேரணையில் இல்லை.

06. மேற்கண்ட புலங்களானது தடையாணை புத்தகத்தில் பதிவு செய்யப்படவில்லை.

07. மேற்படி புலங்களில் வில்லங்கங்கள் மற்றும் வசூல் செய்ய வேண்டிய நிலுவை தொகை ஏதும் இல்லை .

நீரேத்தான் வருவாய் ஆய்வாளர், விராலிப்பட்டி கிராம நிர்வாக அலுவலர் பரிந்துரையை ஏற்றும், உடைகல் குவாரி அமையப்பெறவுள்ள இடத்திற்கு 300 மீட்டருக்கு அப்பால் உள்ள அரசு நிலங்கள், மரங்கள், தனி நபர் நிலங்கள் மற்றும் பொது மக்களுக்கு பாதிப்பு ஏற்படாத வண்ணமும் அரசு விதிகளுக்குட்பட்டும் விராலிப்பட்டி கிராம புல எண்கள்: 52/2 பரப்பு 0.37.00 ஏர்ஸ், 52/3 பரப்பு 0.41.00 ஏர்ஸ், 34/1A பரப்பு 0.23.00 ஏர்ஸ், 34/1B பரப்பு 0.91.00 ஏர்ஸ், 60/2 பரப்பு 0.50.00 ஏர்ஸ் மற்றும் 34/2 பரப்பு 1.78.00 ஹெக்டேர் ஆக மொத்தம் 4.20.00 ஹெக்டேர் பரப்பில் 10 வருடங்களுக்கு புன்செய் பட்டா நிலங்களில் உடைகல் குவாரி அமைக்க அனுமதி வழங்க பரிந்துரை செய்கிறேன்.


வட்டாட்சியர்,
வாடிப்பட்டி

S. S. S.

- 7. பெங்களூர் டிவிஷனில் உள்ள பஞ்சாயத்து அமைப்புகள் பற்றிய விவரம் கீழ்க்கண்டது.
- 8. பெங்களூர் டிவிஷனில் உள்ள பஞ்சாயத்து அமைப்புகள் பற்றிய விவரம் கீழ்க்கண்டது.

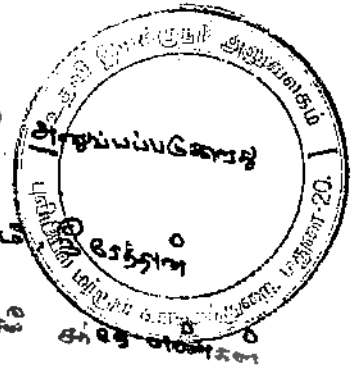
மேல்கண்ட விவரம் கீழ்க்கண்ட பஞ்சாயத்து அமைப்புகள் பற்றிய விவரம் கீழ்க்கண்டது.

04.08.2024
REVENUE INSPECTOR
NEERETHAN FIRKA
 Vadipatti Taluk
 Madurai District

Handwritten signature

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அறியப்படாத வட்டங்களில் அமைக்கப் பட்டிருக்கிற



படிவம் காணப்படும், அறியப்படாத வட்டங்களில்

1. காவல்பட்டி, 2. அறியப்படாத கிராமம் மற்றும் அதன் கிராமபஞ்சாயத்து
52/2 பரப்பு 0.37.0 ஏக்கர், 52/3 பரப்பு 0.41.0 ஏக்கர், 34/1A பரப்பு
0.23.0 ஏக்கர், 34/1B பரப்பு 0.91.0 ஏக்கர், 60/2 பரப்பு 0.50.0 ஏக்கர்
34/2 பரப்பு 1.78.0 ஏக்கர் ஆகியவை 4.20.00 ரூபாய்க்கீழ் பரப்பில்
10 வட்டங்களில் உள்ள இவை அனைத்தும் 2-ம் பட்டி போன்ற

மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்
மாதிரியில் போன்ற வட்டங்களில் உள்ள அனைத்து இடங்களிலும்

— தலைவரவர்களின் தீர்மானத்தின்படி 2-ம் பட்டி, தேர்தலின் முடிவானது அமைப்பதில்
தாமதமாகி (30/11/2024 தேர்தல் பரப்பு 4.60.00) தேர்தலின்
முடிவானது மன்றமேற்படுத்தப்பட்டு 606 மன்றமேற்படுத்தப்பட்டு 2-ம் பட்டி,
தேர்தல் முடிவானது 2-ம் பட்டி, தேர்தல் முடிவானது.

1, மன்றமேற்படுத்தப்பட்டு அனைத்து இடங்களிலும்
மன்றமேற்படுத்தப்பட்டு அனைத்து இடங்களிலும்

2, அறியப்படாத கிராமங்களில் போன்ற இடங்களில்
அறியப்படாத கிராமங்களில் போன்ற இடங்களில்
அறியப்படாத கிராமங்களில் போன்ற இடங்களில்
அறியப்படாத கிராமங்களில் போன்ற இடங்களில்

3, இடங்களில் அனைத்து இடங்களிலும் அனைத்து இடங்களிலும்

(Handwritten signature)

50 புகள் சந்தர்ப்பங்கள் காலம் 3336, அங்கீகரிக்கப்பட்ட
 இயந்திர மனதின் மூலம் கட்டுமானங்கள் ஏதும் கிடையாது

- 4, கிணர் இத்தனை உரிமை அடிப்படையில் கேட்கும் முறைகள்
 மீது அங்கீகரிக்கப்பட்டதற்கும் உரிமை உள்ளது.
- 5, அங்கீகரிக்கப்பட்ட முறைகள் அடிப்படையில் ஏதும் கிடையாது
- 6, அங்கீகரிக்கப்படாத முறைகள் மீது அங்கீகரிக்கப்பட்ட
 முறைகள் ஏதும் கிடையாது.
- 7, அங்கீகரிக்கப்பட்ட முறைகளில் அங்கீகரிக்கப்படாத முறைகள்
 மீது அங்கீகரிக்கப்பட்ட முறைகள் மீது அங்கீகரிக்கப்பட்ட முறைகள்
 ஏதும் கிடையாது.

மேற்கண்ட சந்தர்ப்பங்கள் உடனடியாக மீளும்

அங்கீகரிக்கப்படாத முறைகள் மீது அங்கீகரிக்கப்பட்ட முறைகள் மீது அங்கீகரிக்கப்பட்ட முறைகள்

முன்புள்ள முறைகள் மீது அங்கீகரிக்கப்பட்ட முறைகள் மீது அங்கீகரிக்கப்பட்ட முறைகள்

மேற்கண்ட முறைகள் மீது அங்கீகரிக்கப்பட்ட முறைகள் மீது அங்கீகரிக்கப்பட்ட முறைகள்

S. Suresh Kumar
சுற்றுச்சூழல் அமைச்சர்
சென்னை

S. Suresh Kumar



6.3.2023
S.M. Veeramani

DEED OF AGREEMENT TO CONDUCT BLASTING

OPERATION

This deed of Agreement entered at Dindigul on this 6th day of Mar 2023 between, Thiru.S.R.Muthupandi, S/o.S.Rajendran, D.No.325, Melakkal Main Road, Kochadai, Madurai District herein after referred to as party of the First part.

and

Mr.S.M.Veeramani having their office at 3, Kannara Street, Dindigul herein after referred to as party of the Second Part.

The Party of the First part operating Mines and Major Minerals in SF.No.52/2,52/3,34/1A,34/1B,60/2 & 34/2 totally over an extent of 4.20.0 Hects in Viralippatty village, Vadipatti Taluk, Madurai District as per Stone Quarry lease permit granted by the Collector of Madurai District vide his order RC.No.1114/Mines/2021 Dated 03.03.2023.

1.

S.R. Muthupandi

2.

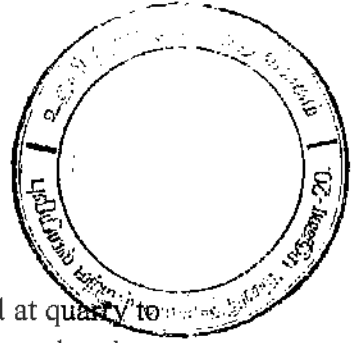
S.M. Veeramani

S.M. VEERAMANI,
Arms Ammunitions & Explosive Dealer
5, Kannara Street,
DINDIGUL - 624 001

cell: 9842133589

S.R. Muthupandi

210



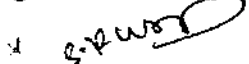
Whereas the party of First part wants blasting work to be conducted at quarry to excavate the random, rubble, jelly. The Blasting work is so intensive and large that the party of the First part has decided to entrust the work involved to the party of the Second part of contract basis as per mutually accepted terms and conditions.

Whereas the party of the First Part will allot blasting operations in the above said areas to the party of the second part who is responsible for blasting rocks and also making his own arrangements for the explosives and exploding machineries/equipments required for the work. The entire blasting in the above quarry and the possession of the blasting equipments will be handed by the part of the Second part having valid licenses and Shot Firer Permits granted by the Department of Explosives under the Explosives Rules, 1983 and hereby undertake the responsibility for the work entrusted.

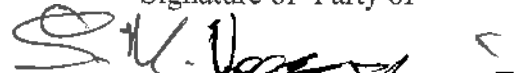
Whereas payments will be made periodically by the party of the First part for the Quantity of explosives used and hours and hours and time of the exploding equipments put into use. Calculations will be made and settlement will be arrived at every month. The rates for the items of work will as mutually agreed as marginal cost which includes cost of explosives, transporations cost and other charges for blasting work. The agreements is made for all blasting done into the said areas.

Whereas the agreement is valid from the date of execution till validity of quarry Lease permit granted by the Collector to the party of the First part or terminable Earlier ny mutual consent with a month notice.

Signature of Party of

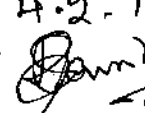

First Part

Signature of Party of

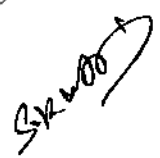

Second Part

S.M. VEERAMANI,
Arms Ammunitions & Explosive Dealer
5, Kannara Street,
DINDIGUL - 624 001

Witness:

1. N. Sivalbumar.
S/O T.K. Nagarajan.
4-2-14 R.S Road Vadamadurai.
cell .9677623147.
2.  B. Ram Hari. (CR. SAMBAJI)
22, Sundram chetty Lane.
Dindigul, 624001.
9443773589

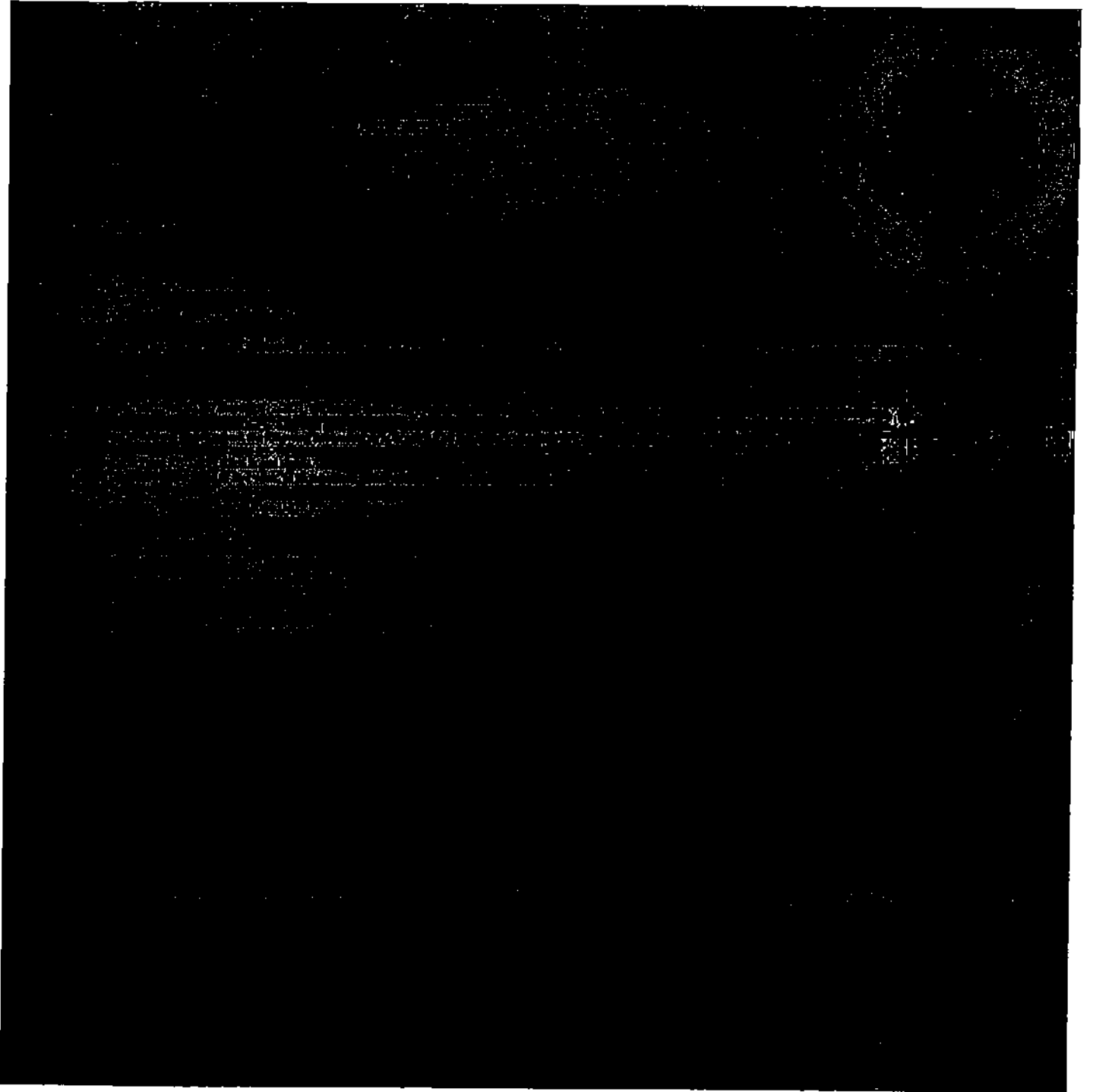
211



Small Note

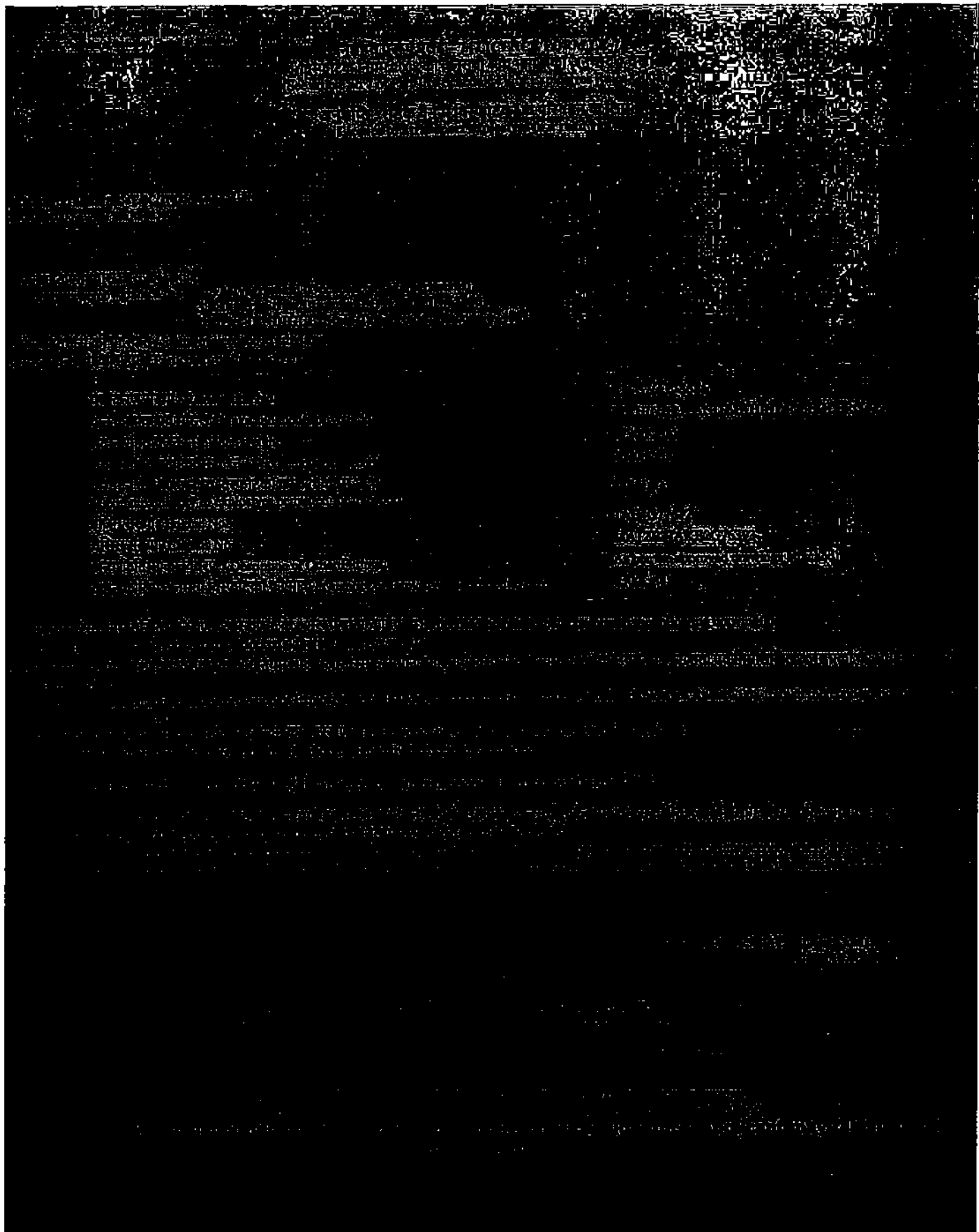
TWO ROOMS - SMALL MAGAZINE

Handwritten signature or initials



213

S. R. WOOD



214

Saverio



INDIA
 MINISTRY OF COMMERCE & INDUSTRY
 PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION (PESO)
 (Formerly Department of Explosives)
 A & D Wing, Block I-B, 2nd Floor, Shastri Bhavan
 26 Hadfield Road, Nungambakam Chennai 600006
 Tele: 28281023 Fax: 28284848
 Email: jtecechemai@explosives.gov.in

No.ESC/TN/23/1119(E95682)

Dated: 29.12.2021

To,
 S.V. VEERAMANI,
 A/A, Kannara St, Dindigul,
 Tirunelveli - DINDIGUL
 Dist DINDIGUL, State Tamil Nadu, Pincode-624001

Subject: Road Van for the carriage of Explosives Registration No TN57DB9991, Licence No. E56 57N/56612(E95682) & 57169 in Form LE-7 of Explosives Rules 2008 - Renewal regarding

Sir,

Reference is made to your letter dated 29.12.2021 for the renewal of the license for the carriage of explosives in the road van for the purpose mentioned.

For further details, please refer to the following instructions in the attached Form, which are applicable for the license renewal of the road van before 31/03/2022:

- Application Form Form RE-1 duly filled in and signed.
- License fee, renewable for one to five years, to be submitted online through e-payment facility available on online application portal under the Explosives Rules, 2008.
- Original license to be approved plan.
- In the collection, please refer to Rule 161 of Explosives Rules, 2008.

Please follow following instructions strictly:

1. The records of explosives transported by the licensed Roadvan shall be maintained in the proforma RE-6 under Part 5 of schedule V of Explosives Rules 2008.
2. Please ensure that persons whose antecedents verified by the local Police shall only be employed with the licensed explosive roadvan/corpses mounted truck as drivers or cleaners. List of such drivers and cleaners's alongwith the personal particulars shall be made available to the local police in advance. The re-verification of such staff shall also be made at least once in a year in compliance to Rule 61(c) of Explosives Rules 2008.
3. Please note that during transportation of explosives, the Roadvan shall always be attended to by two armed guards. If the consignment of explosives is likely to pass through sensitive areas notified by Ministry of Home Affairs, it should be escorted by armed Police escort / guard provided by District Police Administration as required in Rule 61(7) of Explosives Rules 2008.

Yours faithfully,

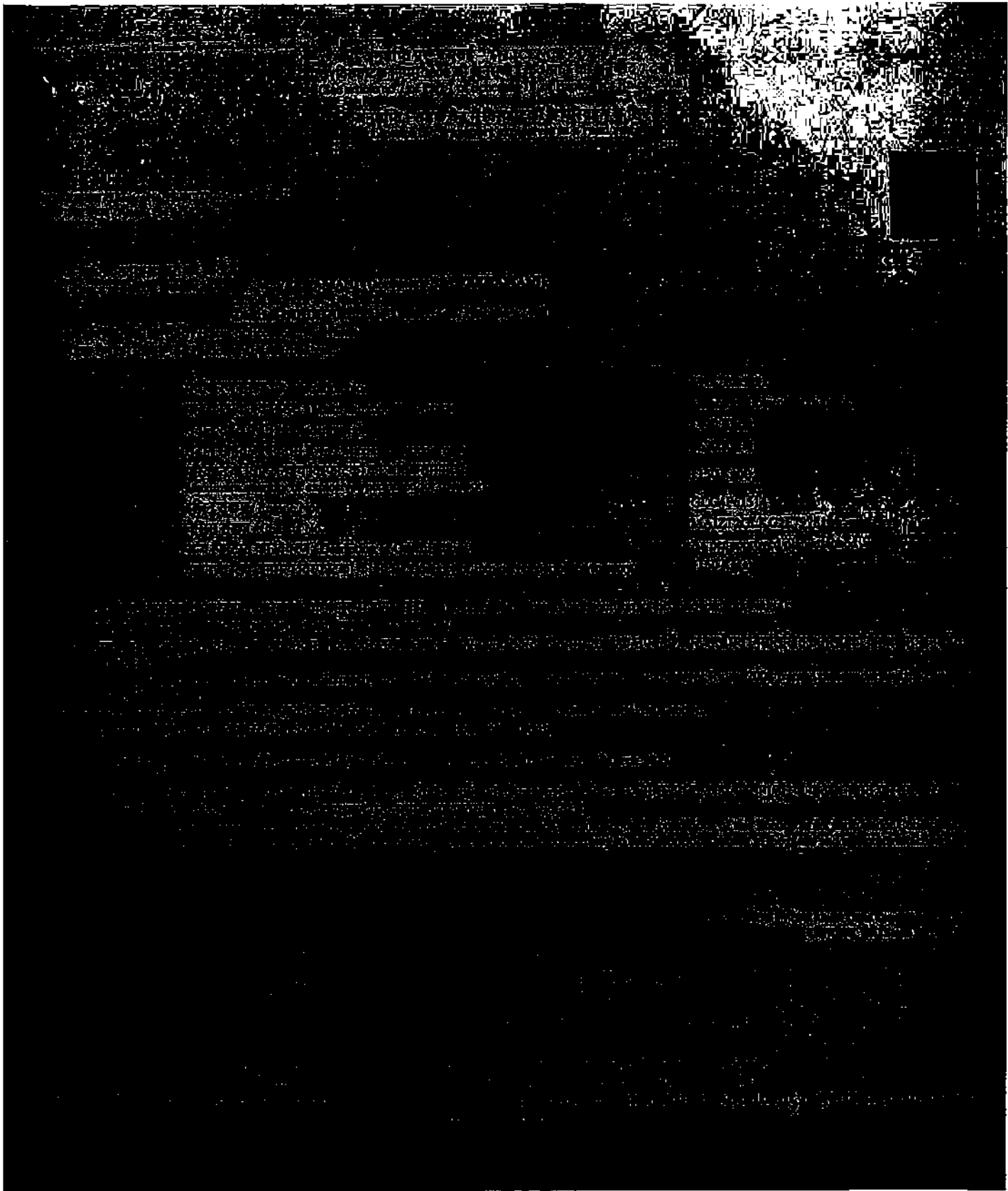
(Dr. A SHEIKH HUSAIN)
 Controller of Explosives
 For Joint Controller of Explosives
 South Circle, Chennai

For Joint

Mail user: tn@explosives.gov.in

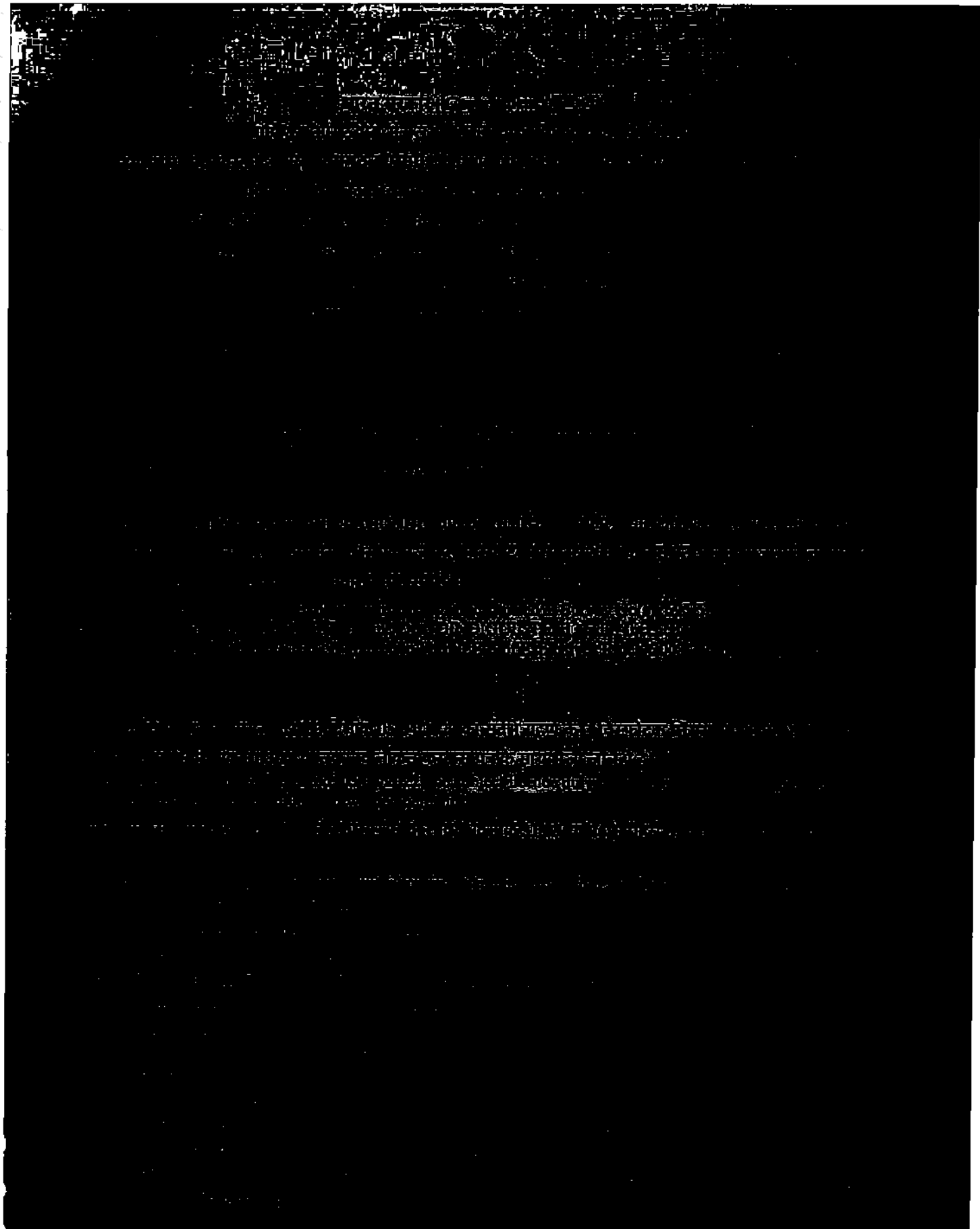
does not require physical signature. Applicant may take records.

215

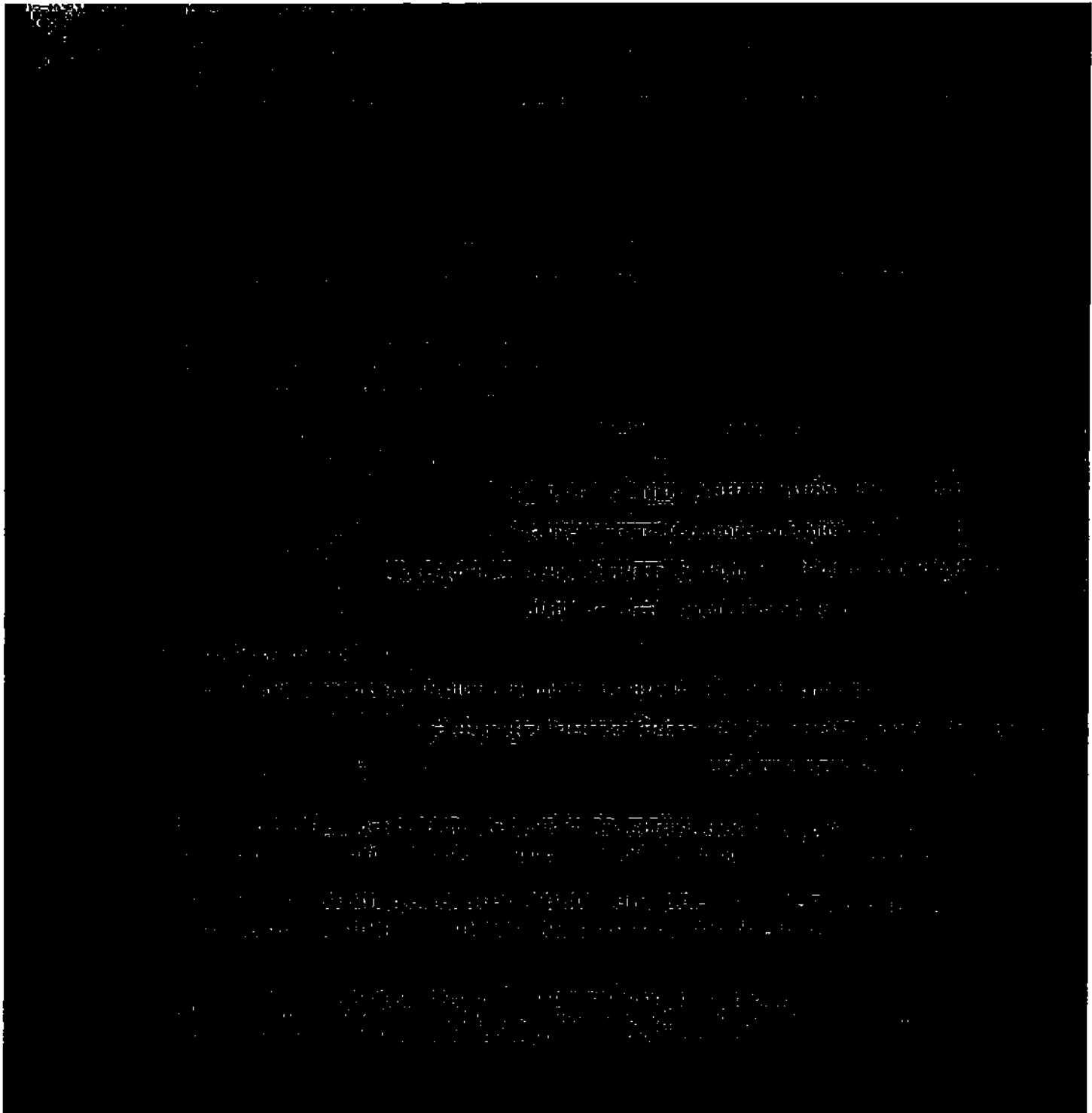


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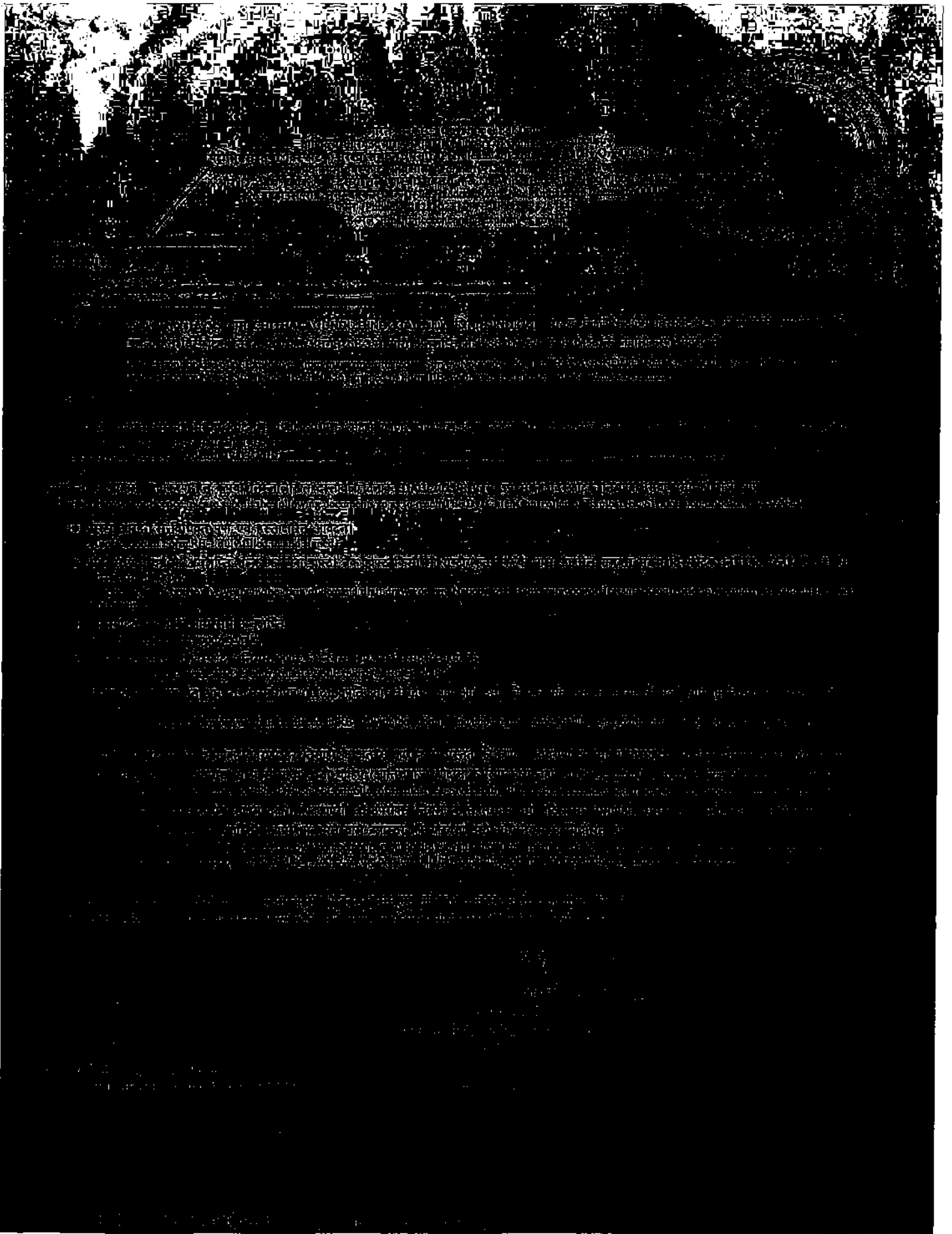
216



Sawyer



SECRET



S. 12/10/1977

अनुमति प्रपत्र एन. डी. 3 (A) (REVISED FORM) LE-3

(विस्तारित नियम 2012 की अनुसूची 3 में अंग 2 के अनुच्छेद 2(क) के अंतर्गत)

(This article is in Hindi in Part II of the Schedule 3 of the Rules, 2012)

यह अनुमति प्रपत्र एन. डी. 3 (A) (REVISED FORM) LE-3 के अंतर्गत जारी किया गया है।

This license is issued under the provisions of the Rules, 2012.



अनुमति प्रपत्र संख्या: [Redacted]

Occupier: S. M. VEERASAMI, [Redacted]
Village: DINDIGUL, District: DINDIGUL, State: KERALA

अनुमति प्रपत्र प्राप्त करने की तारीख: [Redacted]

आवक (स्थिति): Status of licensee: Individual

अनुमति प्रपत्र प्राप्त करने के निम्न निम्नलिखित उद्देश्यों के लिए जारी किया गया है।

This license is issued for the following purposes:

अनुमति प्रपत्र प्राप्त करने के निम्नलिखित शर्तों पर जारी किया गया है।

This license is issued on the following conditions:

अनुमति प्रपत्र प्राप्त करने के निम्नलिखित शर्तों पर जारी किया गया है।

This license is issued on the following conditions:

अनुमति प्रपत्र प्राप्त करने के निम्नलिखित शर्तों पर जारी किया गया है।

This license is issued on the following conditions:

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This license is issued on the following conditions:

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This license is issued on the following conditions:

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This license is issued on the following conditions:

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अनुमति प्रपत्र प्राप्त करने के निम्नलिखित शर्तों पर जारी किया गया है।

This license is issued on the following conditions:

अनुमति प्रपत्र प्राप्त करने के निम्नलिखित शर्तों पर जारी किया गया है।

This license is issued on the following conditions:

संयुक्त मुख्य विस्फोटक विभाग

Amendment of Quantity of Explosives under Purchase Limit dated: 20/01/2012
Amendment of Quantity of Explosives under Purchase Limit dated: 20/01/2012

के प्रस्तावक के लिए स्थान
Endorsement of Renewal

पाठिकारी के हस्ताक्षर और स्थान
of licensing authority and stamp

South Circle, Chennai

SR
220

1. copies of only...
2. copies of only...
3. copies of only...
4. copies of only...
5. copies of only...
6. copies of only...
7. copies of only...
8. copies of only...
9. copies of only...
10. copies of only...

For Joint Chief Controller of Explosives
South Circle, Chennai

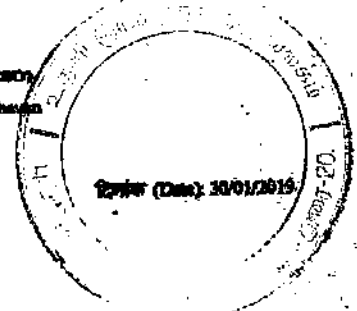
For Joint Chief Controller of Explosives
South Circle, Chennai

For more information regarding status, fees and other details please visit our website <http://peso.gov.in>

Note:- a recipient may take printout of their records.



भारत सरकार | Government of India
 उद्योग और उद्योग विभाग | Ministry of Commerce & Industry
 फ्लोरिबल एंड एक्सप्लोजिव नियंत्रण संगठन (फेसी) | Explosives & Explosives Safety Organisation (FESCO)
 पूर्व नाम: विस्फोटक विभाग | Formerly- Department of Explosives
 A और D - विंग ब्लॉक 1-3, मुख्य भवन, शास्त्री भवन | A & D - Wing, Block 1-3, Hind Floor, Shastry Bhawan
 26 हददुसरा रोड, नंगम्बळम चेंनी | 26 Haddusa Road, Nangambalam Chennai 600006
 फोन (Phone): 28281023 | फैक्स (Fax): 28284948
 ई-मेल Email: jccochennai@explosives.gov.in



संख्या (No.): E/SS/TN/30/251(E76986)

किसमें | To:

M. Srinivasan, C. Thevarasani,
 63, R.V. Nagar Thiruvani, 2nd Street, Dandigal, Tamil Nadu, Pincode - 42
 District-DINDUKUL, State-Tamil Nadu, Pincode -

विषय: विस्फोटक नियम, 2008 के अंतर्गत प्रारूप LE-10 में जारी Shot Fiver's Certificate संख्या E/SS/TN/30/251(E76986) के नवीनीकरण संदर्भ में।
 Subject: Shot Fiver's Certificate Certificate No.: E/SS/TN/30/251(E76986) granted in Form LE-10 of Explosives Rules, 2008 - Renewal regarding.

संदर्भ | Ref.

आपका उपरोक्त विषय पर पत्र संख्या x दिनांक 16/01/2019 का संदर्भ कृपया न करें। प्रमाणपत्र 14/8/2023 तक पुनः सत्यापित कर इस पत्र के साथ भेजी जा रही है।
 Reference to your letter No. x dated: 16/01/2019, the subject certificate duly revalidated upto 14/8/2023 and issued in Form LE-10 of Explosives Rules, 2008 is forwarded herewith.

Conditions:

1) Blasting work in connection with well Sinking/Road Construction/Agricultural work etc.

प्रमाणपत्र के पुनः सत्यापित करने हेतु कृपया निम्नलिखित दस्तावेज दिनांक 14/8/2023 से पहले उप मुख्य विस्फोटक निबंधक कार्यालय को भेजे जाएंगे।
 For further revalidation of certificate, please submit the following documents so as to reach The Dy. Chief Controller of Explosives, Chennai on or before 14/8/2023.

- प्रारूप आरई-1 में विधिवत पूर्ण एवं हस्ताक्षरित आवेदन।
Application in Form RE-1 duly filled in and signed.
- के शिष्ट प्रारूप LE-10 में जारी मूल अनुमति।
Original Shot Fiver's Certificate in Form LE-10.
- संबंधी प्रारूप नं. 100 का एक प्रतिलिपि: एक प्रतिलिपि किसी भी राष्ट्रीयकृत बैंक के जमान अर्थात्, संयुक्त मुख्य विस्फोटक निबंधक, चेंनी के पास में भेजाई में देव है।
Security for Rs. 100/- DD shall be drawn in favour of Jt. Chief Controller of Explosives, Chennai payable at Chennai.
- अधिकांश द्वारा विधिवत हस्ताक्षरित फोटोई आकार के रंगीन फोटो की छः प्रतियां (विस्फोटक नियम 2008 के नियम 2(37) के अंतर्गत क्या परिभाषित) सहित।
फारो रंग की अमिट स्टाफी (बट्टि प्रस्तुत नहीं किया गया हो हो)।
Six copies of colour passport size photographs duly signed by the occupier (as defined under Rule 2 (37) of Explosives Rules, 2008) 'in front' by 'black color indelible ink'.
- पंजीकृत चिकित्सक व्यवसायी से एक शारीरिक फिटनेस प्रमाणपत्र।
A physical fitness certificate from Registered medical practitioner.
- वर्तमान नियोजक तथा प्रारूप नं. 3 के अनुमति धारक से प्रमाणपत्र धारक की सेवाओं पर काम होने संबंधी एक लिखित पत्र।
A covered letter from the present employer holding License in Form LE-3 and intending to hire the services of Certificate holder.
- अनुमति धारक को पूर्णतः प्राधिकरण के सामने खुद को प्रेष करना होगा।
The Shot Fiver's Certificate holder has to present himself physically before reviewing/validating Authority.
- विस्फोटक नियम, 2008 के प्राधान्य के अंतर्गत या कर्तव्य की उल्लंघन जिससे मजबूत जीवन का नुकसान हो की दृष्ट से इस प्रमाणपत्र को रद्द / वापस ले लिया जाएगा।
This Certificate is liable to be cancelled/withdrawn on contravention of provision of Explosive Rules, 2008 or dereliction of duty during working leading to loss of human life.

सही | Your's faithfully

Srinivasan

(SUNILAN KURIAN)

उप विस्फोटक निबंधक | Dy. Controller of Explosives

यूजे संयुक्त मुख्य विस्फोटक निबंधक | For Joint Chief Controller of Explosives
 दक्षिणवर्त, चेंनी | South Circle, Chennai

प्रतिलिपि भेजा | Copy Forwarded to:

1. Police Station, DINDUKUL, Tamil Nadu with reference to his Noe No NR.1 Dated: 23/12/2018

यूजे संयुक्त मुख्य विस्फोटक निबंधक | For Joint Chief Controller of Explosives
 दक्षिणवर्त, चेंनी | South Circle, Chennai

(अधिक जानकारी के लिए आदेश की प्रतिलिपि, प्रारूप आदि के लिए हमारी वेबसाइट <http://pms.gov.in> देखें।)
 (For more information regarding status, fees and other details please visit our website <http://pms.gov.in>)

223-Srinivasan

अनुमति प्राप्त फॉर्म नं. - 101 Form LE-10
 (अनुच्छेद 1V के अंतर्गत) का अतिरिक्त 10 (अ) | Shot Firing Certificate
 (विस्फोटक विस्फोटक नियम, 2008 का नियम 107(3) का) | See article 10 of Part I of Schedule (Y)
 (विस्फोटक विस्फोटक नियम, 2008 का नियम 107(3) का) | See rule 107(3) of Explosives Rules, 2008)

(खान अधिनियम, 1952 के अधीन न आने वाले क्षेत्र में विस्फोटक करने के लिए प्रमाणपत्र पत्र
 (Certificate of competency to carry out blasting of explosives in areas not coming under the M)



V. M. ...

संख्या | No.: E/SS/TN/3WZ51(E76986)

प्रमाणित किया जाता है कि श्री T. Manimaran/S/a.C. Thevaranai,
 जिनका जन्म, 07/08/1973 को हुआ था, जो 63, R.V. Nagar Thottam, 2nd Street, Dindigul, DINDIGUL, Tamil Nadu - 624001 के निवासी हैं ने केन्द्रीय
 स्तर पर आयोजित शॉट फायर की परीक्षा तारीख को उत्तीर्ण कर ली है और वह विस्फोटक अधिनियम, 1884 और उसके अधीन विरचित नियमों के
 उपबंधों के अधीन रहते हुए खान अधिनियम, 1952 की परिधि के अधीन आनेवाले खानों से अन्यथा क्षेत्र में नीचे यथा उल्लिखित विस्फोटकों का उपयोग करते
 हुए विस्फोटक प्रदान करने के लिए प्राधिकृत है।

This is to certify that Shri T. Manimaran/S/a.C. Thevaranai,
 born on 07/08/1973, resident of 63, R.V. Nagar Thottam, 2nd Street, Dindigul, DINDIGUL, Tamil Nadu - 624001 passed the shotfirer's examination
 held on conducted by Sivakasi and is authorised to conduct blasting operations as mentioned below using explosives in areas other than mines coming under
 the purview of the Mines Act 1952, subject to the provisions of the Explosives Act, 1884 and the rules framed thereunder.

विस्फोटक करने के प्राधिकृत वर्ग, प्रकार और प्रकार :
 वर्ग: (B), श्रेणी: सामान्य अंतर्गत के ऊपर, अंतर्गत के ऊपर क्वार्टरिंग अपरेटर

Authorised class, category and type of blasting :
 Class : (B), Category : General aboveground, All phases of aboveground blasting operation

[नियम 107 का उप-नियम (3) का स्पष्टीकरण देखें | See explanation of sub-rule (3) of rule 107]

यह प्रमाणपत्र 14/08/2018 (जारी करने की तारीख से पांच वर्ष) तक विधिवानुषंग होगा।
 This certificate shall remain valid till 14/08/2018 (five years from the date of issue)

यह प्रमाणपत्र, अधिनियम का उसके अधीन विरचित नियमों अथवा इस प्रमाणपत्र की शर्तों का कोई उल्लंघन करने पर या यदि आवेदक द्वारा
 आवेदन प्रारूप में दी गई सूचना में कोई फर्क या विचलन होता है तो निलम्बित या अतिरिक्त कर दिया जाएगा।

This certificate is liable to be suspended or revoked for any violation of the Act or rules framed thereunder or the conditions of this certificate or if
 there is any discrepancy or deviation in the information or suppression of facts furnished by the applicant in his application form.

स्थान | Place : सिवाकसी | Sivakasi
 दिनांक | Date : 14/08/2018

Sd/-
 उप मुख्य विस्फोटक निरीक्षक | Dy. Chief Controller of Explosives
 सिवाकसी | Sivakasi

Amendments :
 • Change in Postal Address/Purpose/Attached to Magazine dated : 07/03/2017

पुनर्विधिवानुषंगण के लिए पुष्टीकरण
 Endorsement for revalidation

पुनर्विधिवानुषंगण की तारीख Date of Revalidation	समाप्ति की तिथि Date of Expiry	अनुमति प्राधिकारी के हस्ताक्षर Signature of Licensing authority
30/01/2019	14/08/2023	Jt. Chief Controller of Explosives, South Circle, Chennai

सावधानी चेतावनी : विस्फोटकों को बजात क्षेत्र में धराने या उनका दुरुस्वीकार विधि के अधीन नोकरों द्वारा किया जाएगा
 Statutory Warning : Mishandling and release of explosives shall constitute serious criminal offence under the law.

<http://10.0.1.11/IntExp/FirerPermitLE10Hindi.asp?LetterGeneratedYN=Y>

-1/30/2019

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यस विस्फोटकों की वेबसाइट को गोपनीयता के अंतर्गत आर-7 में प्रस्तुत की जाए। विशेषज्ञों को मुख्य विस्फोटक विभाग, बिहार के कार्यालयों में आगामी तिथि के तिथि से पहले पहुंच जानी चाहिए (आतिशबाजी गेटम के लिए लागू नहीं है)। Please ensure that the information is RE-7 at the end of every quarter so as to reach the Controller of Explosives in the preceding quarter. (Not applicable for fireworks stores)

आपके विस्फोटक कार्यों में एक संयुक्त रूप से आपकी ओर से नियमों के तहत एक वेध शॉट फायर प्रमाणपत्र धारक को शामिल करने के लिए आपकी वेबसाइट में दस्तावेज अपडेट करने वाले दस्तावेज की योग्यता उसी तिथि तक संचालित हो।

All blasting operations shall be carried out by a person holding a valid person's permit granted under these rules. All blasting operations in mine shall be under the purview of the Mines Act 1952, the blaster shall have qualifications prescribed in the regulations framed under the said Act.

भवदीय | Your's faithfully

डॉ. ए. अब्दुल हुसैन | Dr. A SHEIK HUSSAIN

विस्फोटक नियंत्रक | Controller of Explosives

संयुक्त मुख्य विस्फोटक नियंत्रक | For Joint Chief Controller of Explosives

दक्षिणांचल, चेन्नई | South Circle, Chennai

कॉपी प्रेषित | Copy Forwarded etc.

जिला मजिस्ट्रेट (District Magistrate), DINDIGUL (Tamil Nadu)- सूचना के लिए (for information.)

संयुक्त मुख्य विस्फोटक नियंत्रक | For Joint Chief Controller of Explosives

दक्षिणांचल, चेन्नई | South Circle, Chennai

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क आदि के लिए हमारी वेबसाइट <http://peso.gov.in> देखें।)

(For more information regarding status, fees and other details please visit our website <http://peso.gov.in>)

Note :- This is system generated document does not require physical signature. Applicant may take printout for their records.

Disclaimer : This page gives the latest action taken by this organization on your application. This page is made available for the information of concerned applicant/licensee only. All efforts have been made to secure this information. However, PESO will not be responsible for any misuse of the information by unauthorized persons including the hackers.

Dr. P. V. V. V.

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SECRET



भारत सरकार, नई दिल्ली

Ministry of Explosives Safety Organisation (PE&O)

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008



Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

Explosives Rules, 2008

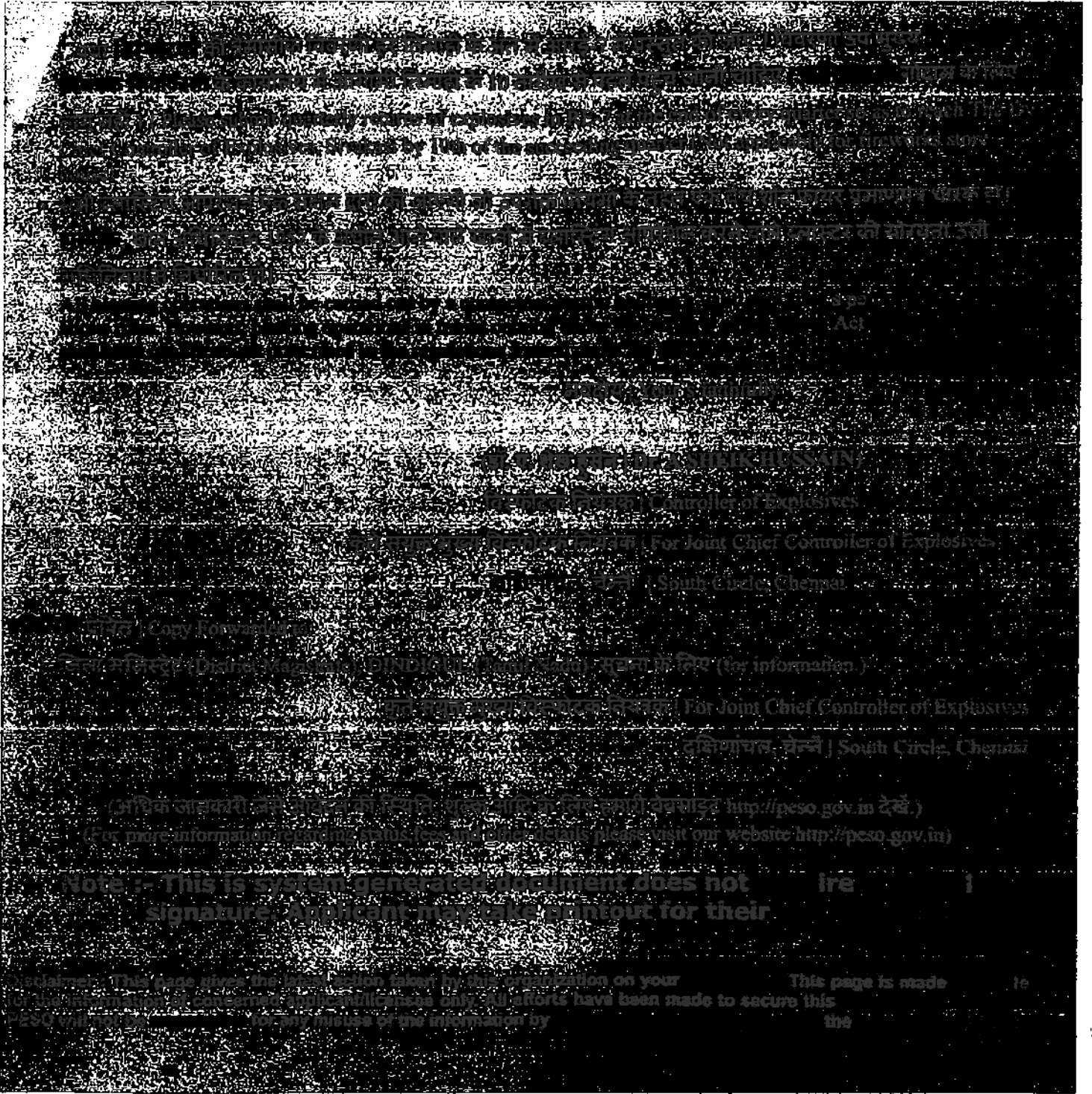
Explosives Rules, 2008

available on online

के क्रय हेतु आर्डर-11 में आंगपत्र (इंडेंट) जाए। गोदाम के लिए लागू नहीं।।

और उसी की एक प्रति इस कार्यालय को भेजी जाए।

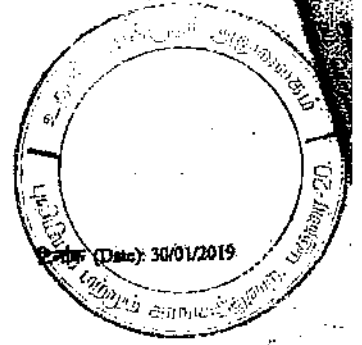
with the supplier and copy of the same shall be sent to



Handwritten signature or mark



भारत सरकार | Government of India
 वाणिज्य और उद्योग मंत्रालय | Ministry of Commerce & Industry
 पेट्रोब्लिचम तथा विस्फोटक सुरक्षा संगठन (पेसो) | Petroleum & Explosives Safety Organization (PESO)
 पूर्व नाम- विस्फोटक विभाग | Formerly- Department of Explosives
 A और D - विंग, ब्लॉक 1-8, दूसरा मंज, शास्त्री भवन | A & D - Wing, Block 1-8, 11th Floor, Shastri Bhawan
 26 हड्डोडस रोड, नुंगम्बेक्कम चेन्नई | 26 Haddous Road, Nungambakkam Chennai 600006
 फोन (Phone):- 28281023 | फैक्स (Fax):- 28284848
 ई-मेल Email: jcc@peso.gov.in



संख्या (No.): E/SS/TN/30/251(E76986)

प्रेषण में | To

T.Manivanan/S.C.Thavamani,
 63, R.V.Nagar Thottam, 2nd Street, Dindigul, Town-Village - 42
 District-DINDIGUL, State-Tamil Nadu, Pincode -

विषय: विस्फोटक नियम, 2008 के अंतर्गत प्ररूप LE-10 में जारी Shot Firer's Certificate संख्या E/SS/TN/30/251(E76986) के नवीनीकरण संदर्भ में।
 Subject: Shot Firer's Certificate Certificate No.: E/SS/TN/30/251(E76986) granted in Form LE-10 of Explosives Rules, 2008 - Renewal regarding.

महोदय | Sir,

आपका उपरोक्त विषय पर पत्र संख्या x दिनांक 16/01/2019 का संदर्भ यहण करें। प्रमाणपत्र 14/8/2023 तक पुनः सत्यापित कर इस पत्र के साथ भेजी जा रही है।
 Reference to your letter No.: x dated: 16/01/2019, the subject certificate duly revalidated upto 14/8/2023 and issued in Form LE-10 of Explosives Rules, 2008 is forwarded herewith.

Conditions:

1) Blasting work in connection with well Sinking/Road Construction/Agricultural work etc.

प्रमाणपत्र के पुनः सत्यापित करने हेतु कृपया निम्नलिखित दस्तावेज दिनांक 14/8/2023 से पहले उप मुख्य विस्फोटक निबंधक सिवाकासी को भेजे जाएं।
 For further revalidation of certificate, please submit the following documents so as to reach The Dy. Chief Controller of Explosives, Sivakasi on or before 14/8/2023.

- प्ररूप आरई-1 में विधिवत पूर्ण एवं हस्ताक्षरित आवेदन।
Application in Form RE-1 duly filled in and signed.
- के लिए प्ररूप LE-10 में जारी मूल अनुमति।
Original Shot Firer's Certificate in Form LE-10.
- संवीक्षा शुल्क रु. 100 का बैंक ड्राफ्ट। बैंक ड्राफ्ट किसी भी राष्ट्रीयकृत बैंक के नाम आह्वित, संबुक्त मुख्य विस्फोटक निबंधक, चेन्नई के पत्र में चेन्नई में देय हों।
Scrutiny fee Rs. 100/- DD shall be drawn in favour of Jt. Chief Controller of Explosives, Chennai payable at Chennai.
- अधिभोगी द्वारा विधिवत हस्ताक्षरित पासपोर्ट आकार के रंगीन फोटो की छः प्रतियां (विस्फोटक नियम 2008 की नियम 2(37) के अंतर्गत क्या परिभाषित) सामने काले रंग की अमिट स्याही (यदि प्रस्तुत नहीं किया गया हो तो)।
Six copies of colour passport size photographs duly signed by the occupier (as defined under Rule 2 (37) of Explosives Rules, 2008) 'in front' by 'black colour indelible ink'.
- पंजीकृत चिकित्सा व्यवसायी से एक शारीरिक स्वस्थता प्रमाणपत्र।
A physical fitness certificate from Registered medical practitioner
- वर्तमान नियोजता तथा प्ररूप एल.ई. 3 के अनुमति धारक से प्रमाणपत्र धारक की सेवाओं का लाभ लेने संबंधी एक सहमति पत्र।
A consent letter from the present employer holding Licence in Form LE-3 and intending to hire the services of Certificate holder.
- अनुमति धारक को पुनर्बोध प्राधिकरण के सामने खुद को पेश करना होगा।
The Shot Firer's Certificate holder has to present himself physically before reviewing/revalidating Authority.
- विस्फोटक नियम, 2008 के प्रावधान के उल्लंघन या कर्तव्य की उल्लंघना जिससे मानव जीवन का नुकसान हो, की दश में इस प्रमाणपत्र को रद्द / वापस ले लिया जाएगा।
This Certificate is liable to be cancelled/withdrawn on contravention of provision of Explosive Rules, 2008 or dereliction of duty (during working) leading to loss of human life.

समर्पण | Yours faithfully

(SUNILAN KUMAR)

उप विस्फोटक निबंधक | Dy. Controller of Explosives
 कृते संयुक्त मुख्य विस्फोटक निबंधक | For Joint Chief Controller of Explosives
 दक्षिणांचल, चेन्नई | South Circle, Chennai

प्रतिप्रिधि प्रेषित | Copy Forwarded to:

1. Police Station, DINDIGUL, Tamil Nadu with reference to his No: NPL/1 Dated: 27/12/2018

कृते संयुक्त मुख्य विस्फोटक निबंधक | For Joint Chief Controller of Explosives
 दक्षिणांचल, चेन्नई | South Circle, Chennai

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क आदि के लिए हमारी वेबसाइट <http://peso.gov.in> देखें।)
 (For more information regarding status, fees and other details please visit our website <http://peso.gov.in>)

S. P. 2019

अनुमति प्रत्येक एन.ई.-10 | Form LE-10
 शॉट फायर करने का प्रमाण-पत्र | Shot Firing Certificate
 (अनुसूची IV के भाग 1 का अनुच्छेद 10 देखें | See article 10 of Part I of Schedule IV)
 विस्फोटक नियम, 2008 का नियम 107(5) देखें | See rule 107(5) of Explosives Rules, 2008

(खान अधिनियम, 1952 के अधीन न आने वाले क्षेत्र में विस्फोट करने के लिए सक्षमता प्रम
 (Certificate of competency to carry out blasting of explosives in area not coming under the M



V. M. K.

संख्या | No.: E/SS/TN/30/251(E76986)

प्रमाणित किया जाता है कि श्री T. Manimaran S/o. C. Thavamani,

जिनका जन्म 07/08/1973 को हुआ था, जो 63, R.V. Nagar Thottam, 2nd Street, Dindigul, DINDIGUL, Tamil Nadu - 624001 के निवासी हैं ने, प्रेन्ने
 यदारा तारीख को आयोजित शॉट फायर की परीक्षा तारीख को उत्तीर्ण कर ली है और वह विस्फोटक अधिनियम, 1884 और उसके अधीन विरचित नियमों के
 उपबंधों के अधीन रहते हुए खान अधिनियम, 1952 की परिधि के अधीन आनेवाले खानों से अन्यथा क्षेत्र में नीचे यथा उल्लिखित विस्फोटकों का उपयोग करते
 हुए विस्फोट प्रचालन करने के लिए प्राधिकृत है।

This is to certify that Shri T. Manimaran S/o. C. Thavamani,
 born on 07/08/1973, resident of 63, R.V. Nagar Thottam, 2nd Street, Dindigul, DINDIGUL, Tamil Nadu - 624001 passed the shotfiring's examination
 held on conducted by Sivakasi and is authorised to conduct blasting operations as mentioned below using explosives in areas other than mines coming under
 the purview of the Mines Act 1952, subject to the provisions of the Explosives Act, 1884 and the rules framed thereunder.

विस्फोट करने के प्राधिकृत वर्ग, प्रदर्श और प्रकार :

वर्ग: (B), श्रेणी: सामान्य जमीन के ऊपर, जमीन के ऊपर स्टास्टिंग, आपरोसन

Authorised class, category and type of blasting :

Class : (B), Category : General aboveground, All phases of aboveground blasting operation

[नियम 107 का उप-नियम (5) का स्पष्टीकरण देखें | See explanation of sub-rule (5) of rule 107]

यह प्रमाणपत्र 14/08/2018 (जारी करने की तारीख से पांच वर्ष) तक विधिमान्य होगा।
 This certificate shall remain valid till 14/08/2018 (five years from the date of issue)

यह प्रमाण-पत्र, अधिनियम या उसके अधीन विरचित नियमों अथवा इस प्रमाण-पत्र की शर्तों का कोई अधिक्रमण करने पर या यदि आवेदक यदारा
 आवेदन प्ररूप में दी गई सूचना में कोई फर्क या विचलन होता है तो निलम्बित या अमिडंडित कर दिया जाएगा।

This certificate is liable to be suspended or revoked for any violation of the Act or rules framed thereunder or the conditions of this certificate or if
 there is any discrepancy or deviation in the information or suppression of facts furnished by the applicant in his application form.

स्थान | Place : सिवाकासी | Sivakasi
 दिनांक | Date : 14/08/2013

Sd/-
 उप मुख्य विस्फोटक निबंधक | Dy. Chief Controller of Explosives
 सिवाकासी | Sivakasi

Amendments :

- Change in Postal Address/Purpose/Attached to Magazine dated : 07/03/2017

पुनर्विधिमान्यकरण के लिए पृष्ठंकन
 Endorsement for revalidation

पुनर्विधिमान्यकरण की तारीख Date of Revalidation	समाप्ति की तिथि Date of Expiry	अनुमति प्राधिकारी के हस्ताक्षर Signature of licensing authority
30/01/2019	14/08/2023	Jt. Chief Controller of Explosives, South Circle, Chennai

कानूनी चेतावनी : विस्फोटकों को भ्रष्ट ढंग से धराने वा उनका दुरुपयोग विधि के अधीन गंभीर दंडित अपराध होगा।
Statutory Warning : Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

<http://10.0.1.11/IntExp/FirerPermitLE10Hindi.asp?LetterGeneratedYN=Y>

1/30/2019

11/11/2019

11/11/2019

11/11/2019

11/11/2019

11/11/2019

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11/11/2019

SIRVVO

प्रमाणित किया जाता है कि उपरोक्त विवरण सही है।

दिनांक: 20/07/2023

हस्ताक्षर: [Signature]

नाम: [Name]

पता: [Address]

सिद्धि: [Signature]

नाम: [Name]

दिनांक: 20/07/2023

हस्ताक्षर: [Signature]

नाम: [Name]

पता: [Address]

सिद्धि: [Signature]

नाम: [Name]

दिनांक: 20/07/2023

हस्ताक्षर: [Signature]

नाम: [Name]

पता: [Address]

सिद्धि: [Signature]

नाम: [Name]

दिनांक: 20/07/2023

हस्ताक्षर: [Signature]

नाम: [Name]

पता: [Address]

सिद्धि: [Signature]

नाम: [Name]

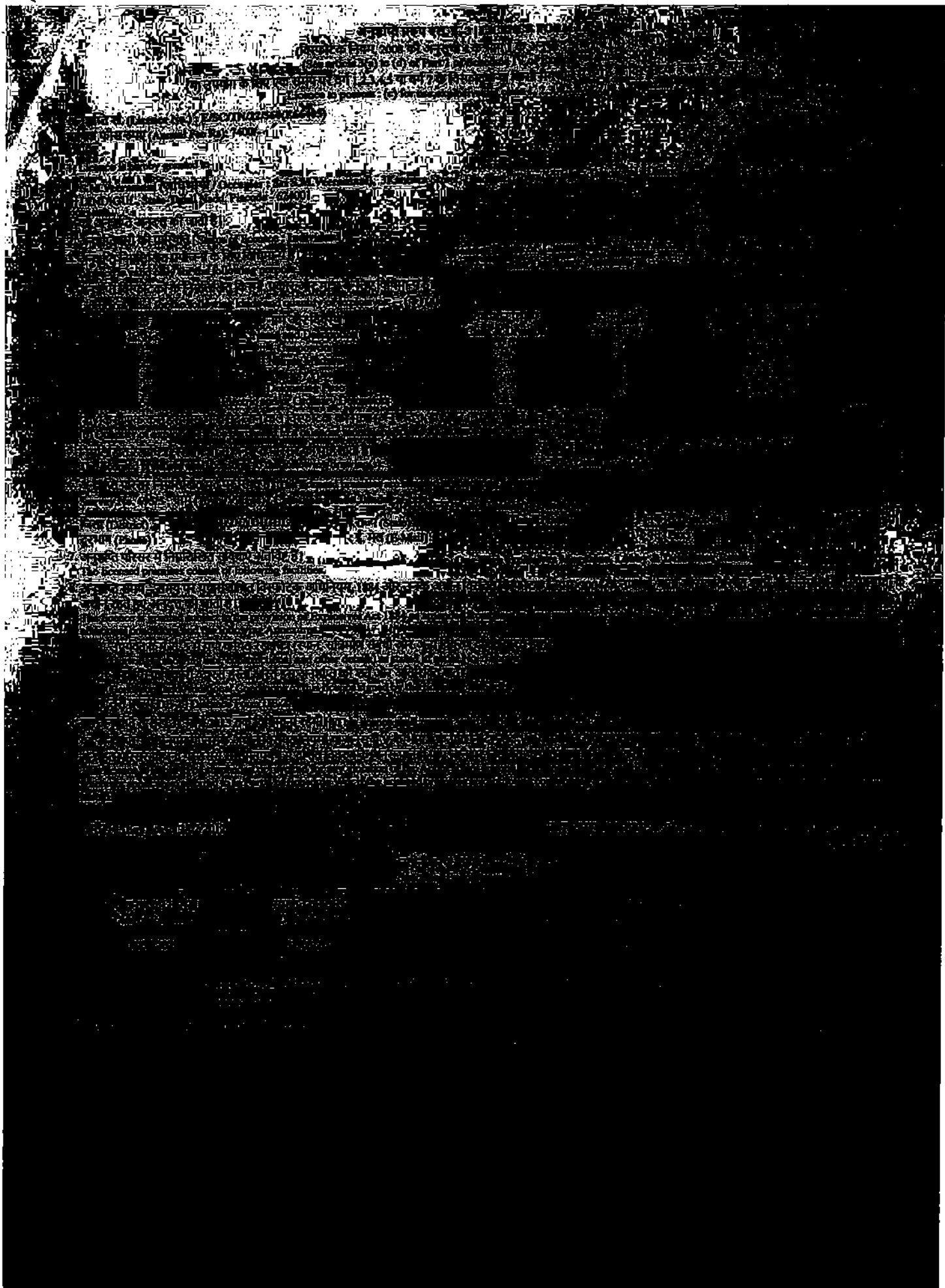
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हस्ताक्षर: [Signature]

नाम: [Name]

पता: [Address]

सिद्धि: [Signature]



S. R. WOOD

UNITED STATES DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
HEADQUARTERS, ADJUTANT GENERAL CENTER
WASHINGTON, D. C. 20315

Form 1 (Rev. 10-1-60) (Use for all assignments)
ADJG 100-10 (Rev. 10-1-60)

1. Name (Last, First, Middle Initial)
2. Grade

3. Duty Station

4. Date of Assignment

5. Reporting Date

6. Reporting Location

7. Reporting Office

8. Reporting Authority

9. Reporting Period

10. Reporting Frequency

11. Reporting Method

12. Reporting Status

13. Reporting Remarks

14. Reporting Signature

15. Reporting Date

16. Reporting Location

17. Reporting Office

18. Reporting Authority

19. Reporting Period

20. Reporting Frequency

21. Reporting Method

22. Reporting Status

23. Reporting Remarks

24. Reporting Signature

25. Reporting Date

26. Reporting Location

27. Reporting Office

28. Reporting Authority

29. Reporting Period

30. Reporting Frequency



NAME OF THE APPLICANT:

S.R. MUTHUPANDI, S/o. Sri. S. RAJENDRAN,
No.328, MELAKKAL MAIN ROAD,
KOCHADAI, ARASARADI, MADURAI SOUTH,
MADURAI DISTRICT - 625 016.

PLATE NO. I

ROUGH STONE & GRAVEL QUARRY

LOCATION PLAN

SCALE:- 1CM = 12.5KMs

INDEX:-

MINING LEASE APPLIED AREA ●

● State capital	— Golden Quadrilateral
● District headquarters	— North-South & East-West Corridors
○ Other town	— National Highway
45 National Highway number	— Railway

PREPARED BY:-

G. Ravichandran
G.RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
MINING GEOLOGIST
RQP / MAS / 197 / 2005 / A
VALID UPTO: 12.12.2025

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S.R. Muthupandi

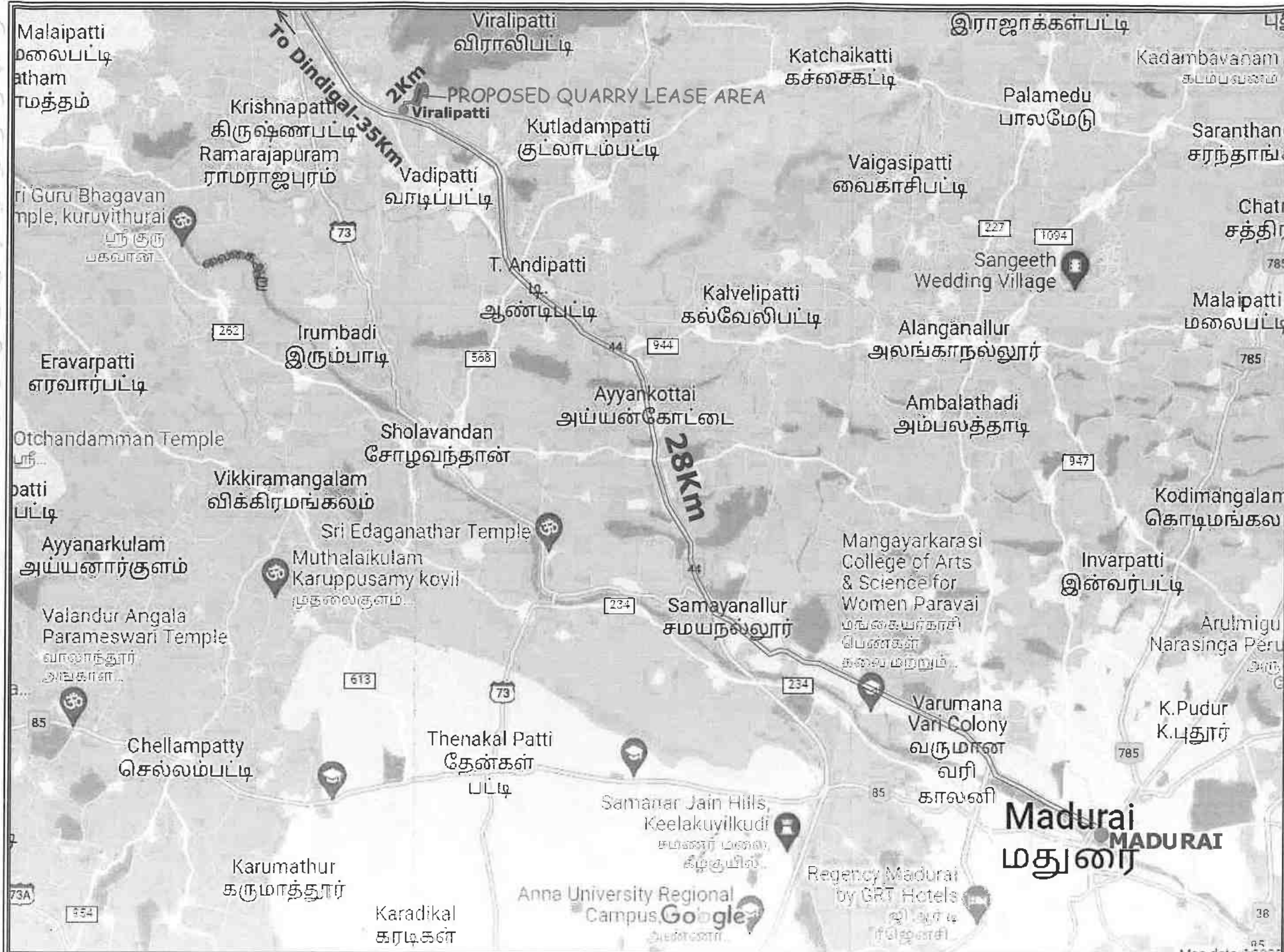
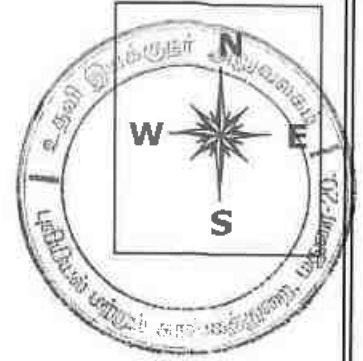


PLATE NO. IA






NAME OF THE APPLICANT:

S.R. MUTHUPANDI, S/o.Sri. S. RAJENDRAN
No.328, MELAKKAL MAIN ROAD,
KOCHADAI, ARASARADI, MADURAI SOUTH
MADURAI DISTRICT - 625 016.

LOCATION FOR PROPOSED QUARRY

DISTRICT : MADURAI
TALUK : VADIPATTI
VILLAGE : VIRALIPATTI
S.F.Nos. : 34/1A,1B,2, 52/2,3 & 60/2
EXTENT : 4-20.00 HECTARE.

INDEX:-


- PROPOSED QUARRY LEASE AREA 
- APPROACH ROAD 
- VILLAGE 

ROUGH STONE & GRAVEL QUARRY

ROUTE MAP

SCALE:- NOT TO SCALE

PREPARED BY:-


G.RAVICHANDRAN, M.Sc.,P.G.D.M.E.M.,
MINING GEOLOGIST
RQP / MAS / 197 / 2005 / A
VALID UPTO. 12.12.2025

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S. R. Muthupandi

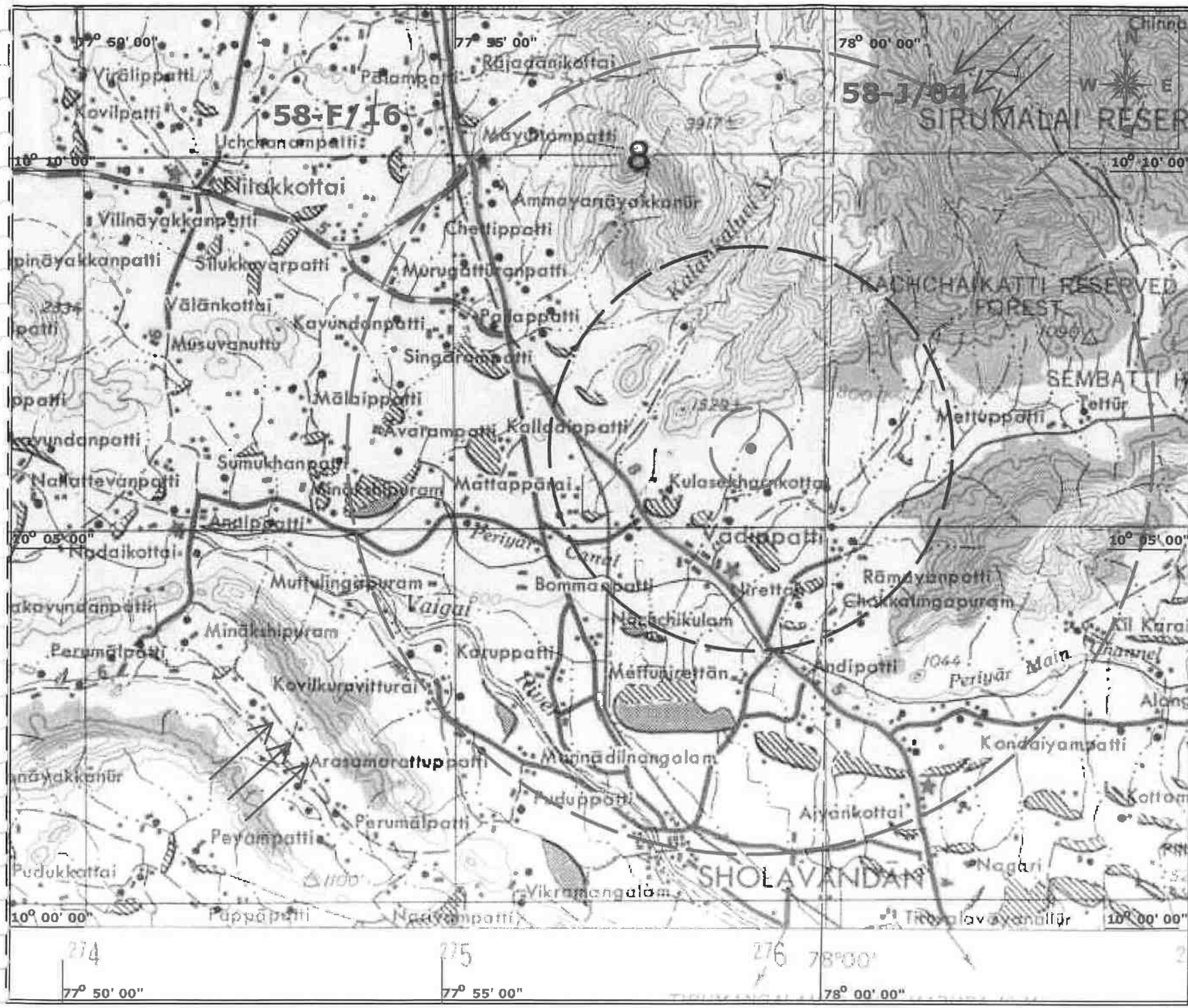






















































PLATE NO. II

NAME OF THE APPLICANT:
S.R. MUTHUPANDI, S/o.Sri. S. RAJENDRAN
No.328, MELAKKAL MAIN ROAD
KOCHADAI, ARASARADI, MADURAI SOUTH,
MADURAI DISTRICT - 625 016.


TOPO SHEET No.58-F/16
LATITUDE :10° 06' 28.4" To 10° 06' 35.7"
LONGITUDE :77°58' 51.5" To 77°59' 00.5"

INDEX:- MINING LEASE AREA ●
WIND DIRECTION 
1KM RADIUS 
5KM RADIUS 
10KM RADIUS 

CONVENTIONAL SYMBOLS

Express highway with toll; with bridge; with distance stone			
Roads, metalled according to importance			
Roads, double camargeway, according to importance			
Unmetalled road Cart-track Pack-track with pass Foot-path			
Streams with track in bed, undefined Canal			
Dams masonry or rock-filled, earthwork Weir			
River dry with water channel, with island & rocks Tidal river			
Submerged rocks Shoal Swamp Reeds			
Wells lined, unlined Tube-well Spring Tanks perennial, dry			
Embankments road or rail, tank Broken ground			
Railways, broad gauge double, single with station, under constr			
Railways, other gauges double, single with distance stone, do			
Mineral line or tramway Kin Cutting with tunnel			
Contours with sub-features Rocky slopes Cliffs			
Sand features: (1)flat (2)sand-hills(permanent) (3)dunes(shifting)			
Towns or Villages inhabited; deserted Fort			

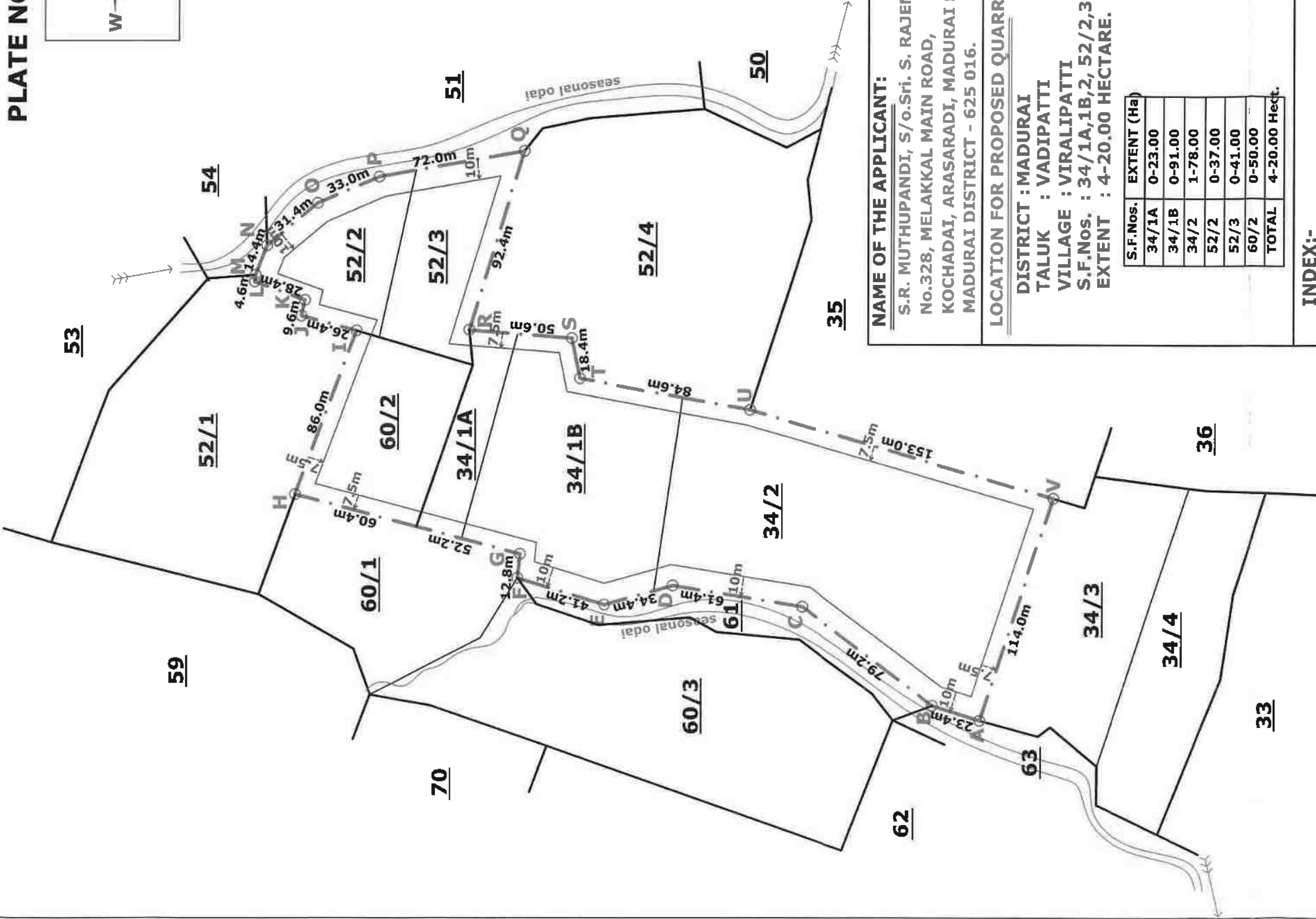
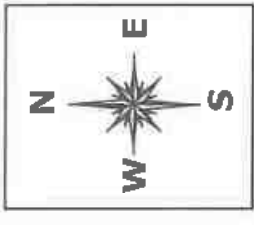
ROUGH STONE & GRAVEL QUARRY
TOPO SKETCH - 10KM RADIUS
SCALE:- 1: 1,00,000

PREPARED BY:-

G.RAVICHANDRAN, M.Sc.,P.G.D.M.E.M.,
MINING GEOLOGIST
RQP / MAS / 197 / 2005 / A
VALID UPTO: 12.12.2025

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S.R. Muthupandi

PLATE NO. III



NAME OF THE APPLICANT:

S.R. MUTHUPANDI, S/o.Sri. S. RAJENDRAN,
 No.328, MELAKKAL MAIN ROAD,
 KOCHADAI, ARASARADI, MADURAI SOUTH,
 MADURAI DISTRICT - 625 016.

LOCATION FOR PROPOSED QUARRY

DISTRICT : MADURAI
 TALUK : VADIPATTI
 VILLAGE : VIRALIPATTI
 S.F.Nos. : 34/1A,1B,2, 52/2,3 & 60/2
 EXTENT : 4-20.00 HECTARE.

S.F.Nos.	EXTENT (Ha)
34/1A	0-23.00
34/1B	0-91.00
34/2	1-78.00
52/2	0-37.00
52/3	0-41.00
60/2	0-50.00
TOTAL	4-20.00 Hect.

INDEX:-

LEASE APPLIED BOUNDARY
 SAFETY DISTANCE - 7.5m
 (& 10m from seasonal oday)

ROUGH STONE & GRAVEL QUARRY

LEASE PLAN

SCALE:- 1: 2000

PREPARED BY:-

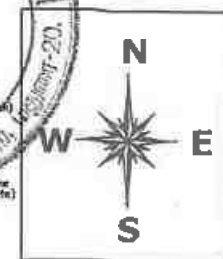
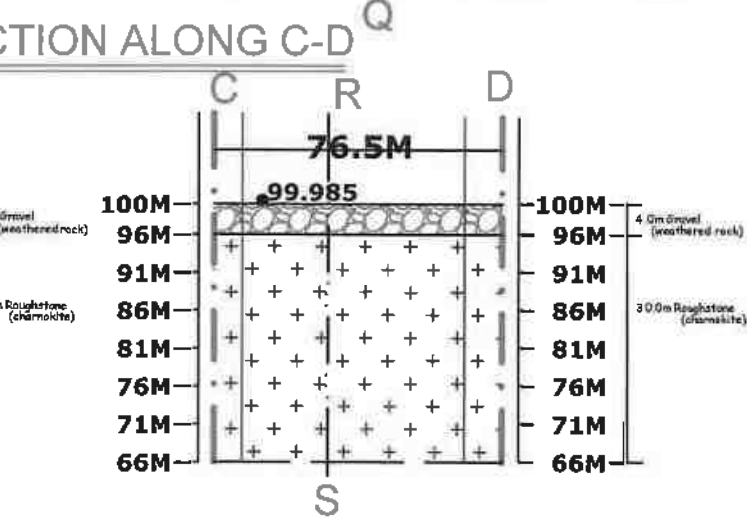
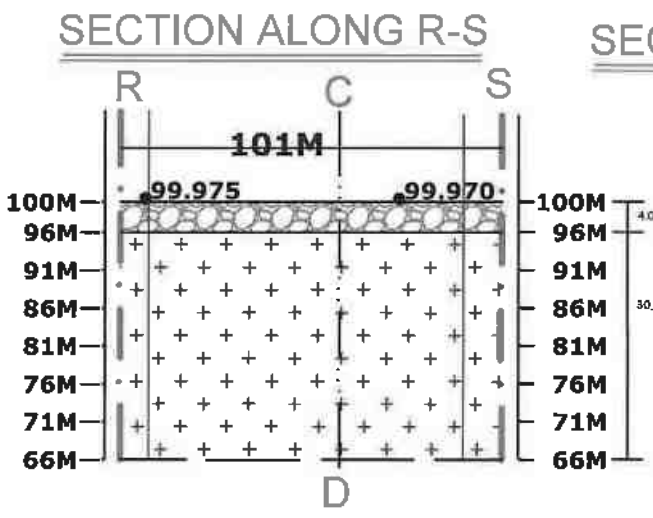
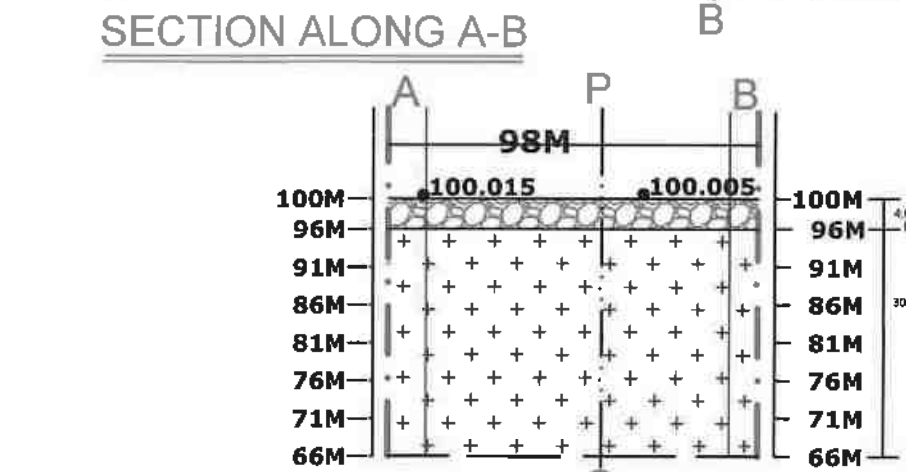
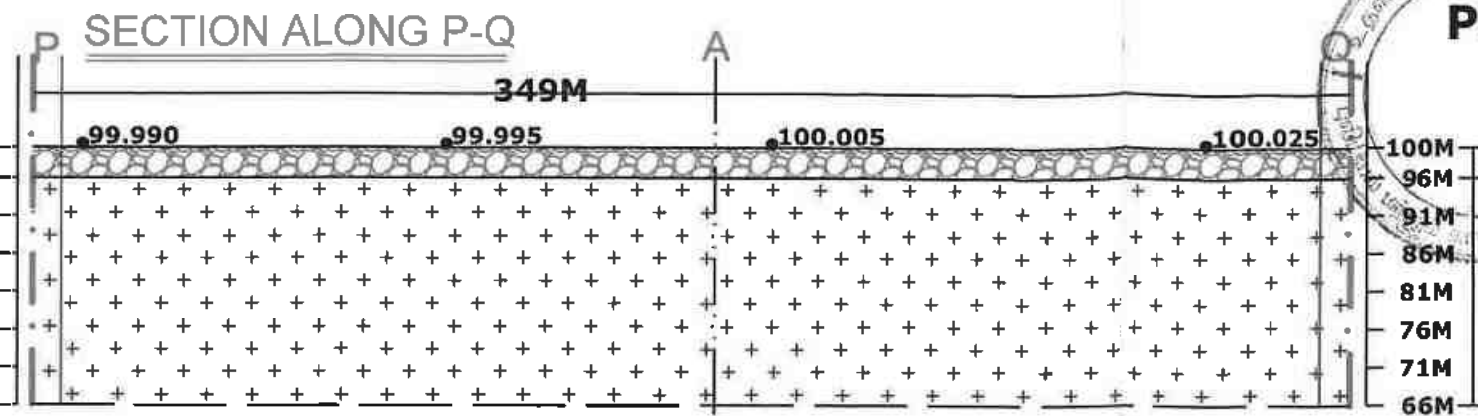
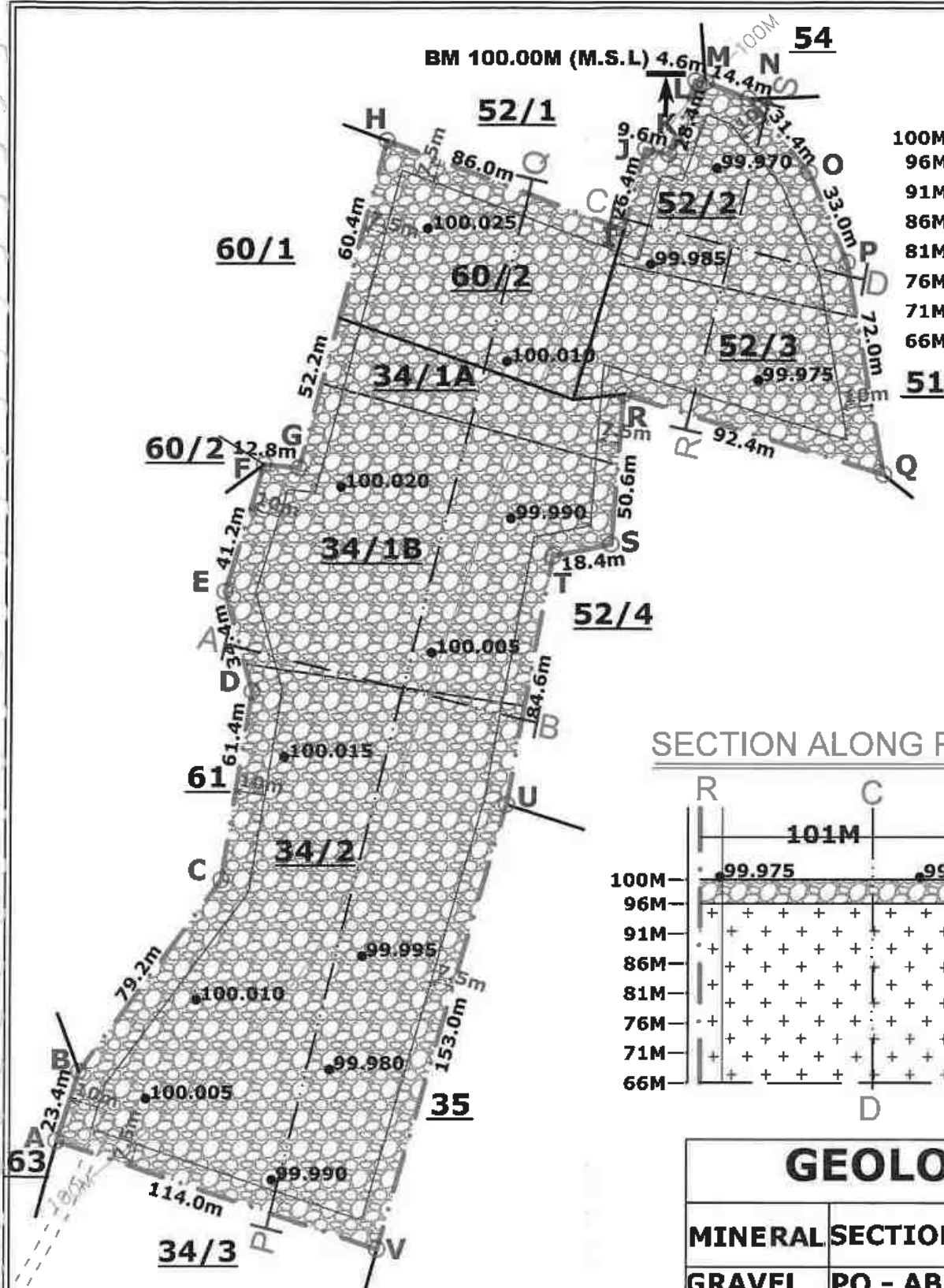
G.RAVICHANDRAN, M.Sc., P.G.D.M.E.M.
 MINING GEOLOGIST
 RQP / MASY / 197 / 2005 / A
 VALID UP TO: 12.12.2025

GPS READINGS ON BOUNDARY PILLARS

PILLAR	LATITUDE	LONGITUDE	PILLAR	LATITUDE	LONGITUDE
A	10° 06' 28.4"	77° 58' 51.5"	L	10° 06' 40.1"	77° 58' 58.6"
B	10° 06' 29.1"	77° 58' 51.7"	M	10° 06' 40.0"	77° 58' 58.7"
C	10° 06' 31.2"	77° 58' 53.3"	N	10° 06' 39.9"	77° 58' 59.2"
D	10° 06' 33.3"	77° 58' 53.6"	O	10° 06' 39.1"	77° 58' 59.8"
E	10° 06' 34.4"	77° 58' 53.4"	P	10° 06' 38.1"	77° 59' 00.2"
F	10° 06' 35.8"	77° 58' 53.8"	Q	10° 06' 35.7"	77° 59' 00.6"
G	10° 06' 35.8"	77° 58' 54.2"	R	10° 06' 36.6"	77° 58' 57.8"
H	10° 06' 39.4"	77° 58' 55.2"	S	10° 06' 34.2"	77° 58' 57.6"
I	10° 06' 38.4"	77° 58' 57.8"	T	10° 06' 34.8"	77° 58' 57.0"
J	10° 06' 39.3"	77° 58' 58.0"	U	10° 06' 32.1"	77° 58' 56.5"
K	10° 06' 39.2"	77° 58' 58.3"	V	10° 06' 27.2"	77° 58' 55.1"

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(Handwritten signature)



NAME OF THE APPLICANT:
 S.R. MUTHUPANDI, S/o.Sri. S. RAJENDRAN,
 No.328, MELAKKAL MAIN ROAD,
 KOCHADAI, ARASARADI, MADURAI SOUTH,
 MADURAI DISTRICT - 625 016.

- INDEX:-**
- LEASE APPLIED BOUNDARY
 - SAFETY DISTANCE 7.5M (& 10m from seasonal odai)
 - BOUNDARY PILLARS
 - CONTOURS
 - BENCH MARK (M.S.L.)
 - APPROACH ROAD
 - WEATHERED GNEISS (GRAVEL)
 - CHARNOKITE (ROUGHSTONE)

ROUGH STONE & GRAVEL QUARRY
SURFACE CUM GEOLOGICAL
PLAN & SECTIONS

PLAN SCALE:- 1: 2000
 SECTION SCALE:- HOR- 1: 2000, VER- 1:1000

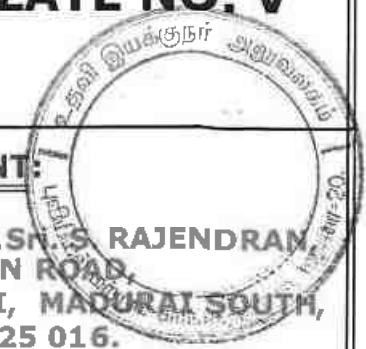
ALL PLANS AND SECTIONS ARE PREPARED
 BASED ON THE LEASE MAP AUTHENTICATED
 BY STATE GOVERNMENT.

G. Ravichandran
 G.RAVICHANDRAN, M.Sc.,P.G.D.M.E.M.,
 MINING GEOLOGIST
 RQP / MAS / 197 / 2005 / A
 VALID UPTO: 12.12.2025

GEOLOGICAL RESERVES						TOTAL GEOLOGICAL RESERVES IN CUM
MINERAL	SECTION	Length [M]	Width [M]	Depth [M]	VOLUME IN CUM	
GRAVEL (weathered rock)	PQ - AB	349	80.5	4.0	136808	1,67,714
	RS - CD	101	59	4.0	30906	
ROUGH STONE	PQ - AB	349	80.5	30.0	1026060	12,57,855
	RS - CD	101	59	30.0	231795	
TOTAL GEOLOGICAL RESERVES					14,25,569 Cu.m.	

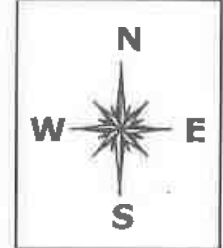
239

G.R. Ravichandran



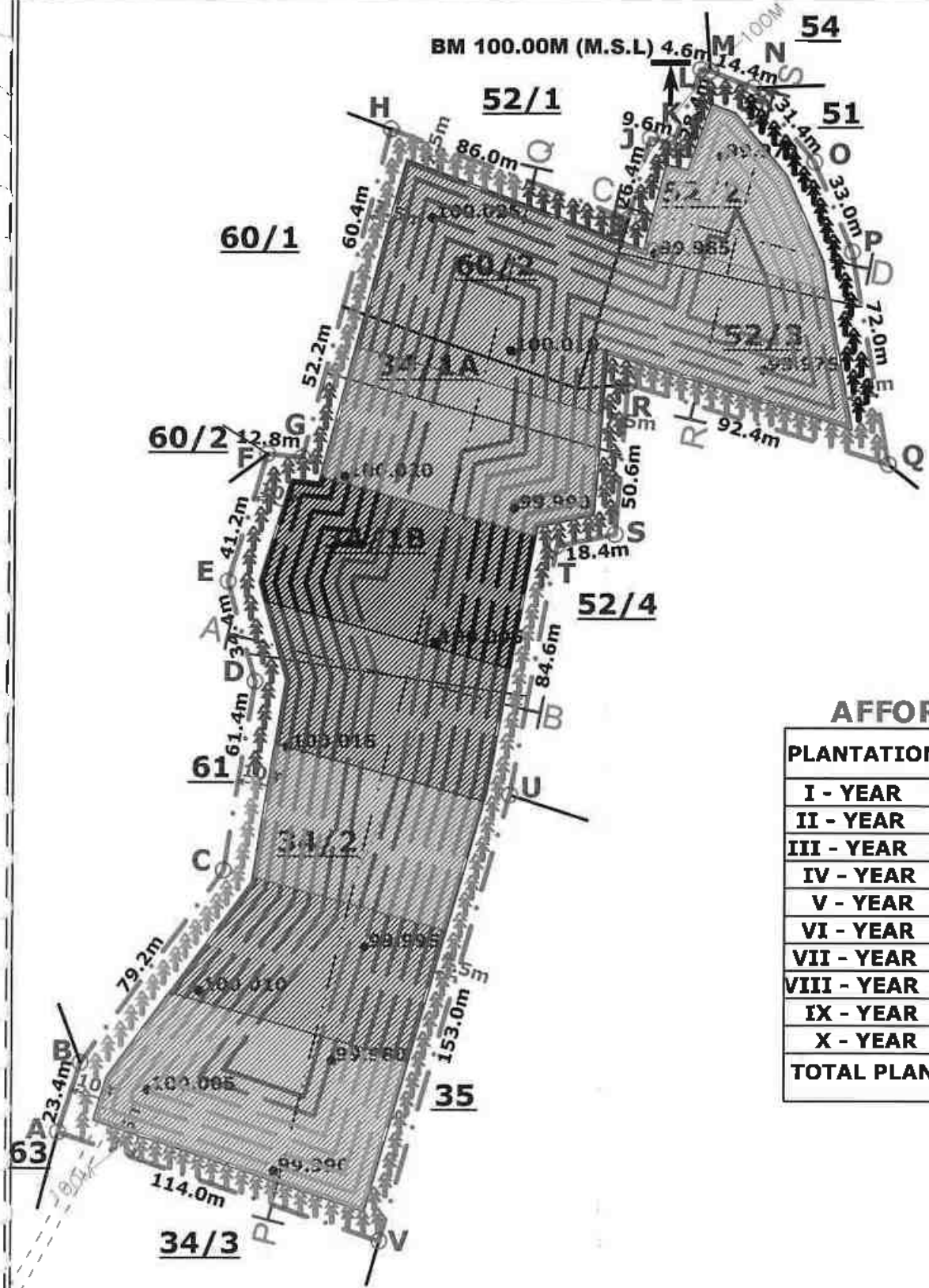
NAME OF THE APPLICANT:

S.R. MUTHUPANDI, S/o. SRI S. RAJENDRAN
No.328, MELAKKAL MAIN ROAD,
KOCHADAI, ARASARADI, MADURAI SOUTH,
MADURAI DISTRICT - 625 016.



INDEX:-

- LEASE APPLIED BOUNDARY
- SAFETY DISTANCE 7.5M
(& 10m from seasonal odai)
- I - YEAR EXCAVATION
- II - YEAR EXCAVATION
- III - YEAR EXCAVATION
- IV - YEAR EXCAVATION
- V - YEAR EXCAVATION
- VI - YEAR EXCAVATION
- VII - YEAR EXCAVATION
- VIII - YEAR EXCAVATION
- IX - YEAR EXCAVATION
- X - YEAR EXCAVATION



AFFORESTATION PROGRAMME

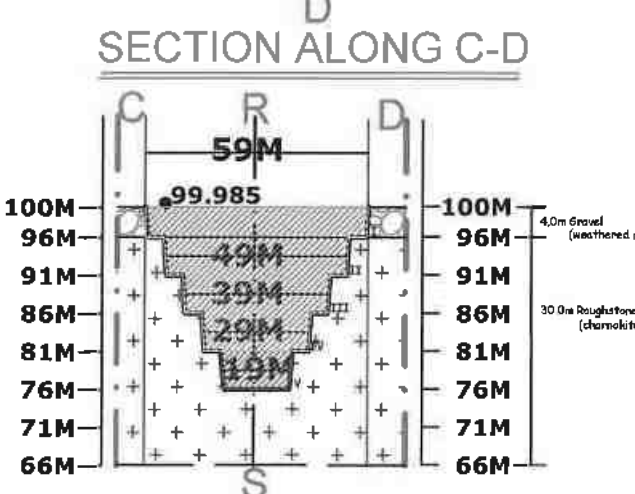
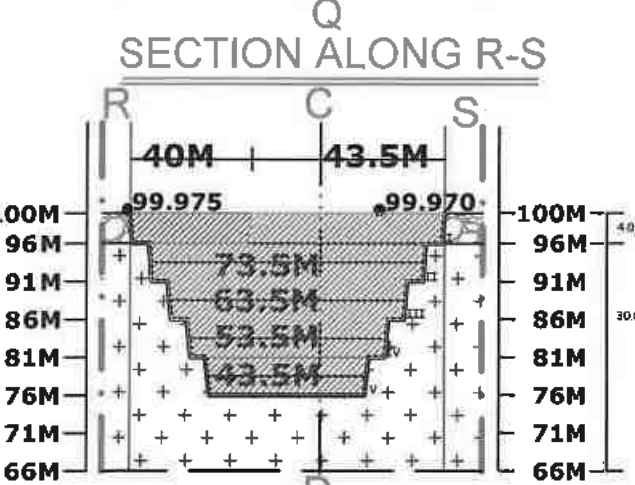
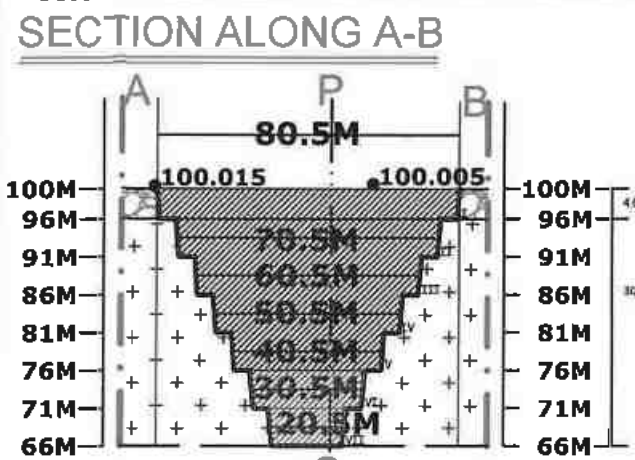
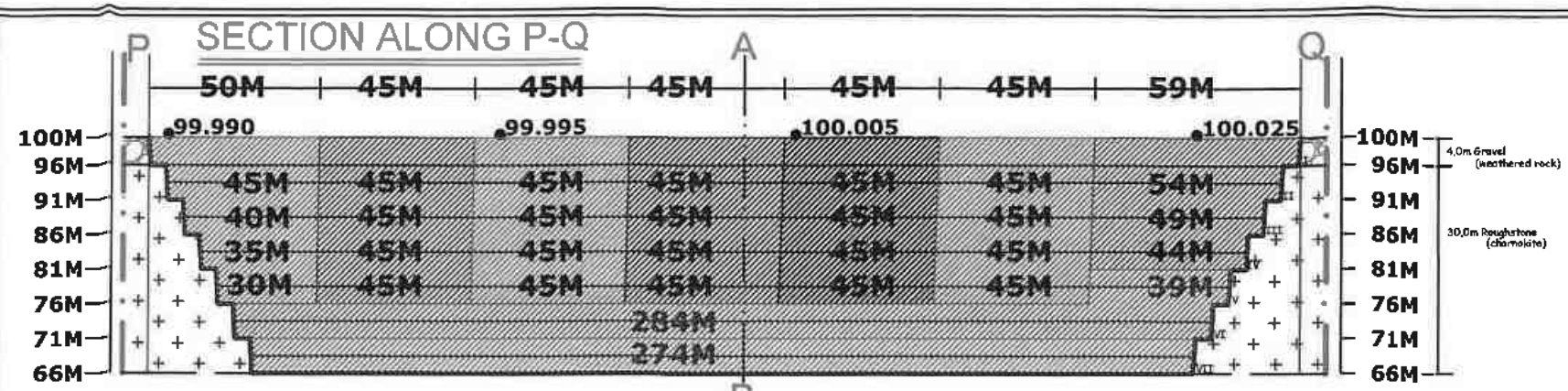
PLANTATION	TYPE	No of TREES	SPACING	AREA (Ha)	SURVIVAL	
I - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
II - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
III - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
IV - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
V - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
VI - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
VII - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
VIII - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
IX - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
X - YEAR	NEEM	20	6m x 6m	0-07.2	80%	🌳
TOTAL PLANTATION		200		0-72.0Ha		

ROUGHSTONE/JELLY/GRAVEL QUARRY
**LAND USE CUM YEARWISE
PLAN** PLAN SCALE:- 1: 2000

ALL PLANS AND SECTIONS ARE PREPARED
BASED ON THE LEASE MAP AUTHENTICATED
BY STATE GOVERNMENT.

G. Ravichandran
G. RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
MINING GEOLOGIST
RQP / MAS / 197 / 2005 / A
VALID UPTO: 12.12.2025

S.R. Muthupandi



YEARWISE PRODUCTION SCHEDULE						VOLUME IN CUM		TOTAL PRODUCTION IN CUM
YEAR	SECTION	BENCH	LENGTH[M]	WIDTH[M]	HEIGHT[M]	GRAVEL	ROUGHSTONE	
I - YEAR	P-Q & A-B	I	50	80.5	4.0	16100	---	58,975
	P-Q & A-B	II	45	70.5	5.0	---	15862.5	
	P-Q & A-B	III	40	60.5	5.0	---	12100	
	P-Q & A-B	IV	35	50.5	5.0	---	8837.5	
	P-Q & A-B	V	30	40.5	5.0	---	6075	
II - YEAR	P-Q & A-B	I	45	80.5	4.0	14490	---	64,440
	P-Q & A-B	II	45	70.5	5.0	---	15862.5	
	P-Q & A-B	III	45	60.5	5.0	---	13612.5	
	P-Q & A-B	IV	45	50.5	5.0	---	11362.5	
	P-Q & A-B	V	45	40.5	5.0	---	9112.5	
III - YEAR	P-Q & A-B	I	45	80.5	4.0	14490	---	64,440
	P-Q & A-B	II	45	70.5	5.0	---	15862.5	
	P-Q & A-B	III	45	60.5	5.0	---	13612.5	
	P-Q & A-B	IV	45	50.5	5.0	---	11362.5	
	P-Q & A-B	V	45	40.5	5.0	---	9112.5	
IV - YEAR	P-Q & A-B	I	45	80.5	4.0	14490	---	64,440
	P-Q & A-B	II	45	70.5	5.0	---	15862.5	
	P-Q & A-B	III	45	60.5	5.0	---	13612.5	
	P-Q & A-B	IV	45	50.5	5.0	---	11362.5	
	P-Q & A-B	V	45	40.5	5.0	---	9112.5	
V - YEAR	P-Q & A-B	I	45	80.5	4.0	14490	---	64,440
	P-Q & A-B	II	45	70.5	5.0	---	15862.5	
	P-Q & A-B	III	45	60.5	5.0	---	13612.5	
	P-Q & A-B	IV	45	50.5	5.0	---	11362.5	
	P-Q & A-B	V	45	40.5	5.0	---	9112.5	
FIRST FIVE YEAR PRODUCTION (1st YEAR to Vth YEAR)						74060	242675	3,16,735
VI - YEAR	P-Q & A-B	I	45	80.5	4.0	14490	---	64,440
	P-Q & A-B	II	45	70.5	5.0	---	15862.5	
	P-Q & A-B	III	45	60.5	5.0	---	13612.5	
	P-Q & A-B	IV	45	50.5	5.0	---	11362.5	
	P-Q & A-B	V	45	40.5	5.0	---	9112.5	
VII - YEAR	P-Q & A-B	I	59	80.5	4.0	18998	---	63,965.5
	P-Q & A-B	II	54	70.5	5.0	---	19035	
	P-Q & A-B	III	49	60.5	5.0	---	14822.5	
	P-Q & A-B	IV	44	50.5	5.0	---	11110	
VIII - YEAR	R-S & C-D	I	40	59	4.0	9440	---	60,647.5
	P-Q & A-B	V	39	40.5	5.0	---	7897.5	
	P-Q & A-B	VI	284	30.5	5.0	---	43310	
IX - YEAR	R-S & C-D	I	43.5	59	4.0	10266	---	48,413.5
	R-S & C-D	II	73.5	49	5.0	---	18007.5	
	R-S & C-D	III	63.5	39	5.0	---	12382.5	
	R-S & C-D	IV	53.5	29	5.0	---	7757.5	
X - YEAR	P-Q & A-B	VII	274	20.5	5.0	---	28085	32,217.5
	R-S & C-D	V	43.5	19	5.0	---	4132.5	
NEXT FIVE YEAR PRODUCTION (Vth YEAR to Xth YEAR)						53194	216490	2,69,684
TOTAL PRODUCTION						1,27,254	4,59,165	5,86,419 Cu.m.

NAME OF THE APPLICANT:
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 KOCHADAI, ARASARADI, MADURAI SOUTH,
 MADURAI DISTRICT - 625 016.

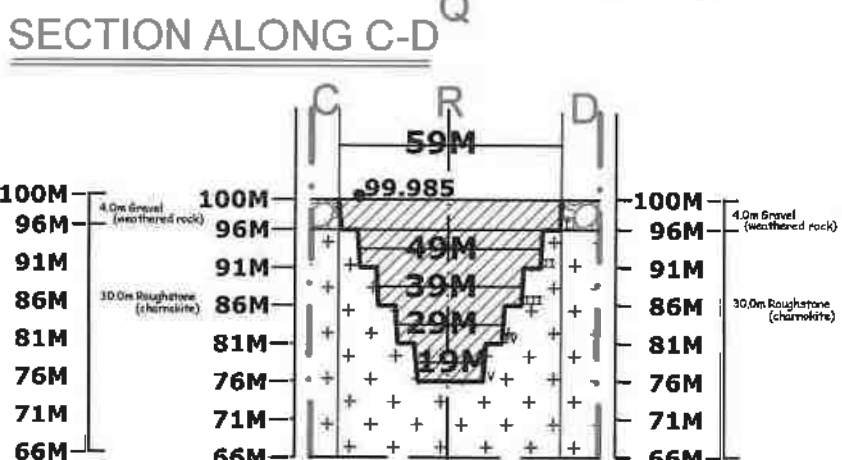
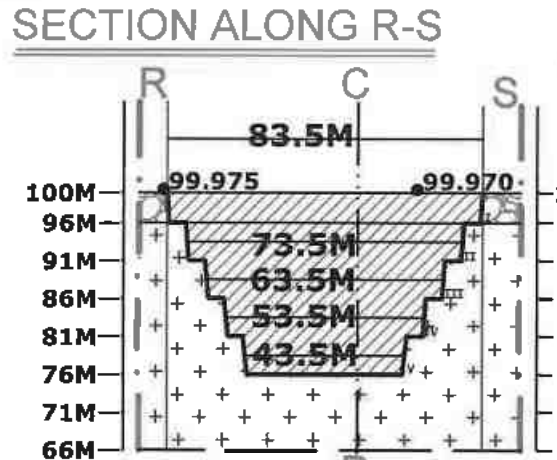
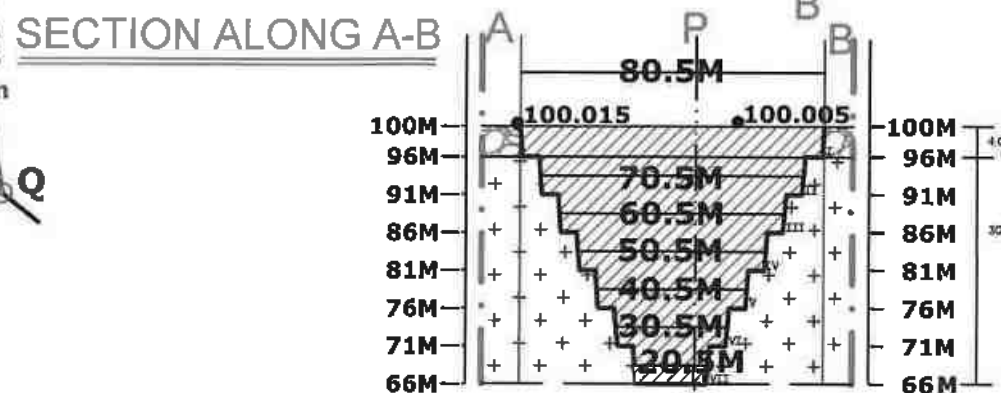
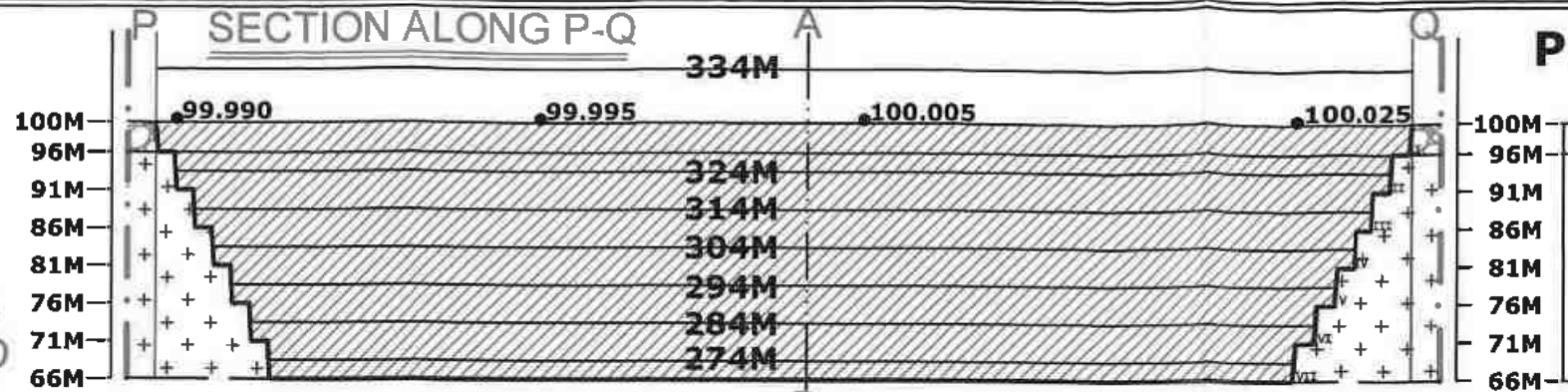
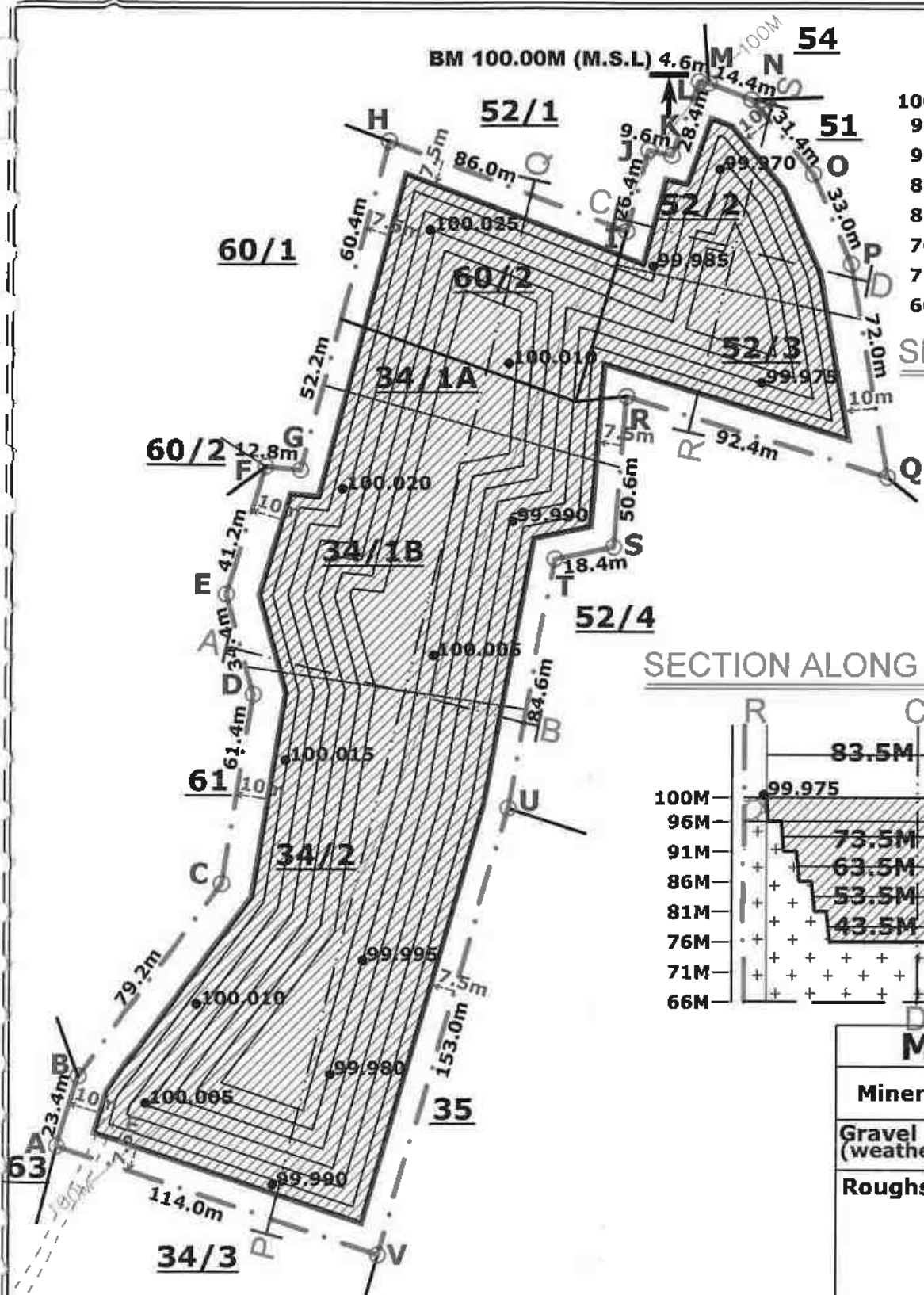
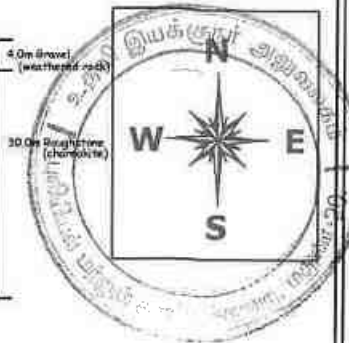
- INDEX:-**
- LEASE APPLIED BOUNDARY
 - SAFETY DISTANCE 7.5M (& 10m from seasonal odai)
 - I - YEAR EXCAVATION
 - II - YEAR EXCAVATION
 - III - YEAR EXCAVATION
 - IV - YEAR EXCAVATION
 - V - YEAR EXCAVATION
 - VI - YEAR EXCAVATION
 - VII - YEAR EXCAVATION
 - VIII - YEAR EXCAVATION
 - IX - YEAR EXCAVATION
 - X - YEAR EXCAVATION

**ROUGHSTONE/JELLY/GRAVEL QUARRY
 LAND USE CUM YEARWISE
 SECTIONS**

SECTION SCALE:- HOR- 1: 2000, VER- 1:1000

ALL PLANS AND SECTIONS ARE PREPARED
 BASED ON THE LEASE MAP AUTHENTICATED
 BY STATE GOVERNMENT.

G. Ravichandran
 G.RAVICHANDRAN, M.Sc., P.G.D.M.E.M.,
 MINING GEOLOGIST
 RQP / MAS / 197 / 2005 / A
 VALID UPTO: 12.12.2025



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 MADURAI DISTRICT - 625 016.

INDEX:-

LEASE APPLIED BOUNDARY	
SAFETY DISTANCE 7.5M (& 10m from seasonal odai)	
BOUNDARY PILLARS	
CONTOURS	
BENCH MARK	
APPROACH ROAD	
LAYOUT OF MINE WORKING	
ULTIMATE PIT SLOPE	

ROUGH STONE & GRAVEL QUARRY
CONCEPTUAL MINING PLAN
SECTIONS PLAN SCALE:- 1: 2000

SECTION SCALE:- HOR- 1: 2000, VER- 1:1000

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MINEABLE RESERVES						VOLUME IN CUM	TOTAL VOLUME IN CUM
Minerals	Section	Bench	Length [M]	Width [M]	Depth [M]		
Gravel (weathered rock)	PQ - AB	I	334	80.5	4.0	107548	1,27,254
	RS - CD	I	83.5	59	4.0	19706	
Roughstone	PQ - AB	II	324	70.5	5.0	114210	
	PQ - AB	III	314	60.5	5.0	94985	
	PQ - AB	IV	304	50.5	5.0	76760	
	PQ - AB	V	294	40.5	5.0	59535	
	PQ - AB	VI	284	30.5	5.0	43310	
	PQ - AB	VII	274	20.5	5.0	28085	
	RS - CD	II	73.5	49	5.0	18007.5	
RS - CD	III	63.5	39	5.0	12382.5		
RS - CD	IV	53.5	29	5.0	7757.5		
RS - CD	V	43.5	19	5.0	4132.5	4,59,165	
TOTAL MINEABLE RESERVES						5,86,419 Cu.m.	

S.R. Muthupandi

LOCATION FOR PROPOSED QUARRY

DISTRICT : MADURAI
TALUK : VADIPATTI

VILLAGE : VIRALIPATTI
S.F.Nos. : 34/1A,1B,2, 52/2,3 & 60/2
EXTENT : 4-20.00 HECTARE.



PLATE NO. VII

NO OTHER QUARRIES AROUND 500M RADIUS

ROUGH STONE & GRAVEL QUARRY

SATILITE IMAGERY & EMP PLAN

SCALE:- 1: 5000

**ALL PLANS AND SECTIONS ARE PREPARED
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MINING GEOLOGIST
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MADURAI DISTRICT - 625 016.

INDEX:-

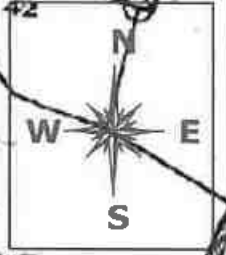
- LEASE APPLIED BOUNDARY
- SAFETY DISTANCE - 7.5m
(& 10m from seasonal odai)
- APPROACH ROAD
- 300M RADIUS LINE
- 500M RADIUS LINE

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(Handwritten signature)

LOCATION FOR PROPOSED QUARRY

DISTRICT : MADURAI
TALUK : VADIPATTI
VILLAGE : VIRALIPATTI
S.F.Nos. : 34/1A,1B,2,3 & 60/2
EXTENT : 4-20.00 HECTARE



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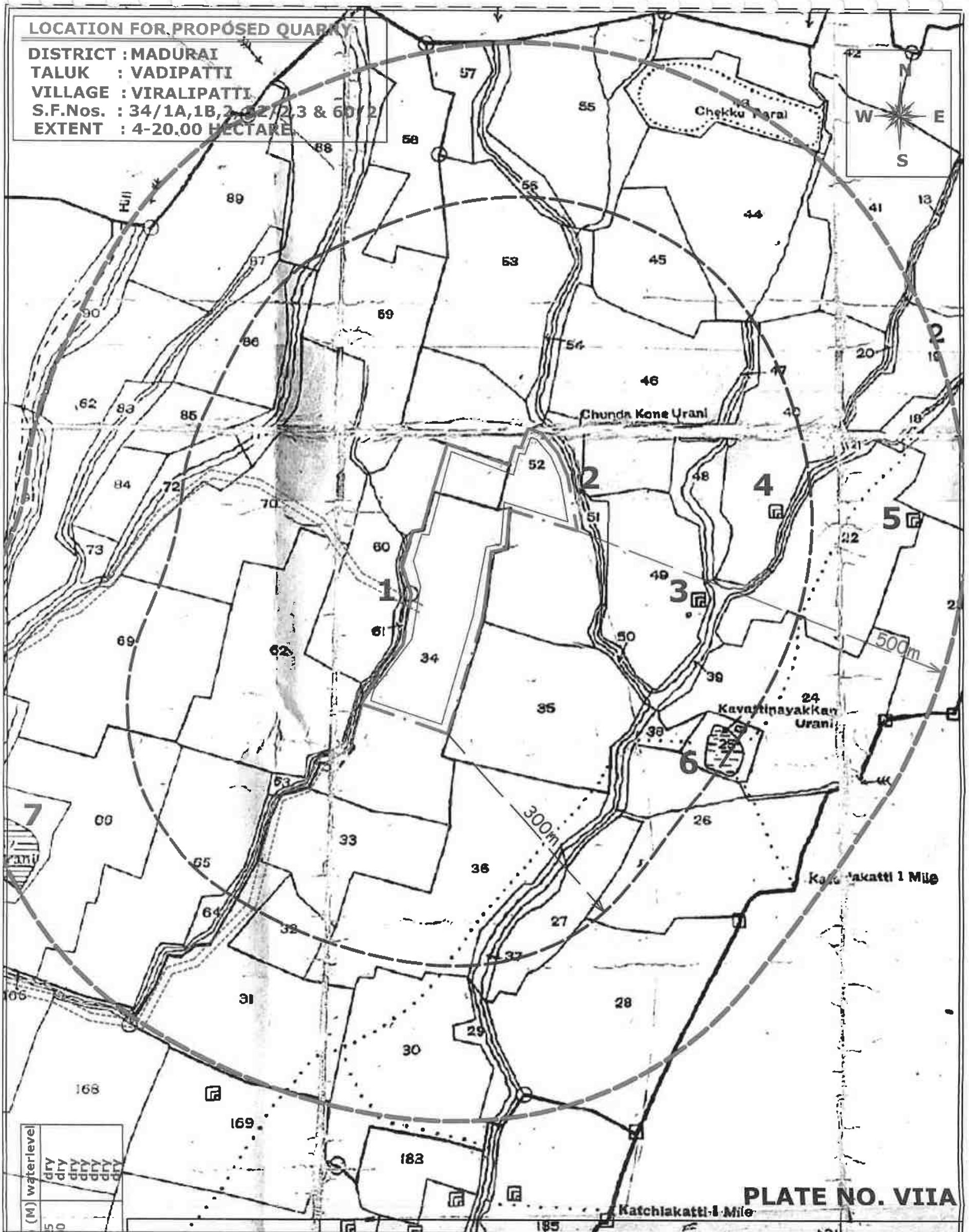


PLATE NO. VIIA

BASE LINE DATA FOR WATER BODIES			
SL.No.	Details	Direction	Distance(M) Depth (M) water level
1	seasonodai	west	10 0.25 dry
2	seasonodai	east	10 0.30 dry
3	well	east	220 14 dry
4	well	east	280 13 dry
5	well	east	430 15 dry
6	urani	east	290 1.5 dry
7	urani	south	490 1.2 dry

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INDEX:- Static water table in winter - 40M
in summer - 45M

- AREA APPLIED FOR QUARRY LEASE
- APPROACH ROAD
- 300M RADIUS LINE
(No well, No historical monuments)
- 500M RADIUS LINE
(No quarries, No habitations, No temples, No school with in 500m & No other structures like culverts, head works, bridges etc.)

NO OTHER QUARRIES AROUND 500M RADIUS

ROUGH STONE & GRAVEL QUARRY

VILLAGE MAP
showing environmental features

SCALE:- 1: 5000

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AFFORESTATION PROGRAMME

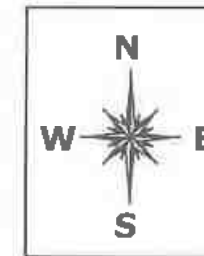
PLANTATION	TYPE	No of TREES	SPACING	AREA (Ha)	SURVIVAL
I - YEAR	NEEM	20	6m x 6m	0-07.2	80%
II - YEAR	NEEM	20	6m x 6m	0-07.2	80%
III - YEAR	NEEM	20	6m x 6m	0-07.2	80%
IV - YEAR	NEEM	20	6m x 6m	0-07.2	80%
V - YEAR	NEEM	20	6m x 6m	0-07.2	80%
VI - YEAR	NEEM	20	6m x 6m	0-07.2	80%
VII - YEAR	NEEM	20	6m x 6m	0-07.2	80%
VIII - YEAR	NEEM	20	6m x 6m	0-07.2	80%
IX - YEAR	NEEM	20	6m x 6m	0-07.2	80%
X - YEAR	NEEM	20	6m x 6m	0-07.2	80%
TOTAL PLANTATION		200		0-72.0Ha	

PRESENT MINING LAND USE PLANNING
(BREAKUP ALONG WITH GREENBELT ETC.:

SL.No	LAND USE CATEGORY	AT THE END OF LIFE OF MINE
1.	Mining / Excavation	3-18.0 hectare
2.	Storage of Top soil	0-00.0 hectare
3.	Sorting and mineral Dressing yard	0-00.0 hectare
4.	Infrastructure & Road	0-08.0 hectare
5.	Afforestation (greenbelt & plantation)	0-72.0 hectare
6.	Water reservoir	3-18.0 hectare (after closure of mine)
7.	Undisturbed area	0-10.0 hectare
8.	Fencing	0-12.0 hectare
TOTAL		4-20.0 Hectare.

ULTIMATE PIT SIZE

SECTION	LENGTH[M]	WIDTH[M]	DEPTH[M]
PQ - AB	334	80.5	34.0
RS - CD	83.5	59	24.0



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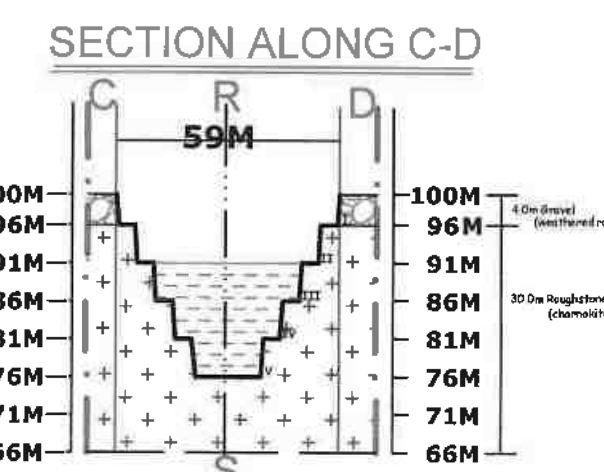
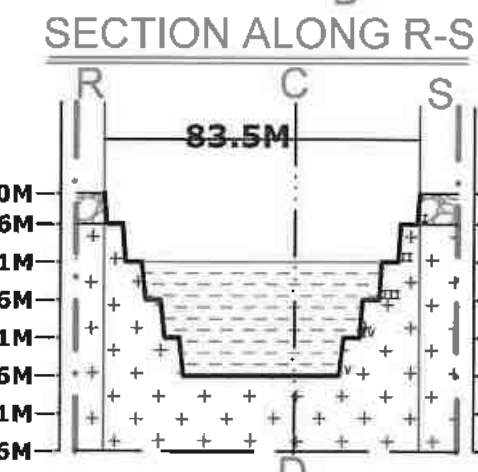
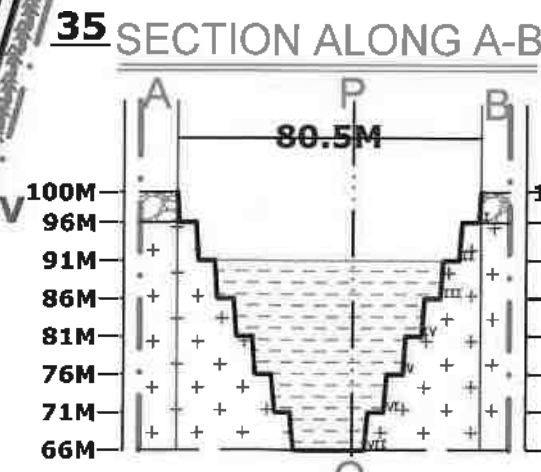
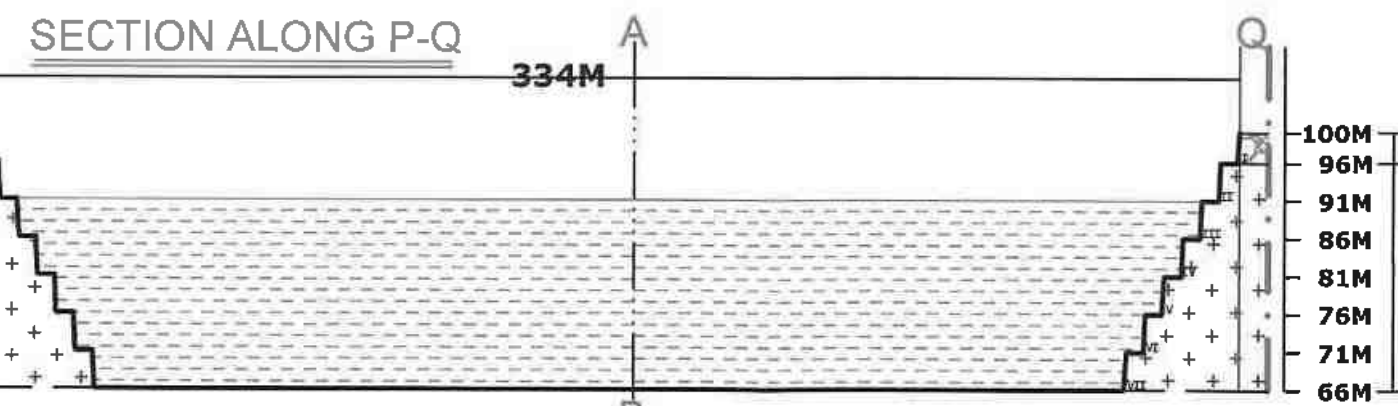
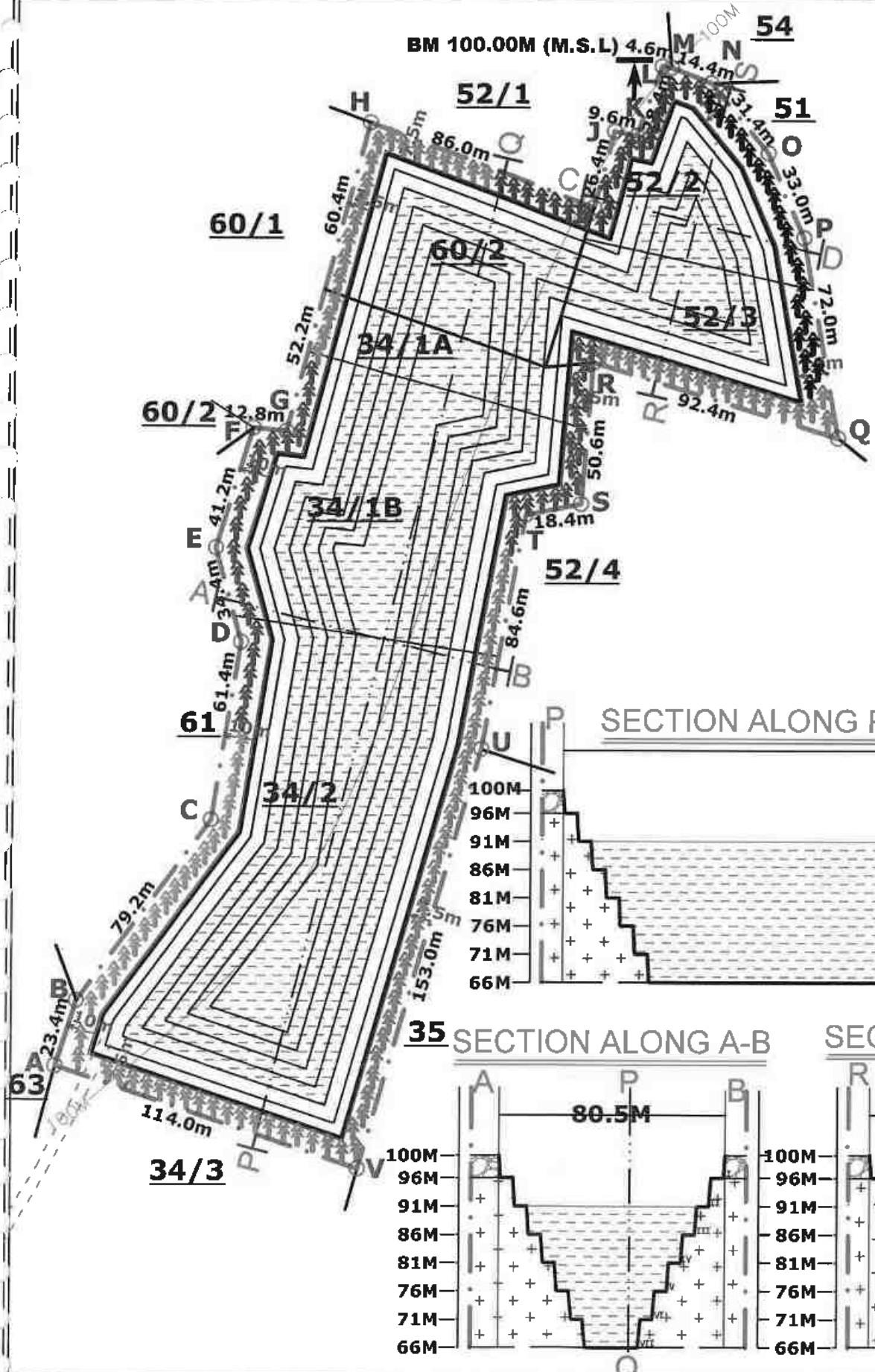
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- BOUNDARY PILLARS
- APPROACH ROAD
- BENCH MARK
- CONTOURS
- LAYOUT OF MINE WORKING (FUTURE WATER RESERVOIR)

ROUGH STONE & GRAVEL QUARRY
PROGRESSIVE MINE CLOSURE PLAN

SCALE:- 1: 2000

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S. R. MUTHUPANDI