

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT OF

ROUGH STONE AND GRAVEL QUARRY

(As per EIA Notification, 2006 dated 14.09.2006 and amendments)

Category-B1 (Cluster) – Minor Mineral - Patta Land

Project Proponents	
PP1-Thiru. B. Karthik No. 3/563, Kuttai Thottam, 63, Velampalayam, Palladam, Tirupur- 641 663	PP2-Thiru. V. P. Ramasamy 2/697-A, Vivekananda Nagar Main st, S.R. Nagar South, Mangalam Road, Tirupur – 641 687
Proposed Production	
Geological Resources : 615000m ³ Mineable Reserves : 172820 m ³ Prod. Of Rough Stone: 172820 m ³ Gravel : 22546 m ³ Ultimate Depth – 32 m bgl	Geological Resources: 387721m ³ Mineable Reserves: 95843 m ³ Prod. Of Rough Stone: 95843 m ³ Ultimate Depth – 42 m bgl
Project Location	
Extent : 2.05.0 Ha S. F. No: 277, Iduvai Village, Tirupur South Taluk, Tirupur District	Extent : 1.59.0 Ha S. F. No: 286/1 (P), Iduvai Village, Tirupur South Taluk, Tirupur District

Terms of References

i) Lr. No. TO25B0108TN5138034N Dated: 15.06.2025-PP1

ii) Lr. No. TO25B0108TN5952127N Dated: 30.05.2025-PP2

Laboratory

ABM Enviro Lab

NIPBASS PLAZA, 4/77-L, Narasothipatti, Salem-636004

NABL Certificate No: **TC-15822/** Valid up to: **01.04.2029**

Baseline Monitoring Period: March, 2025 to May, 2025

EIA Consultant

UIN: ABM/MIN/EIA/2025-26/002/R1/2025

AADHI BOOMI MINING & ENVIRO TECH (P) LTD

(NABET Accredited EIA Organization)

NABET Certificate No: NABET/EIA/24-27/RA 0365/Valid Up to: 23.10.2027

3/216, K.S.V. Nagar, Narasothipatti, Alagapuram (PO),

Salem – 636004, Tamil Nadu

Email: abmenvirotech@gmail.com

Mob: 98427 29655

2025



From

Date:

1) Mr. B. Karthik

No. 3/563, Kuttai Thottam,
63, Velampalayam, Palladam,
Tirupur- 641 663
9791609929

2) Mr. V.P. Ramasamy,

2/697-A, Vivekananda Nagar Main Street,
S.R. Nagar South, Mangalam Road,
Tirupur – 641 687.
9965561626

To

The District Environmental Engineer (DEE),
Tamil Nadu Pollution Control Board (TNPCB),
Kumaran Complex, Kumaran Road,
Tirupur North, Tirupur District- 641 601.

Sub: Submission of Draft Environmental Impact Assessment (EIA) Report as per EIA Notification, 2006 dated 14.09.2006 and amendments for two rough stone and gravel quarry located within cluster area over an extent of 11.53.0 Hectares in Iduvai Village, Tirupur South Taluk, Tirupur District, Tamil Nadu –reg.

1. Lr. No. TO25B0108TN5138034N Dated: 15.06.2025 for PP1
2. Lr. No. TO25B0108TN5952127N Dated: 30.05.2025 for PP2

Dear Sir,

With reference to the above-mentioned subject, we herewith submit the hard copy of Draft Environmental Impact Assessment Report as per the Terms of Reference for your kind perusal. The site details of our quarries are given below.

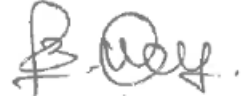
1. **Name:** Mr. B. Karthik
Area: 2.05.0 Ha (Patta Land)
S. F. No: 277
Village: Iduvai
Taluk: Tirupur South
District: Tirupur.
2. **Name:** Mr. V. P. Ramasamy
Area: 1.59.0 Ha (Patta Land)
S.F. No: 286/1 (P)
Village: Iduvai
Taluk: Tirupur South
District: Tirupur.

As our lease area comes within the cluster area of 11.53.0 Ha, we request you to conduct Public hearing for our two existing rough stone and gravel quarry as per MOEF&CC SO 141 (E) dated 15.01.2016-Appendix XI.

Thanking you,

Yours faithfully,

1. **B. KARTHIK** –



2. **V.P. RAMASAMY** -



Encl:

Draft EIA Report and Soft copy of the Report.

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Undertaking by Project Proponents

Thiru. B. KARTHIK, as **Project Proponent**, hereby gives this undertaking to the effect that the conditions laid down in Terms of Reference vide Lr. No. TO25B0108TN5138034N Dated: 15.06.2025 for our Rough Stone and Gravel Quarry, in SF. No.277, over an extent of 2.05.0 Ha of Iduvai village, Tirupur South Taluk, Tirupur District, Tamil Nadu, have been compiled with, and the data submitted and the information presented in this report are true to the best of my knowledge.



Signature and seal of the Project Proponent

Place : Salem

Date :

Thiru. V.P. RAMASAMY, as **Project Proponent**, hereby gives this undertaking to the effect that the conditions laid down in Terms of Reference vide Lr. No. TO25B0108TN5952127N Dated: 30.05.2025 for our Rough Stone and Gravel Quarry, in S. F. No. 286/1 (P) over an extent of 1.59.0 Ha of Iduvai village, Tirupur South Taluk, Tirupur District, Tamil Nadu have been compiled with, and the data submitted and the information presented in this report are true to the best of my knowledge.



Signature and seal of the Project Proponent

Place : Salem

Date :

AADHI BOOMI MINING AND ENVIRO TECH (P) Ltd.

(NABET/QCI Accredited Organisation – 'A' Category)

ISO: 9001:2015 Certified Company

Call: 0427-2444297, +91 9842729655, +91 9443290855

Email: suriyakumarsemban@gmail.com, admin@abmenvirotec.com,Website: www.abmenvirotec.com**Declaration by the Head of the accredited consultant organization/authorized person**

I, **S. Suriyakumar**, CEO of Aadhi Boomi Mining & Enviro Tech (P) Ltd, hereby confirm that the Draft EIA Report has been prepared as per the conditions laid down in Terms of Reference vide i) Lr. No. TO25B0108TN5138034N Dated: 15.06.2025 for PP1 and ii) Lr. No. TO25B0108TN5952127N Dated: 30.05.2025 for PP2 for conducting Public Hearing and obtaining Environment Clearance from SEIAA/SEAC, Tamil Nadu for Rough Stone and Gravel Quarry of **Thiru. B. KARTHIK** and **Thiru. V. P. RAMASAMY**, located in Iduvai village, Tirupur South Taluk, Tirupur District, Tamil Nadu.

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

Name : **Dr. S. Suriyakumar**

Signature : For Aadhi Boomi Mining And Enviro Tech (P) Ltd.,

S. Suriyakumar
Director



Designation : **CEO**

Name of the EIA Consultant Organization: **Aadhi Boomi Mining & Enviro Tech Private Limited.**

QCI/NABET Accredited Consultant, Certificate No: **NABET/EIA/24-27/RA 0365.**

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LIST OF ABBREVIATIONS AND ACRONYMS

AQI	-	Air Quality Index
AAQ	-	Ambient Air Quality
CPCB	-	Central Pollution Control Board
CAPEXIL	-	Chemical and Allied Export Promotion Council of India
CSR	-	Corporate Social Responsibility
DB	-	Decibel
DGM	-	Department of Geology and Mining
DGPS	-	Differential Global Positioning System
EC	-	Environment Clearance
EMP	-	Environment Management Plan
EIA	-	Environmental Impact Assessment
EMC	-	Environmental Management Cell
LEQ	-	Equivalent Noise Level
GOVT	-	Government of Tamil Nadu
GLC	-	Ground Level Concentration
HSE	-	Health, Safety and Environment
HA	-	Hectare
KLD	-	Kilo Liters Per -Day
KM	-	Kilo Meter
MOEF&CC	-	Ministry of Environment Forest and Climate Change
NH	-	National Highway
PH	-	Public Hearing
R&R	-	Rehabilitation & Resettlement
SEIS	-	Seismograph
SEIAA	-	State Environmental Impact Assessment Authority
SEAC	-	State Expert Appraisal Committee
SH	-	State Highway
SPM	-	Suspended Particulate Matter
TNPCB	-	Tamil Nadu Pollution Control Board
TOR	-	Terms of Reference
WQI	-	Water Quality Index

ToR Compliance of Thiru. B. Karthik, Rough Stone and Gravel Quarry-PP1

1. SEAC Conditions - Site Specific

S. No	Terms of Reference	Compliance
1	Since the habitation is located 279.20 meters west of the proposed site, the project proponent shall maintain a safety distance of 300 meters from the proposed site as well as safety distance of 50 meters from the odai and submit the modified mining plan accordingly	Agreed.
2	A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal: (i) Copy of the agreement forming CMC. (ii) The Organization chart of the Committee with defining the role of the members (iii) The 'Standard Operating Procedures' (SoP) executing the planned activities.	Agreed. The Cluster Management Committee will be formed as per SEIAA guidance. After forming CMC, the all the members will implement environment management plan effectively. Effective plan has been given in Chapter – 4 The CMC will form Environmental Policy to practice sustainable mining in a scientific and systematic manner. The same shall be displayed within the cluster area. The affidavit stating that in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 will be attached in Final EIA report
3	The PP shall ensure the installation of CCTV at the proposed quarry site and ensure its inclusion during the EIA presentation.	The PP has been installed the CCTV at lease area the photos attached in the final EIA report.

SEAC STANDARD CONDITIONS

1	In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following: (i) Original pit dimension (ii) Quantity achieved Vs EC Approved Quantity (iii) Balance Quantity as per Mineable Reserve calculated. (iv) Mined out Depth as on date Vs EC Permitted depth (v) Details of illegal/illicit mining (vi) Violation in the quarry during the past working.	It is fresh Lease.

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	(vii) Quantity of material mined out outside the mine lease area (viii) Condition of Safety zone/benches (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.	
2	Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.	The letter regarding approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake, pond, tank within 300m radius has been obtained from VAO. Refer Annexure – IX.
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 shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc., with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.	The details of nearest habitation are given in table 2.3 in chapter 2. Refer Page 18.
4.	The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the water bodies like lake, water tanks, etc are located within 1 km of the proposed quarry.	The hydro geology study has been conducted within the study area of project site. Refer pages 82 in chapter 3. The details of water bodies in the study area are given chapter 2. Refer table 2.2 in page 16.
5.	The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.	The baseline study on Ecology and Biodiversity are given detail in Chapter 3. The impact on ecology and biodiversity including soil flora & vegetation around the project site is mentioned in Chapter 4.
6.	The 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.	Not applicable. The mining area does not involve any forest land. Refer table 2.3 in page 18 and 19.
7.	In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of	It is fresh quarry.

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	the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.	
8.	However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.	Agreed.
9.	The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.	As it is rough stone quarry, blasting will be carried out to remove blocks from the parent rock by forming crack. Adequate Blast shield or blast mats will be provided wherever necessary for fly rock protection during blasting, thus to prevent the accident on the nearest farms.
10.	The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.	The drilling and blasting pattern for the proposed quarry is mentioned in Chapter 2. Refer Page No. 31 and 32.
11.	The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.	The drone survey will be conducted for this project. The video and photographs will be attached in final EIA report.
12.	If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,	It is fresh lease.
13.	What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?	It is fresh lease.
14.	Quantity of minerals mined out. ➤ Highest production achieved in any one year ➤ Detail of approved depth of mining. ➤ Actual depth of the mining achieved earlier.	It is fresh lease.

	➤ Name of the person already mined in that leases area. ➤ If EC and CTO already obtained, the copy of the same shall be submitted. ➤ Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.	
15.	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)	The Toposheet showing location of the lease area is attached in Chapter 1. Refer fig. no 1.2 in Page No.7. The geology and geomorphology of the 10km radius of proposed area is given in chapter 2. Refer fig 2.10 in page 28. The land use/land cover image is given chapter 3. Refer page 130.
16.	The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,	The drone video, fencing and green belt development along the periphery is done. The photographs will be attached in the EIA Report.
17.	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.	The drone video, fencing and green belt development along the periphery is done. The photographs will be attached in the EIA Report.
18.	The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.	The details of reserves, production capacity and methodology are given in chapter – 2. The impacts on surrounding environment due to mining activity are given in chapter 4.
19.	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 the 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.	The employment potential of proposed project is given in table 2.16 in chapter 2. Page No. 53.
20.	The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds,	The hydro geology study has been conducted within the study area of project site. Refer in Chapter 3. The details of water bodies in the study area are given chapter 2. Refer page 18 and 19.

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	etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.	The depth of water table identified by Geo resistivity survey is 68-72m bgl whereas the proposed depth of mining is 32m bgl. Therefore, the mining activity will not intersect ground water table. Refer page 82 in chapter-3.
21.	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 for the environmental and ecological parameters were collected. Refer chapter 3.
22	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 anticipated cumulative impact on various environments such as air, water, soil and noise etc., due to proposed mining activity are given in chapter 4 with appropriate mitigation measures. The environmental management plan is given in chapter- 10.
23.	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	The studies on rain water harvesting is given in chapter 7. Refer pages 189.
24.	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/land covers of 10km radius of proposed mining lease area are given in chapter 3. Refer fig 3.29 in page 130.
25.	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.	Not applicable. All waste and rejects shall be dumped within the lease area of 2.05.0 Ha of B. Karthik
26.	Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance	No. There is no boundary of critically polluted area found within 10km radius proposed mining lease area.

	certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.	
27.	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	At the end of mining, the quarried-out pit will be used for storing rain water which will enhance agricultural activity around the lease area. The rain harvesting plan is given detail in chapter 7. Refer pages 189.
28.	Impact on local transport infrastructure due to the Project should be indicated	No. The existing roads are available to withstand the traffic generated due to proposed project. Refer fig 2.6 in page 20 of chapter 2.
29.	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.	Only trees such as Neem trees, coconut trees, palm trees, Pungamin tree, Guava tree, Teak tree are found within 300m radius.
30.	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	The mine closure plan for the proposed project is included in the EIA report. Refer fig 2.14 of chapter 2.
31	As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.	Agreed. The EIA coordinator will educate the local students on the importance of preserving local flora and fauna.
32.	The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner	Agreed. In consultation with the DFO, State Agriculture University, the green belt will be made around the boundary of lease area to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated.
33.	Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly 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	Agreed. Taller/one year old Saplings will be planted as per the advice of local forest authority's/botanist/ Horticulturist with regard to site specific choices.

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	manner	
34.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	The Disaster management Plan has been prepared and included in the EIA report of chapter 7. Refer page 186.
35.	A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	Risk Assessment and management Plan has been prepared and included in the EIA report. Refer clause 7.1 in page 186 of Chapter 7.
36.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	An occupational Health impact of the Project has been anticipated and the appropriate mitigation measures are given in Chapter 4 of EIA report. Refer page 176.
37.	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Yes, it is given in EIA report in chapter -4.
38.	The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	The study on Socio-economic for the proposed project is mentioned in clause 3.10 of chapter 3. Refer page 110 of EIA report.
39.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.	Not applicable.
40.	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.	The benefits of the proposed project are given detail in chapter 8. Refer pages 193.
41.	If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall	It is fresh Lease.

	duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCCB.	
42.	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	The EMP for the proposed project is mentioned in Chapter 10 along with EMP cost. The affidavit stating to abide the EMP for the entire life of mine will be attached in the EIA report.
43.	Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.	Agreed.

3. SEIAA Specific Conditions

1.	The Authority noted that the subject was placed in the 565th Meeting of SEAC-II held on 15.05.2025. After detailed discussions, the Authority accepts the recommendation of SEAC-II and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 1,72,820 m ³ of rough stone and 22,546 m ³ of gravel up to the depth of 32m BGL as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-II & normal conditions & the conditions mentioned in Annexure of this minutes.	Agreed.

SEIAA Standard Conditions

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.	Agreed. The Cluster Management Committee will be formed as per SEAC guidance.
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.,	Agreed. After forming CMC, the all the members will implement environment management plan effectively. Effective plan has been given in chapter – 4.
3.	The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.	Agreed. The List of members of the committee formed will be submitted to AD/Mines before the commencing the quarry activity.

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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.	Certified Blaster will be engaged for blasting having adequate knowledge in Environmental safety aspects. Plan will be included in the EIA report. The usage of haul roads by the individual quarry is attached in EIA report. Refer fig 2.6 in page 20 of chapter 2.
5.	The committee shall deliberate on risk & emergency management plan, fire safety & evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.	Risk Management is elaborated in chapter 7 of the EIA report.
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 in the EIA Report.	Agreed. The CMC will form Environmental Policy to practice sustainable mining in a scientific and systematic manner. The same shall be displayed within the cluster area.
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.	The conceptual plan for the quarry lease area 2.05.0 Ha is attached in draft EIA report. Refer fig No 2.16 in page No 51 of Chapter 2. After forming CMC, the restoration strategy of individual quarry will be submitted to DD Mines, Tirupur.
8.	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity.	Occupational safety and Health care of the workers are included in Chapter – 4 in draft EIA report.

Agriculture & Agro-Biodiversity

9.	Impact on surrounding agricultural fields around the proposed mining Area.	The impact on surrounding agricultural fields is given in chapter 4. Refer Clause 4.14 in page no. 178.
10.	Impact on soil flora & vegetation around the project site.	The impact on ecology and biodiversity including soil flora & vegetation around the project site is mentioned in Chapter 4. Refer Page No.167.
11.	Details of type of vegetation including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP.	Only few shrubs are present within the lease area. It will be cleared before the commencement of quarry activity. The PP has planned to plant 30 tree sapling per annum along the boundary of mining lease area.
12.	The Environmental Impact Assessment should study the agro-biodiversity, agroforestry, horti-	The impact on ecology and biodiversity including the soil micro flora, fauna and soil seed banks

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	cultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem	around the project site is mentioned in Chapter 4. Refer Page No.167.
13	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	At the end of mining, the quarried-out pit will be used as water storage pond which improves the agricultural activity in the buffer zone. Refer Page No 189 in Chapter 7. The afforestation plan for five years is given in Chapter 4. Refer Table No 4.31 in Page No.174.
14.	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	Anticipated impact on Agriculture, Horticulture and livestock is given Chapter 4. Refer Clause 4.14.2 in Page No 178.

Forests

15	The project proponent shall detail study on impact of mining on Reserve forests and free ranging wildlife	There are No reserve forests located within 25km radius of the project site. There are no wildlife sanctuaries within 10km radius. Refer Table 2.3 in Page No 18 of Chapter 2. The impact on reserve forest and wild life sanctuary is given in Chapter 4.
16.	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	There is no endangered species found within 10km radius study area.
17.	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection	There are no trees present within the lease area. As the mining activity is carried out only within the lease area, the impacts on trees present in buffer zone will be negligible.
18.	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.	There are no protected areas, National Parks, Corridors and Wildlife pathways within 10km radius of the project site. There is no reserve forest located within 10km radius. The impact on reserve forest is given in Chapter 4. Refer Clause 4.10 in page No 167.

Water Environment

19.	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	The hydro geology study has been conducted within the study area of project site. Refer Page No 82 in Chapter 3. The details of water bodies in the study area are given chapter 2. Refer page no 18. The depth of water table identified by Geo resistivity survey is 68-72m bgl whereas the proposed depth of mining is 32m bgl. Therefore,

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	may be provided, covering the entire mine lease period.	the mining activity will not intersect ground water table. The schematic diagram is given in chapter 4. Refer Page No 162.
20.	Erosion Control measures.	To control the erosion, the tree sapling will be planted along the mining lease boundary. Garland drainage will be developed around the dump to control the washout of dump due to hydrostatic pressure.
21.	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	The impact of mining on the nearby villages and water bodies are given detail in chapter 4.
22.	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	The detailed study of impact on fish habitation and food WEB/ food chain in the water body and reservoir is given in Chapter 4. Refer Table 4.30, Page No 170.
23.	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	The detailed impact studies are given in Chapter 4.
24.	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.	The study and the impact on aquatic plants and animals in water bodies are mentioned in Chapter 4. Refer Clause 4.10 in Page No 167. There are no caves, heritage site, and archaeological site found within 10km radius of project site.
25.	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	The impact study on soil health and erosion is given in Clause 4.7 in Chapter 4. Refer Page no 166. The soil physical, chemical components and microbial components are given in Chapter 3.
26.	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The impact study on surface water bodies and agricultural land is given in Chapter 4.
27.	The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including environmental stress. c) Sediment geochemistry in the surface streams.	NA
Energy		
28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.	The mitigation measure for air pollution and noise pollution is given in chapter 4.

Climate Change		
29.	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	The carbon emission due to proposed mining activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 152.
30.	The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features	The carbon emission due to proposed mining activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 152.
31.	Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.	The GHGs emission due to proposed mining activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 152.
Mine Closure Plan		
32.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued is given in Chapter 2, pg. No. 50 and 51.
EMP		
33.	Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs	Detailed environmental management plan is given in Chapter 10, pg. No. 199.
34.	The Environmental Impact Assessment should hold detailed study on EMP with budget for green belt development and mine closure plan including disaster management plan.	The environmental management plan is given chapter 10. The cost for green belt development is mentioned in Table 10.2 in Chapter 10. Refer Page No 204. Budget for mine closure plan is given in Table 10.3 in Page No 204 of Chapter 10. The disaster management plan is given in Chapter 7. Refer page no 186.
Risk Assessment		
35.	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	Disaster management plan is given in Chapter 7, pg. No. 186.
Disaster Management Plan		
36.	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	Details are furnished in Table 7.1 in chapter 7, pg. No. 186.

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	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		
37.	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.	The letter regarding approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake, pond, tank within 300m radius has been obtained from VAO. Refer Annexure- IX.
38.	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.	Draft EIA is been prepared for conducting public hearing. The points raised in PH and funds allocated will be included in Final EIA report.
39.	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.	The study on pollution due to plastic its ecological risk is mentioned in Chapter 7. Refer Clause 7.5 in Page no 192.

Standard Terms of Reference for (Mining of minerals) and 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	The EIA/EMP report have been prepared for peak capacity (0.44 MTPA) operation in mining plan under 2.05.0 Ha.
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 was granted in the name of project proponent. B. Karthik. Roc.No.58/Kanimam/2023, dated 05.07.2024.
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	Contents in all documents are synchronizing with one another in terms of mine lease area, production levels, waste generation, its management and mining technology. The mining plan was approved by the Deputy Director, Geology and Mining, Roc.No.58/Kanimam/2023,

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		dated 05.07.2024.
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)	The study area lies between Northern Latitude of 11°03'52.61" N to 11°03'58.68" N and eastern longitude to 77°16'52.50" E to 77°16'58.19" E. The area is marked in the survey of India Topo sheet No. 58 E/08. Land Use / Land Cover map of the study area (core and buffer zone) has been prepared on the basis of Satellite imagery using RS & GIS Technique & the same has been incorporated in Fig No: 3.29 of Chapter 3 (Refer Pg. No: 130). Geology & Geomorphology of the mine is given in chapter 3 of page no. 139.
5.	Information should be provided in Survey of India Toposheet 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	Survey of India Toposheet No. 58 E/08 1:50,000 scale indicating physical and surface features 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 is given in Fig No: 1.2, 1.3, 2.10 and Refer pages 6, 8, 28 respectively.
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	The land proposed for mining activities is given in Table No.2.9 of Pg. No. 35 in Chapter 2.
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 Thiru. B. Karthik is very much conscious of implementing Environment management plan with systematic mining. The proponent will submit and compliance the EC conditions within stipulated time.
8.	Issues relating to Mine Safety, including	Issues relating to mine safety pertaining to failure

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	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	of Pit slope for open cast mining is described in Table 7.1, Refer Pg. No. 186. Safety for blasting is given in Clause 4.5 (Chapter 4) Pg. No.159.
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	The Study area of the proposed mining project comprises of 10 km zone around the mining Lease boundary has been prepared. Refer fig No. 1.2 - Pg. No. 7. Data like reserves, waste generation up to life of mine (at the end of the 5 th year) have been incorporated in Chapter 2 of the Draft EIA report.
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 pre operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given	10 km radius map of the Study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements, other existing mines/industrial activity and other ecological features are shown in Fig No. 3.29 of Chapter 3, Pg. No. 130. Land use plan of the mine lease area is given in Table No.2.9 of Pg. No. 35.
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 dump proposed for this quarry.
12.	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to 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 State Expert Appraisal Committees	The quarry area does not involve forest land and hence there is no requirement of clearance certificate from Forest Department. Refer Table No.2.3, Pg. No. 18 respectively.
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	The quarry area does not involve forest land and hence there is no requirement of clearance certificate from Forest Department.

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	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	Not Applicable
15.	The vegetation in the RF / PF areas in the study area, with necessary details, should be given	There is no reserve forest found in the study area of around 10 km Radius.
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	Eco biodiversity (EB) study has been done for the project which details the impact on surrounding wildlife and mitigation measures are discussed and given in Chapter-4.
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	There is no reserve forest or social forest and wild life sanctuaries found around 10km radius. It is a Patta land.
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	Details of Flora and Fauna found in the study area are given in the clause 3.9 (Pg. No 94).
19.	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the	The project site is neither falling under 'Aravalli range' nor it is located in proximity to area

	Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered	declared as Critically Polluted Area.
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. The mining area is located 145 km from Arabian sea (SW). Hence, the project doesn't attract the C.R.Z. Notification, 2011.
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	The mining project does not involve any kind of displacement of the population since the mining will be concentrated only in the quarry area. The impact of mining activity on the population will be insignificant. Hence, Rehabilitation of settlements is not anticipated under this project as it will not be required. (Refer Clause 7.3 Pg. No. 188). The Socio-Economic study detailed in Clause 3.10 of Chapter 3, (Pg. No:110 of the Draft EIA 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	Pre monsoon season monitoring data on Air quality for a period of three months and Water quality, and Noise level, Soil and Flora & Fauna in core and buffer zones are detailed in Chapter 3.

	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	The detail on air quality status predicted is detailed in Clause 4.1 of Chapter 4, Pg. No. 130-140. Wind Rose Pattern is shown in Fig. 3.1, (Pg. No: 59) of Chapter 3.
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	The water requirement for the Project is 3.5 KLD. Chapter 2, table no 2.17 (Pg. No: 53). Water Balance chart in clause 4.6 of chapter 4 & Fig No: 4.4 (Pg. No. 161).
25.	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided	Thiru P. Viswanathan requires water for drinking and for water spraying, dust suppression and plantation. Water for drinking will be utilized from the certified supplier of water vendor. Water for dust control shall be taken from the existing bore wells.
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	The project does not consume any process water except for drinking, dust suppression & plantation. Plantation is proposed, which will increase the water holding capacity & help in recharging of ground water. The storm water collection pond will be used for rain water harvesting post operationally. Refer Chapter – 7.
27.	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided	The impacts of the project on the water quality are assessed and necessary safeguard measures will be provided. (Refer Clause 4.6 of Chapter 4, Pg. No: 161).
28.	Based on actual monitored data, it may clearly be shown whether working will intersect	The mining operation will be 41m Below Ground Level. The ground water table is 58-62 m below

	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 State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished	the ground level and therefore mine working as proposed on higher level will not affect water regime. Hence there will not be any intersect of mining operation with ground water table. Refer Fig 4.5 in Chapter 4 page no 162. A detailed Hydro Geological Study has been carried out and furnished in Chapter 3, Pg. No: 82.
29.	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out	There is no stream crossing inside the mine lease area and no need for modification / diversion.
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 ground water table is 68-72 m below the ground level and therefore mine working as proposed on higher level will not affect water regime. Hence there will not be any intersect of mining operation with ground water table. Refer Fig 4.5 in Chapter 4.
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	Phase-wise plan of plantation and Compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the name of the species is detailed in Table 4.31. Refer pg. No. 174.
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	The mining activities will be carried out through the existing roadways during leisure hours only, with no increase in the existing traffic pattern. (Refer Fig No 2.6 Page No 20 in Chapter 2).

	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	Onsite shelter and facilities like temporary shed will be provided to the mine workers. Refer chapter 2. The workers in the mines will be provided rest shed, first aid centre, ambulance facility. The hazardous protecting equipment also will be provided to the employees such as helmet, ear muff, mask etc. (Refer Table 10.1 of Chapter 10 refer page 199).
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	Post-Mining (Conceptual) Land Use with Environment Management has been prepared. (Fig 2.16, Pg. No. 51 Chapter 2).
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	Occupational Health impacts of the Project will be anticipated and the proposed preventive measures are detailed in EIA the report. (Refer Clause 4.13 of Chapter 4, Pg. No: 176).
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	All control measure for air emission, noise control, and waste management will be taken as per norms. Hence there will not be any impact on population. (Refer Chapter 4 & Pg. No: 151).
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	Details of community welfare activities proposed for the local community, along with proposed budget have been incorporated in EIA Report (Refer Clause 8.1 of Chapter 8, Pg. No: 193).
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	Environmental Management Plan for the existing mining project has been prepared and incorporated in Chapter 10 (Pg.No.198).

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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	Draft EIA report is prepared for Public Hearing only. Public consultation will be included in Final EIA report.
40.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given	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	Total Cost of the Project (capital cost and recurring cost) is Rs. 59.69 Lakhs. The cost towards EMP is Rs. 3.80 Lakhs. (Refer Clause 2.14.2 Pg. No: 55).
42.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report	A detailed Risk and Disaster Management Plan has been prepared and detailed in clause 7.2 of Chapter 7. (Pg. No: 185).
32.	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	If the Project is implemented, mining activity will help in improving environmental, social, and economic and employment potential directly and indirectly in the study area. Refer Chapter 8 of, Pg. No: 193.
44.	Besides the above, the below mentioned general points are also to be followed: - a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) 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. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA. II(I) dated 4th August, 2009, which are available on the website of this	Yes, all documents are properly referenced with index and continuous page numbering. All lab analysis using NABL laboratories only the lab report annexed in the Annexure- XVII.

Ministry, should be followed. g) 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. h) 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. i) 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	

ToR Compliance of Thiru. V. P. Ramasamy, Rough Stone and Gravel Quarry-PP2

1. SEAC Conditions - Site Specific

S. No	Terms of Reference	Compliance
1	As per the MoEF&CC Office Memorandum F.No. IA3-22/10/2022-IA-III[E177258] dated 08.06.2022, the proponent shall furnish the CCR along with the Action Taken Report for any instances of non-compliance.	Under Process. PP once obtained Certified compliance Report from MoEF&CC, Chennai. If any CCR Non-compliance action taken report submitted to MoEF&CC office and TNPCB. In attached the final EIA report.
2	The PP shall submit the registered land consent document, as the Patta includes another individual, Mrs. Dhanalakshmi.	Under Process.
3	The PP shall clarify the note in the Chitta/Patta and A-Register documents indicating that the proposed land is classified as 'Odai'. The PP is required to provide a detailed explanation along with supporting documents in this regard.	Agreed.
4	A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal: (i) Copy of the agreement forming CMC. (ii) The Organisation chart of the Committee with defining the role of the members (iii) The 'Standard Operating Procedures' (SoP) executing the planned activities.	Agreed. The Cluster Management Committee will be formed as per SEIAA guidance. After forming CMC, the all the members will implement environment management plan effectively. Effective plan has been given in Chapter – 4 The CMC will form Environmental Policy to practice sustainable mining in a scientific and systematic manner. The same shall be displayed within the cluster area. The affidavit stating that in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 will be attached in Final EIA report
5	The PP shall ensure the installation of CCTV at the proposed quarry site and ensure its inclusion during the EIA presentation.	Already install the CCTV cameras in the lease area.
2.	SEAC STANDARD CONDITIONS	
1	In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:	It is under process. Once the PP obtained letter from AD/DD Geology and Mining Department, Tirupur District it will be submitted to

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	(i) Original pit dimension (ii) Quantity achieved Vs EC Approved Quantity (iii) Balance Quantity as per Mineable Reserve calculated. (iv) Mined out Depth as on date Vs EC Permitted depth (v) Details of illegal/illicit mining (vi) Violation in the quarry during the past working. (vii) Quantity of material mined out outside the mine lease area (viii) Condition of Safety zone/benches (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.	SEAC/SEIAA.
2	Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.	The letter regarding approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake, pond, tank within 300m radius has been obtained from VAO. Refer Annexure- IX
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 shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.	The details of nearest habitation are given in table 2.3 in chapter 2. Refer Page 18.
4.	The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the water bodies like lake, water tanks, etc are located within 1 km of the proposed quarry.	The hydro geology study has been conducted within the study area of project site. Refer pages 82 in chapter 3. The details of water bodies in the study area are given chapter 2. Refer table 2.2 in page 16.
5.	The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.	The baseline study on Ecology and Biodiversity are given detail in Chapter 3. The impact on ecology and biodiversity including soil flora & vegetation around the project site is mentioned in Chapter 4.
6.	The 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	Not applicable. The mining area does not involve any forest land. Refer table 2.3 in page 18 and 19.

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	proposed site.	
7.	In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions -CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.	The action plan for realignment of bench signed by Asst. Director of Geology and Mining will be attached in the final EIA report.
8.	However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.	This is existing quarry.
9.	The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.	As it is rough stone quarry, blasting will be carried out to remove blocks from the parent rock by forming crack. Adequate Blast shield or blast mats will be provided wherever necessary for fly rock protection during blasting, thus to prevent the accident on the nearest farms.
10.	The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.	The drilling and blasting pattern for the proposed quarry is mentioned in Chapter 2. Refer Page No. 31 and 32.
11.	The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.	The drone survey will be conducted for this project. The video and photographs will be attached in final EIA report.
12.	If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,	Under Process.

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13.	What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?	The project proponent stop the permit before expire of the lease deed.
14.	Quantity of minerals mined out. · Highest production achieved in any one year · Detail of approved depth of mining. · Actual depth of the mining achieved earlier. · Name of the person already mined in that leases area. · If EC and CTO already obtained, the copy of the same shall be submitted. · Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.	- 42m bgl V.P. RAMSAMY Refer Annexure-XIX -
15.	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)	The Toposheet showing location of the lease area is attached in Chapter 1. Refer fig. no 1.2 in Page No.7. The geology and geomorphology of the 10km radius of proposed area is given in chapter 2. Refer fig 2.10 in page 28. The land use/land cover image is given chapter 3. Refer page 130.
16.	The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,	The drone video, fencing and green belt development along the periphery is done. The photographs will be attached in the EIA Report
17.	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.	The drone video, fencing and green belt development along the periphery is done. The photographs will be attached in the EIA Report
18.	The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.	The details of reserves, production capacity and methodology are given in chapter – 2. The impacts on surrounding environment due to mining activity are given in chapter 4.
19.	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 the Mines Act'1952 and the MMR, 1961 for carrying	The employment potential of proposed project is given in table 2.15 in chapter 2. Page No. 52.

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	out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.	
20.	The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.	The hydro geology study has been conducted within the study area of project site. Refer in Chapter 3. The details of water bodies in the study area are given chapter 2. Refer page 18 and 19. The depth of water table identified by Geo resistivity survey is 68-73m bgl whereas the proposed depth of mining is 42m bgl. Therefore, the mining activity will not intersect ground water table.
21.	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 for the environmental and ecological parameters were collected. Refer chapter 3.
22.	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 anticipated cumulative impact on various environments such as air, water, soil and noise etc., due to proposed mining activity are given in chapter 4 with appropriate mitigation measures. The environmental management plan is given in chapter- 10.
23.	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	The studies on rain water harvesting is given in chapter 7. Refer pages 189.
24.	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/land covers of 10km radius of proposed mining lease area are given in chapter 3. Refer fig 3.29 in page 130.
25.	Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as	Not applicable. All waste and rejects shall be dumped within the lease area of 1.59.0 Ha of V.P.

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	extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.	Ramamsay.
26.	Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.	No. There is no boundary of critically polluted area found within 10km radius proposed mining lease area.
27.	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	At the end of mining, the quarried-out pit will be used for storing rain water which will enhance agricultural activity around the lease area. The rain harvesting plan is given detail in chapter 7. Refer pages 189.
28.	Impact on local transport infrastructure due to the Project should be indicated	No. The existing roads are available to withstand the traffic generated due to proposed project. Refer fig 2.6 in page 20 of chapter 2.
29.	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.	Only trees such as Neem trees, coconut trees, palm trees, Pungamin tree, Guava tree, Teak tree are found within 500m radius
30.	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	The mine closure plan for the proposed project is included in the EIA report. Refer fig 2.11 of chapter 2.
31	As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.	Agreed. The EIA coordinator will educate the local students on the importance of preserving local flora and fauna.
32.	The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner	Agreed. In consultation with the DFO, State Agriculture University, the green belt will be made around the boundary of lease area to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated
33.	Taller/one year old Saplings raised in appropriate	Agreed. Taller/one year old Saplings will be

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	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	planted as per the advice of local forest authority's/botanist/ Horticulturist with regard to site specific choices.
34.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	The Disaster management Plan has been prepared and included in the EIA report of chapter 7. Refer page 186.
35.	A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	Risk Assessment and management Plan has been prepared and included in the EIA report. Refer clause 7.2 in page 186 of Chapter 7.
36.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	An occupational Health impact of the Project has been anticipated and the appropriate mitigation measures are given in Chapter 4 of EIA report. Refer page 176.
37.	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Yes, it is given in EIA report in chapter -4.
38.	The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	The study on Socio-economic for the proposed project is mentioned in clause 3.10 of chapter 3. Refer page 110 of EIA report.
39.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.	Not applicable.
40.	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic,	The benefits of the proposed project are given detail in chapter 8. Refer pages 193.

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	employment potential, etc.	
41.	If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions 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.	Under Process. PP once obtained Certified compliance Report from MoEF&CC, Chennai. If any CCR Non-compliance action taken report submitted to MoEF&CC office and TNPCB. In attached the final EIA report.
42.	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	The EMP for the proposed project is mentioned in Chapter 10 along with EMP cost. The affidavit stating to abide the EMP for the entire life of mine will be attached in the EIA report.
43.	Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.	Agreed.

3. SEIAA Specific Conditions)

<u>1.</u>	The Authority noted that the subject was placed in the 556th Meeting of SEAC-II held on 25.04.2025. After detailed discussions, the Authority accepts the recommendation of SEAC-II and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 95,843 m ³ of rough stone up to the depth of 42m BGL as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-II & normal conditions & the conditions mentioned below.	Agreed.

SEIAA Standard Conditions

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.	Agreed. The Cluster Management Committee will be formed as per SEAC guidance.
2.	The members must coordinate among themselves for the effective implementation of EMP as	Agreed. After forming CMC, the all the members will implement environment

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	committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,	management plan effectively. Effective plan has been given in chapter – 4.
3.	The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.	Agreed. The List of members of the committee formed will be submitted to AD/Mines before the commencing the quarry activity.
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.	Certified Blaster will be engaged for blasting having adequate knowledge in Environmental safety aspects. Plan will be included in the EIA report. The usage of haul roads by the individual quarry is attached in EIA report. Refer fig 2.6 in page 20 of chapter 2.
5.	The committee shall deliberate on risk & emergency management plan, fire safety & evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.	Risk Management is elaborated in chapter 7 of the EIA report.
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 in the EIA Report.	Agreed. The CMC will form Environmental Policy to practice sustainable mining in a scientific and systematic manner. The same shall be displayed within the cluster area.
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.	The conceptual plan for the quarry lease area 1.59.0 Ha is attached in draft EIA report. Refer No 2.16 in page No 51 of Chapter 2. After forming CMC, the restoration strategy of individual quarry will be submitted to DD Mines, Tiruppur.
8.	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity.	Occupational safety and Health care of the workers are included in Chapter – 4 in draft EIA report
Agriculture & Agro-Biodiversity		
9.	Impact on surrounding agricultural fields around the proposed mining Area.	The impact on surrounding agricultural fields is given in chapter 4. Refer Clause 4.14 in page no. 178.
10.	Impact on soil flora & vegetation around the project site.	The impact on ecology and biodiversity including soil flora & vegetation around the project site is mentioned in Chapter 4. Refer Page No.167.
11.	Details of type of vegetation including no. of trees	Only few shrubs are present within the lease area.

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	& shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP.	It will be cleared before the commencement of quarry activity. The PP has planned to plant 30 tree sapling per annum along the boundary of mining lease area.
12.	The Environmental Impact Assessment should study the agro-biodiversity, agroforestry, horticultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem	The impact on ecology and biodiversity including the soil micro flora, fauna and soil seed banks around the project site is mentioned in Chapter 4. Refer Page No.167.
13	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	At the end of mining, the quarried-out pit will be used as water storage pond which improves the agricultural activity in the buffer zone. Refer Page No 189 in Chapter 7. The afforestation plan for five years is given in Chapter 4. Refer Table No 4.32 in Page No.178.
14.	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	Anticipated impact on Agriculture, Horticulture and livestock is given Chapter 4. Refer Clause 4.14.2 in Page No 178.
Forests		
15	The project proponent shall detail study on impact of mining on Reserve forests and free ranging wildlife	There are No reserve forests located within 25km radius of the project site. There are no wildlife sanctuaries within 10km radius. Refer Table 2.3 in Page No 18 of Chapter 2. The impact on reserve forest and wild life sanctuary is given in Chapter 4.
16.	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	There is no endangered species found within 10km radius study area.
17.	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection	There are no trees present within the lease area. As the mining activity is carried out only within the lease area, the impacts on trees present in buffer zone will be negligible.
18.	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.	There are no protected areas, National Parks, Corridors and Wildlife pathways within 10km radius of the project site. There is no reserve forest located within 10km radius. The impact on reserve forest is given in Chapter 4. Refer Clause 4.10 in page No 167.
Water Environment		
19.	Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface	The hydro geology study has been conducted within the study area of project site. Refer Page No 82 in Chapter 3. The details of water bodies in

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	water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby water bodies 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.	the study area are given chapter 2. Refer page no 18. The depth of water table identified by Geo resistivity survey is 68-72m bgl whereas the proposed depth of mining is 42m bgl. Therefore, the mining activity will not intersect ground water table. The schematic diagram is given in chapter 4. Refer Page No 162.
20.	Erosion Control measures.	To control the erosion, the tree sapling will be planted along the mining lease boundary. Garland drainage will be developed around the dump to control the washout of dump due to hydrostatic pressure.
21.	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	The impact of mining on the nearby villages and water bodies are given detail in chapter 4.
22.	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	The detailed study of impact on fish habitation and food WEB/ food chain in the water body and reservoir is given in Chapter 4. Refer Table 4.30, Page No 170.
23.	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	The detailed impact studies are given in Chapter 4.
24.	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.	The study and the impact on aquatic plants and animals in water bodies are mentioned in Chapter 4. Refer Clause 4.10 in Page No 167. There are no caves, heritage site, and archaeological site found within 10km radius of project site.
25.	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	The impact study on soil health and erosion is given in Clause 4.7 in Chapter 4. Refer Page no 166. The soil physical, chemical components and microbial components are given in Chapter 3.
26.	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The impact study on surface water bodies and agricultural land is given in Chapter 4.
27.	The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including environmental stress.	NA

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	c) Sediment geochemistry in the surface streams.	
Energy		
28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.	The mitigation measure for air pollution and noise pollution is given in chapter 4.
Climate Change		
29.	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	The carbon emission due to proposed mining activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 152.
30.	The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features	The carbon emission due to proposed mining activity and its mitigation measures are given in Chapter4. Refer Clause 4.2 in Page No 152.
31.	Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.	The GHGs emission due to proposed mining activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 152.
Mine Closure Plan		
32.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued is given in Chapter 2, pg. No. 50.
EMP		
33.	Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs	Detailed environmental management plan is given in Chapter 10, pg. No. 199.
34	The Environmental Impact Assessment should hold detailed study on EMP with budget for green belt development and mine closure plan including disaster management plan.	The environmental management plan is given chapter 10. The cost for green belt development is mentioned in Table 10.2 in Chapter 10. Refer Page No 204. Budget for mine closure plan is given in Table 10.3 in Page No 204 of Chapter 10. The disaster management plan is given in Chapter 7. Refer page no 186.
Risk Assessment		
35	To furnish risk assessment and management plan	Disaster management plan is given in Chapter 7,

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	including anticipated vulnerabilities during operational and post operational phases of Mining.	pg. No. 186.
Disaster Management Plan		
36	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.	Details are furnished in Table 7.1 in chapter 7, pg. No. 186.
Others		
37.	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.	The letter regarding approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake, pond, tank within 300m radius has been obtained from VAO. Refer Annexure IX.
38.	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.	Draft EIA is been prepared for conducting public hearing. The points raised in PH and funds allocated will be included in Final EIA report.
39.	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.	The study on pollution due to plastic its ecological risk is mentioned in Chapter 7. Refer Clause 7.5 in Page no 192.

Standard Terms of Reference for (Mining of minerals) and 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	The EIA/EMP report have been prepared for peak capacity (0.24 MTPA) operation in mining plan under 1.59.0 Ha.
2.	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine	Precise area communication Letter was granted in the name of project proponent V.P. Ramsamy

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	should be given	R.C. No. 712/Mines/2021, Dated: 05.07.2024
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	Contents in all documents are synchronizing with one another in terms of mine lease area, production levels, waste generation, its management and mining technology. The mining plan was approved by the Assistant Director, Geology and Mining, R. C. No. 712/Mines/2021, Dated: 13.08.2024.
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)	The study area lies between Northern Latitude of 11°03'43.08" N to 11°03'49.31" N and eastern longitude to 77°16'50.81"E to 77 16°54'73."E The area is marked in the survey of India Topo sheet No. 58 E/08. Land Use / Land Cover map of the study area (core and buffer zone) has been prepared on the basis of Satellite imagery using RS & GIS Technique & the same has been incorporated in Fig No: 3.29 of Chapter 3 (Refer Pg. No: 130). Geology & Geomorphology of the mine is given in chapter 3 of page no. 139.
5.	Information should be provided in Survey of India Toposheet 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	Survey of India Toposheet No. 58 E/08 1:50,000 scale indicating physical and surface features 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 is given in Fig No: 1.2, 1.3, 2.10 and Refer pages 6, 8, 28 respectively.
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	The land proposed for mining activities is given in Table No.2.9 of Pg. No. 35 in Chapter 2.
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	The proponent Thiru. V.P.Ramasamy is very much conscious of implementing Environment management plan with systematic mining. The proponent will submit and compliance the EC conditions within stipulated time.

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	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	Issues relating to mine safety pertaining to failure of Pit slope for open cast mining is described in Table 7.1, Refer Pg. No. 186. Safety for blasting is given in Clause 4.5 (Chapter 4) Pg. No.159.
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	The Study area of the proposed mining project comprises of 10 km zone around the mining Lease boundary has been prepared. Refer fig No. 1.2 -Pg. No. 7. Data like reserves, waste generation up to life of mine (at the end of the 5 th year) have been incorporated in Chapter 2 of the Draft EIA report.
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	10 km radius map of the Study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements, other existing mines/industrial activity and other ecological features are shown in Fig No. 3.29 of Chapter 3, Pg. No. 130. Land use plan of the mine lease area is given in Table No.2.9 of Pg. No. 35.
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 dump proposed for this quarry.
12.	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to 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	The quarry area does not involve forest land and hence there is no requirement of clearance certificate from Forest Department. Refer Table No.2.3, Pg. No. 18 respectively.

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	Forest Department to assist the State Expert Appraisal Committees	
13.	Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished	The quarry area does not involve forest land and hence there is no requirement of clearance certificate from Forest Department.
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	There is no reserve forest found in the study area of around 10km Radius.
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	Eco biodiversity (EB) study has been done for the project which details the impact on surrounding wildlife and mitigation measures are discussed and given in Chapter-4.
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	There is no reserve forest or social forest and wild life sanctuaries found around 10km radius. It is a Patta land.
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	Details of Flora and Fauna found in the study area are given in the clause 3.9 (Pg. No 94).

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	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 Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered	The project site is neither falling under 'Aravalli range' nor it is located in proximity to area declared as Critically Polluted Area.
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. The mining area is located 147km from Arabian sea (SW). Hence, the project doesn't attract the C.R.Z. Notification, 2011
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	The mining project does not involve any kind of displacement of the population since the mining will be concentrated only in the quarry area. The impact of mining activity on the population will be insignificant. Hence, Rehabilitation of settlements is not anticipated under this project as it will not be required. (Refer Clause 7.3 Pg. No. 188). The Socio-Economic study detailed in Clause 3.10 of Chapter 3, (Pg. No:110 of the Draft EIA 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	Pre monsoon season monitoring data on Air quality for a period of three months and Water quality, and Noise level, Soil and Flora & Fauna in core and buffer zones are detailed in Chapter 3

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	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	The detail on air quality status predicted is detailed in Clause 4.1 of Chapter 4, Pg. No. 130-140. Wind Rose Pattern is shown in Fig. 3.1, (Pg. No: 59) of Chapter 3.
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	The water requirement for the Project is 3.5 KLD. Chapter 2, table no 2.17 (Pg. No: 53). Water Balance chart in clause 4.6 of chapter 4 & Fig No: 4.4 (Pg. No. 161).
25.	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided	Thiru V.P.Ramasamy requires water for drinking and for water spraying, dust suppression and plantation. Water for drinking will be utilized from the certified supplier of water vendor. Water for dust control shall be taken from the existing bore wells
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	The project does not consume any process water except for drinking, dust suppression & plantation. Plantation is proposed, which will increase the water holding capacity & help in recharging of ground water. The storm water collection pond will be used for rain water

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		harvesting post operationally. Refer Chapter – 7.
27.	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided	The impacts of the project on the water quality are assessed and necessary safeguard measures will be provided. (Refer Clause 4.6 of Chapter 4, Pg. No: 161).
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 State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished	The mining operation will be 41m Below Ground Level. The ground water table is 58-62 m below the ground level and therefore mine working as proposed on higher level will not affect water regime. Hence there will not be any intersect of mining operation with ground water table. Refer Fig 4.5 in Chapter 4 page no 162. A detailed Hydro Geological Study has been carried out and furnished in Chapter 3, Pg. No: 82.
29.	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out	There is no stream crossing inside the mine lease area and no need for modification / diversion.
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 ground water table is 68-72 m below the ground level and therefore mine working as proposed on higher level will not affect water regime. Hence there will not be any intersect of mining operation with ground water table. Refer Fig 4.5 in Chapter 4.
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	Phase-wise plan of plantation and Compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the name of the species is detailed in Table 4.32. Refer pg. No. 174.

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	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	The mining activities will be carried out through the existing roadways during leisure hours only, with no increase in the existing traffic pattern. (Refer Fig No 2.6 Page No 20 in Chapter 2).
33.	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report	Onsite shelter and facilities like temporary shed will be provided to the mine workers. Refer chapter 2. The workers in the mines will be provided rest shed, first aid centre, ambulance facility. The hazardous protecting equipment also will be provided to the employees such as helmet, ear muff, mask etc. (Refer Table 10.1 of Chapter 10 refer page 199).
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	Post-Mining (Conceptual) Land Use with Environment Management has been prepared. (Fig 2.16, Pg. No. 51 Chapter 2).
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	Occupational Health impacts of the Project will be anticipated and the proposed preventive measures are detailed in EIA the report. (Refer Clause 4.13 of Chapter 4, Pg. No: 176).
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	All control measure for air emission, noise control, and waste management will be taken as per norms. Hence there will not be any impact on population. (Refer Chapter 4 & Pg. No: 151).
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	Details of community welfare activities proposed for the local community, along with proposed budget have been incorporated in EIA Report (Refer Clause 8.1 of Chapter 8, Pg. No: 193).

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	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	Environmental Management Plan for the existing mining project has been prepared and incorporated in Chapter 10 (Pg.No.198).
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	Draft EIA report is prepared for Public Hearing only. Public consultation will be included in Final EIA report.
40.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given	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	Total Cost of the Project (capital cost and recurring cost) is Rs. 44.03 Lakhs. The cost towards EMP is Rs. 3.80 Lakhs. (Refer Clause 2.14.2 Pg. No: 55).
42.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report	A detailed Risk and Disaster Management Plan has been prepared and detailed in clause 7.2 of Chapter 7. (Pg. No: 185).
32.	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.,	If the Project is implemented, mining activity will help in improving environmental, social, and economic and employment potential directly and indirectly in the study area. Refer Chapter 8 of, Pg. No: 193.
44.	Besides the above, the below mentioned general points are also to be followed: - a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) 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. d) Where the documents provided are in a language other than English, an English translation should be	Yes, all documents are properly referenced with index and continuous page numbering. All lab analysis using NABL laboratories only the lab report annexed in the Annexure- XVII.

provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA. II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed. g) 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. h) 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. i) 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.

CHAPTER – 1: INTRODUCTION

1.1 Purpose of the Report

The Applicants, Thiru. B. Karthik and Thiru. V.P. Ramasamy has applied for grant of permission for quarrying rough stone and gravel quarry over an extent of 2.05.0 Ha and 1.59.0 Ha in S.F.N: 277 and S.F. No: 286/1 (P) respectively located in Iduvai Village, Tirupur South Taluk, Tirupur District and Tamil Nadu for a period of 10 years and 5 years (From the date of execution).

The Deputy Director, Department of Geology and Mining, Tirupur has directed the applicants, Thiru. B. Karthik and Thiru. V.P. Ramasamy, vide his precise area communication letter Roc. No. 58/Kanimam/2023 dated 05.07.2024 and Roc. No. 712/Kanimam/2021 dated 05.07.2024 obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying lease to rough stone and gravel quarry in Iduvai Village, Tirupur South Taluk, Tirupur District and Tamil Nadu for the period of 10 years and 5 Years (From the date of execution). In continuation, Deputy Director, Department of Geology and Mining, Tirupur has directed the two applicants, Thiru. B. Karthik and Thiru. V.P. Ramasamy to get mining plan is approved vide letter No. 58/Kanimam/2023 dated 13.08.2024 and Roc. No. 712/Kanimam/2021 dated 13.08.2024 and obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying lease to rough Stone & gravel quarry in Iduvai Village, Tirupur South Taluk, Tirupur District and Tamil Nadu for the period of 10 years and 5 years (From the date of execution).

The mining plan for rough stone and gravel quarry of two applicants has been prepared as per the Deputy Director's Precise area communication letter under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying rough stone and gravel and it has been approved by Deputy Director, Department of Geology and Mining, Tirupur.

As per the cluster letter issued by Deputy Director, Department of Geology and Mining, Tirupur vide Rc.No.58/Mines/2023, dated 13.08.2024 for Thiru. B. Karthik (2.05.0 Ha) and vide Rc.No.712/Mines/2021 dated 13.08.2024 for Thiru. V.P. Ramasamy (1.59.0 Ha) the lease area of above said 9 applicants comes in cluster of 500m radius. The total area of cluster is 15.02.0 Ha. The extents of lease area of all individual as per cluster letter are given below.

Proposed Quarries

1. Thiru. B. Karthik – 2.05.0 Ha
2. Thiru. V.P. Ramasamy – 1.59.0 Ha
3. Thiru.K.Eswaran – 1.59.50 Ha

Existing Quarries

1. Thiru. K.Balasubramaniam – 1.40.0 Ha
2. Mrs. B. Radhika – 0.89.0 Ha

Abandoned Quarries

1. Thiru.A.Kandasamy - 1.20.0 Ha
2. Thiru. Silver C. Venkatachalam – 2.29.0 H
3. Thiru. P. E. Thangavel - 2.49.0 Ha
4. Thiru. K. Balasubramaniam - 1.52.0 Ha

As the projects comes under B1(cluster) category, the four applicants made TOR application individually the PARIVESH website for carrying out EIA Studies for obtaining Environmental clearance. The details are given in below table 1.1.

Table No. 1.1: Details on Terms of Reference

S. No	Name of Proponent	ToR Application No	SEAC and SEIAA Meeting No	TOR letter No
1.	B. Karthik	SIA/TN/MIN/529 488/2025 Dated 15.03.2025.	565 th SEAC-II meeting, dated 15.05.2025 and 833 rd SEIAA meeting dated 03.06.2025.	Lr. No: TO25B018TN5138034 N Dated: 15.06.2025
2.	V.P. Ramasamy	SIA/TN/MIN/528 542/2025 dated 10.03.2025	556 th SEAC meeting, dated 25.04.2025 and 828 th SEIAA meeting dated 26.05.2025	Lr. No: TO25B018TN5952127 N Dated: 30.05.2025

In TOR letters, it is mentioned that public hearing needs to be conducted for the proposed rough stone and gravel quarry of two project proponents for obtaining EC. As per MOEF&CC SO 141 (E) dated 15.01.2016-Appendix XI, there shall be one public consultation for entire cluster after which the final Environmental Impact Assessment Report or Environmental Management Plan report for the cluster shall be prepared. Based on the OM

issued by MOEF & CC, the combined Draft EIA/EMP report has been prepared for the two quarries in the cluster of 15.02.0 Ha for conducting public hearing. The points raised in the public hearing and the commitments of the project proponent will be given detail in the final EIA Report which will be submitted to SEAC/SEIAA, TN for obtaining environmental clearance.

1.2. Identification of Project and Project Proponent

Table No. 1.2: Details on Project and Project Proponent

A. Proposed Projects to Conduct Public Hearing	
1. Thiru. B. Karthik	
Particulars	Details
Address of the Project Proponent	Thiru. B. Karthik 3/563, Kuttai Thottam, 63, Velampalayam Palladam Taluk Tirupur District 641663 Mobil No: 9842284083 Email id: karthikgokul999@gmail.com
Lease Area	2.05.0 Ha (Patta Land)
Site Location	S.F. No: 277, Iduvai Village, Tirupur South Taluk, Tirupur District, Tamil Nadu.
Geographical Co-ordinates	Latitude: 11° 03'52.61" N to 11° 03'58.68" N Longitude: 77°16'52.50" E to 77°16'58.19" E.
Toposheet No.	58E/08
Elevation	Elevation of the area is 367m above MSL.
Precise Area Communication	Roc.No.58/Kanimam/2023, dated 05.07.2024
Period of Lease	10 years from the date of execution.
Mining Plan Approval Details	Mining plan approved by DD, Dept of Geology and Mining Vide Roc. No.58/Mines/2023, dated 13.08.2024
AD Cluster letter	Rc. No. 58/Mines/2023, dated 13.08.2024
2. Thiru. V. P. Ramasamy	
Particulars	Details
Address of the Project Proponent	Thiru. V. P. Ramasamy, 2/697-A, Vivkananda Nagar Main Street, S.R. Nagar South, Mangalam Road Tirupur District- 641 687 Mobile No: 9965561626 Email: vprcrusher.office@gmail.com
Lease Area	1.59.0 Ha (Patta Land)

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.00 Ha, Rough Stone and Gravel Quarry, Tirupur District

Site Location	S.F. No: 286/1 (P), Iduvai Village, Tirupur South Taluk, Tirupur District, Tamil Nadu.
Geographical Co-ordinates	Latitude: 11° 03'43.08" N to 11° 03'49.31" N Longitude: 77°16'50.81" E to 77°16'54.73" E.
Toposheet No.	58E/08
Elevation	Elevation of the area is 369m above MSL
Precise Area communication	Rc.No.712/Kanimam/2021 dated 05.07.2024
Period of Lease	5 years from the date of execution.
Mining Plan Approval Details	Mining plan approved by DD, Dept of Geology and Mining Vide Rc.No.712/Mines/2021 dated 13.08.2024
AD Cluster letter	Rc. No. 712/Mines/2021 dated 13.08.2024

Table No. 1.3: Land Particulars

1. Thiru. B. Karthik					
District & State	Taluk	Village	S.F. No.	Area (Ha)	Ownership/ Occupancy
Tirupur & Tamil Nadu	Tirupur South	Iduvai	277	2.05.0 Ha	Patta land
Total				2.05.0 Ha	
2. Thiru. V. P. Ramasamy					
District & State	Taluk	Village	S.F. No.	Area (Ha)	Ownership/ Occupancy
Tirupur & Tamil Nadu	Tirupur South	Iduvai	268/1 (P)	1.59.0 Ha	Patta land
Total				1.59.0 Ha	

1.3. Brief Description of the Project

1.3.1. Nature and Size of the Project

Open cast - Mechanized mining shall be adopted to raise the production in this area and transportation of ore and waste. The excavated Ordinary stone is used for building's basement stones and also used for crushing units and other infrastructure development work in and around the district.

For B. Karthik, rough stone and gravel quarry, Geological resources of rough stone and gravel is estimated as 615000m³ and mineable reserves is estimated at 172820m³ @ 100% up to depth 32m and 22546 m³ of gravel up to the depth of 2m leaving necessary safety distance from the lease boundary. Production Schedule is proposed as 172820m³ @ 100% of rough stone for five years and 22546m³ of Gravel for three years.

For V.P. Ramasamy, rough stone and gravel quarry, Geological resources of rough stone and gravel is estimated as 387721m³ and mineable reserves is estimated at 95843m³ @ 100% up to depth 42m. Production Schedule is proposed as 95843m³ @ 100% of rough stone for five years.

1.3.2. Location of the Project

The proposed sites are accessible from Tirupur. By travelling NH -81 from Coimbatore to Trichy we can reach Tirupur town at the distance of 8 km southwest side and 1.8 km southwest side of Iduvai Village. Survey of India Toposheet No. **58E/08**. The location map is given in fig 1.1. The latitude and longitude of four lease areas are given in below table

Tirupur 7 Km -----> Iduvai 1.8 Km ----> Lease Area

Table No.1.4: Latitude and Longitude of two proposed quarry

S. No	Project Site	Latitude	Longitude
1	B. Karthik – 2.05.0 Ha	11° 03'52.61" N to 11° 03'58.68" N	77°16'52.50" E to 77°16'58.19" E
2	V.P. Viswanathan – 1.59.0 Ha	11° 03'43.08" N to 11° 03'49.31" N	77°16'50.81" E to 77°16'54.73" E

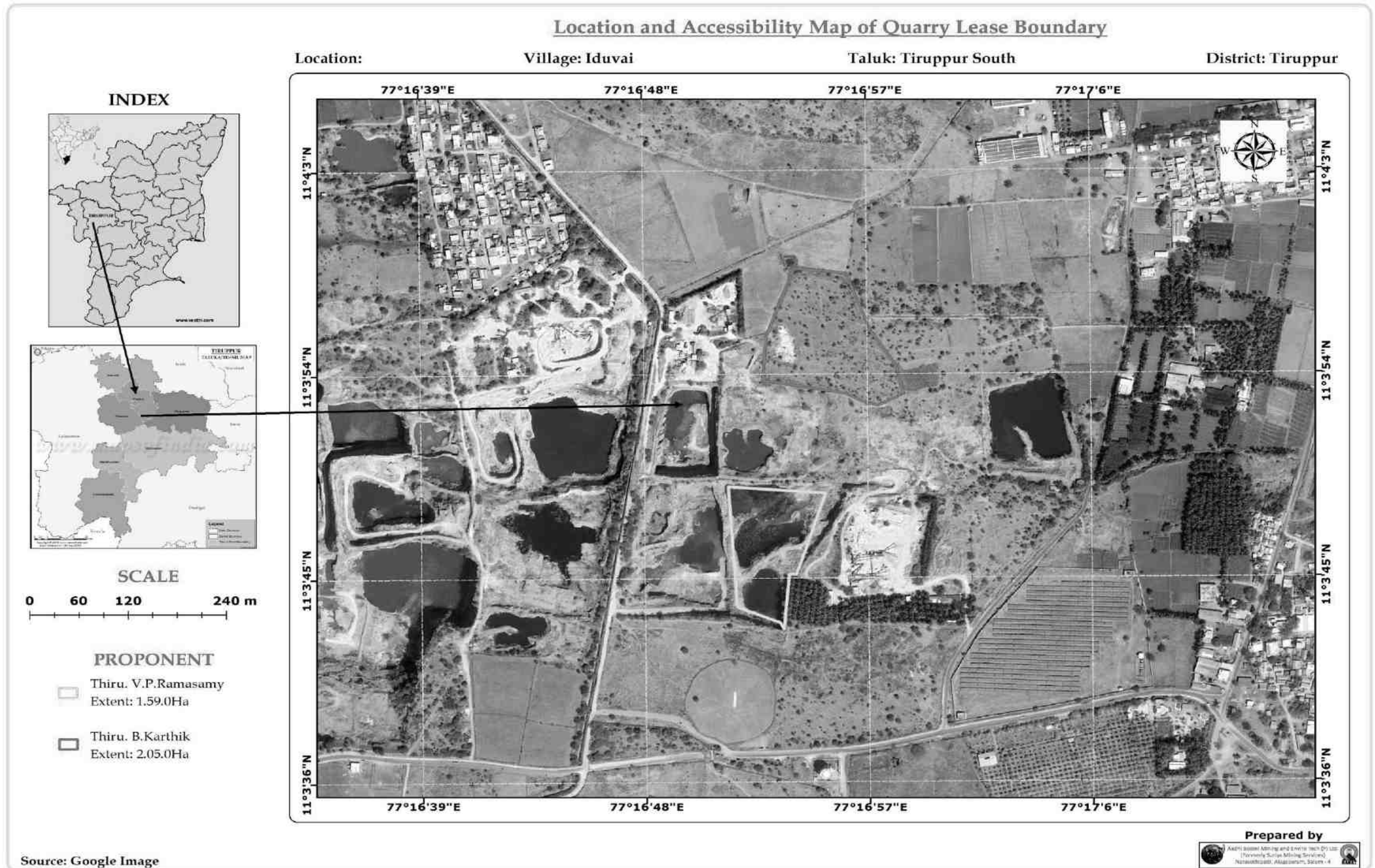


Fig No. 1.1: Showing Location and route map for two proposed rough stone and gravel quarries

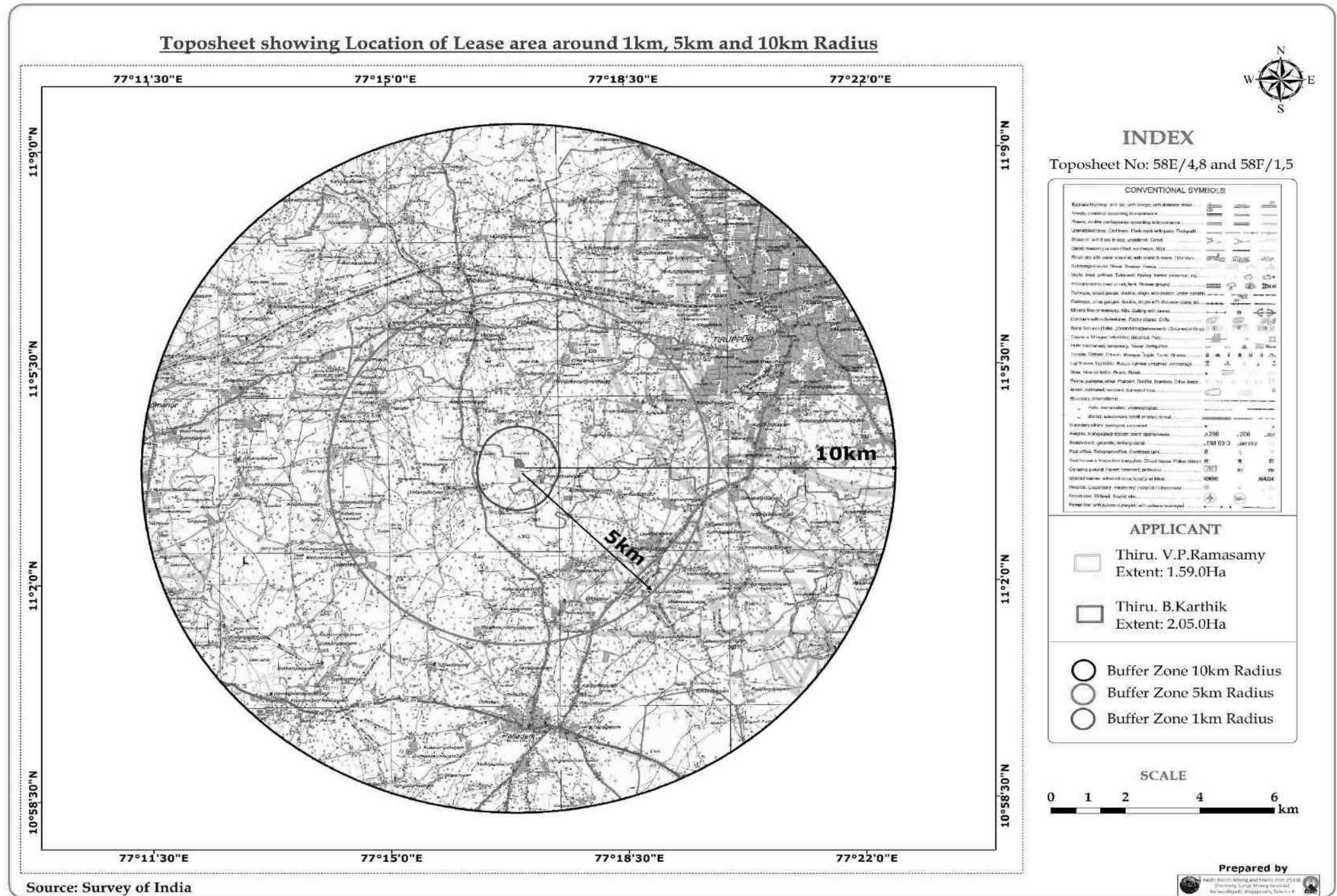


Fig No. 1.2: Toposheet showing Location of the two proposed rough stone and gravel quarries

GIS based buffer of 300/500m radius over the Google Image

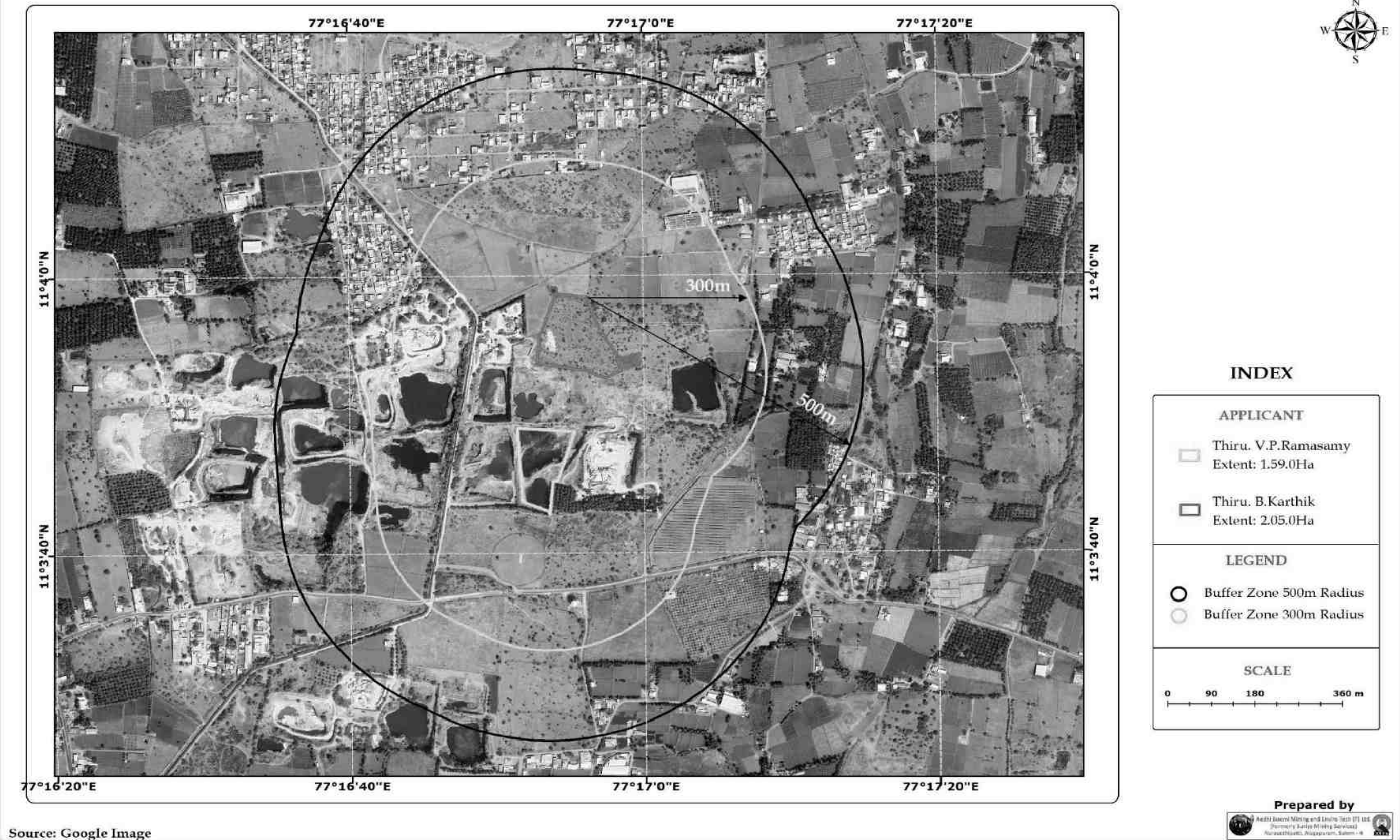


Fig No. 1.3: Google Earth Image showing 300m and 500m radius around two proposed Rough stone and gravel quarries

1.4. Scope of the Project

The proposal for Environment clearance for rough stone and gravel quarry of Thiru. B. Karthik and Thiru. V.P. Ramasamy requires Combined Environmental Impact Assessment (EIA) study to be carried out as per Standard, Specific and additional TOR specified by the SEAC. Based on the documents furnished for TOR, the Committee observed that the project falls under the category B1(Cluster) and schedule 1(a) of the EIA Notification, 2006 as the cluster area is greater than 5 Ha and less than 250 Ha. This is primarily to ascertain the potential impacts of the mining activity on environmental components, prediction and evaluation of environmental impacts to delineate Environment Management Plan.

The EIA/EMP report also includes an independent chapter prepared by an Accredited Consultant. The collection and analysis of air, water and soil sample required for preparation of EIA report data will be done by an Environmental Laboratory duly notified under the Environment (Protection) Act, 1986, accredited by NABET/NABL.

The scope of the study includes a detailed characterization of the environment in an area of 10km radius from the mine lease Area. The EIA covers one season baseline environmental data, as per the standard generic model given by the MoEF&CC, New Delhi.

In order to assess the likely impacts arising out of this project on the surrounding environment and evaluating the quantum of likely negative impacts, if any, from this mine, the proponent has selected Aadhi Boomi Mining and Enviro Tech Pvt. Ltd., Salem as their EIA consultant for this project. ABM prepared an Environmental Impact Assessment (EIA) report and made an effective Environment management Plan (EMP) for various environmental components likely to be affected.

The scope covers all the conditions along with the specific and additional TOR prescribed by SEAC/SEIAA, Tamil Nadu vide

- i) Lr. No: TO25B018TN5138034N Dated: 15.06.2025 for PP1
- ii) Lr. No: TO25B018TN5952127N Dated: 30.05.2025 for PP2

1.5 Methodology of EIA Study

The EIA study includes detailed baseline data generation and characterization of existing status of environment in an area of 10km radius with the project as its centre for various environmental components viz. air, noise, water, land, geo-hydrology, Noise & Vibration, biological and socio-economic components and other parameters of interest. The envisaged scope of EIA is as follows:

- To assess the present status of air, biota, water, land, biological and socio-economic components of environment within 10km radius of study area from the project site.

- To identify and quantify the significant positive and negative impacts due to various mining operation in various components of the environment the Ordinary identification and prediction of impacts
- To identify the impact and description of the impact with quantitative and qualitative data
- To prepare a detailed Environment Management Plan for implementation of mitigate measures
- To suggest a monitoring program to evaluate the effectiveness of mitigate measures
- Post-project environmental quality monitoring program to be followed

The baseline monitoring study has been carried out during the March 2025 to May 2025 for various environmental components so as to assess the anticipated impact on the environment and suggest suitable mitigation measures for likely adverse impacts due to the project. Environmental attributes, source and frequency of monitoring are outlined in table 1.5.

Table No. 1.5: Environment Attributes

S. No	Attributes	Parameters	Source and Frequency
1	Meteorology	Temperature, Wind Speed, Wind Direction, Rain fall, Relative Humidity,	Secondary sources of IMD station, Tirupur. Hourly recorded data for the period of 3 months.
2	Ambient Air Quality	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x	8-hour samples twice in a week for three months at 5 locations.
3	Water Quality	Physical, Chemical and Biological parameters	Grab sampling at 3 locations once during study period.
4	Noise levels	Noise levels in dB(A)	At 5 locations data monitored once in a Month for three months for 24 hours during EIA study.
5	Soil Characteristics	Physical and Chemical parameters	Once at 3 locations during study period
6	Hydrogeology	Drainage area and pattern, nature of streams, aquifer characteristics, recharge and discharge areas	Based on data collected the Ordinary field investigation devices once in a study.
7	Land use	Existing land use for different categories	Based on Survey of India Toposheet and Google Earth imagery
8	Ecology and Biodiversity	Existing terrestrial flora and fauna within 10Km radius	Field observation and utilization of Secondary data.
9	Socio–Economic aspects	Socio–economic and demographic characteristics,	Based on collection of primary data the Ordinary questionnaire analyses and

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
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		worker characteristics	utilization of Secondary data from census records (2001 –2011), statistical hand books, toposheets, health records and relevant official records.
10	Risk assessment and Disaster Management Plan	Identify areas where disaster can occur by fires and explosions and release of toxic substances if any	Based on the findings of risk associated with explosives, landslides, slips and fire/explosion during blasting etc.,

The impacts of the project activities on environmental components can be quantified the EIA studies within the impact zone of the project activities. The results of EIA studies form the basis for the preparation of a viable EMP for mitigation of the adverse impacts.

CHAPTER – 2: PROJECT DESCRIPTION

2.1. Need for the Project

The Applicants, Thiru. B. Karthik and Thiru. V. P. Ramasamy have applied for grant of permission for Rough Stone and gravel quarry in Iduvai Village, Tirupur South Taluk, Tirupur District for the period of five years and ten years under rule 19 of Tamil Nadu Minor Mineral Concession Rules, 1959. The mining plan for Rough stone and gravel quarry of two applicants has been prepared as per the Assistant Director's Precise area communication letter under Rule 41 & 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying Rough stone and gravel and it has been approved by Deputy Director, Department of Geology and Mining, Tiruppur.

Rough stone is one of the important materials for the building construction. The Rough stone is used as both as coarse aggregate and fine aggregate after the proper sizing of stone. The coarse and fine aggregate are essential for preparing concrete which is used in foundation, beam, column, roof slab work of the buildings. The infrastructure is the sign of development of nation. So, it is very need to excavate the rough stone for economic and infrastructure development of our nation.

2.2 Demand – Supply Gap

The coarse and fine aggregate are the basic raw material for the building construction and the road formation. It takes place in all villages, towns, cities and metropolitan cities. There is great demand in availability of rough stone. So, it is necessary to fulfill the demand by starting the proposed rough stone and gravel quarry.

2.3 Location

The area is represented by Survey of India Topo sheet No. 58 E/08. The lease boundary with Geo Co-ordinates is shown in fig 2.1. The latitude and longitude of two lease areas are given in below table 2.1.

Table No. 2.1: Latitude and longitude of two proposed quarry

S. No	Project Site	Latitude	Longitude
1	Thiru. V.P. Ramasamy, 1.59.0 Ha	11°03'43.08" N to 11°03'49.31" N	77°16'50.81" E to 77°16'54.73" E
2	Thiru. B. Karthik, 2.05.0 Ha	11°03'52.61" N to 11°03'58.68" N	77°16'52.50" E to 77°16'58.19" E

Latitude and Longitude of all boundary Pillars of two quarries are given in below table 2.2.

Table No. 2.2: Co-ordinates of two Quarries lease Boundary Pillars

V.P. Ramasamy, Rough Stone and Gravel Quarry		
P. No	Latitude	Longitude
1	11°03'44.00"N	77°16'51.30"E
2	11°03'49.31"N	77°16'50.81"E
3	11°03'49.11"N	77°16'54.73"E
4	11°03'45.52"N	77°16'53.55"E
5	11°03'45.52"N	77°16'53.25"E
6.	11°03'43.08"N	77°16'53.15"E
7.	11°03'43.38"N	77°16'53.05"E
Thiru. B. Karthik, Rough Stone and Gravel Quarry		
P. No	Latitude	Longitude
1	11°03'53.73"N	77°16'52.50"E
2	11°03'55.70"N	77°16'52.66"E
3	11°03'58.68"N	77°16'53.79"E
4	11°03'58.44"N	77°16'55.87"E
5	11°03'55.92"N	77°16'56.84"E
6	11°03'54.35"N	77°16'57.89"E
7	11°03'53.12"N	77°16'58.19"E
8	11°03'52.61"N	77°16'57.13"E
9	11°03'52.81"N	77°16'56.48"E
10	11°03'53.15"N	77°16'55.83"E

- No Trees will be uprooted due to this quarrying operation.
- The existing road from the main road to quarry is in good condition and the same will be maintained and utilized for transportation of rough stone and gravel quarry.
- There will be no Export of this quarrying rough stone

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
 Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

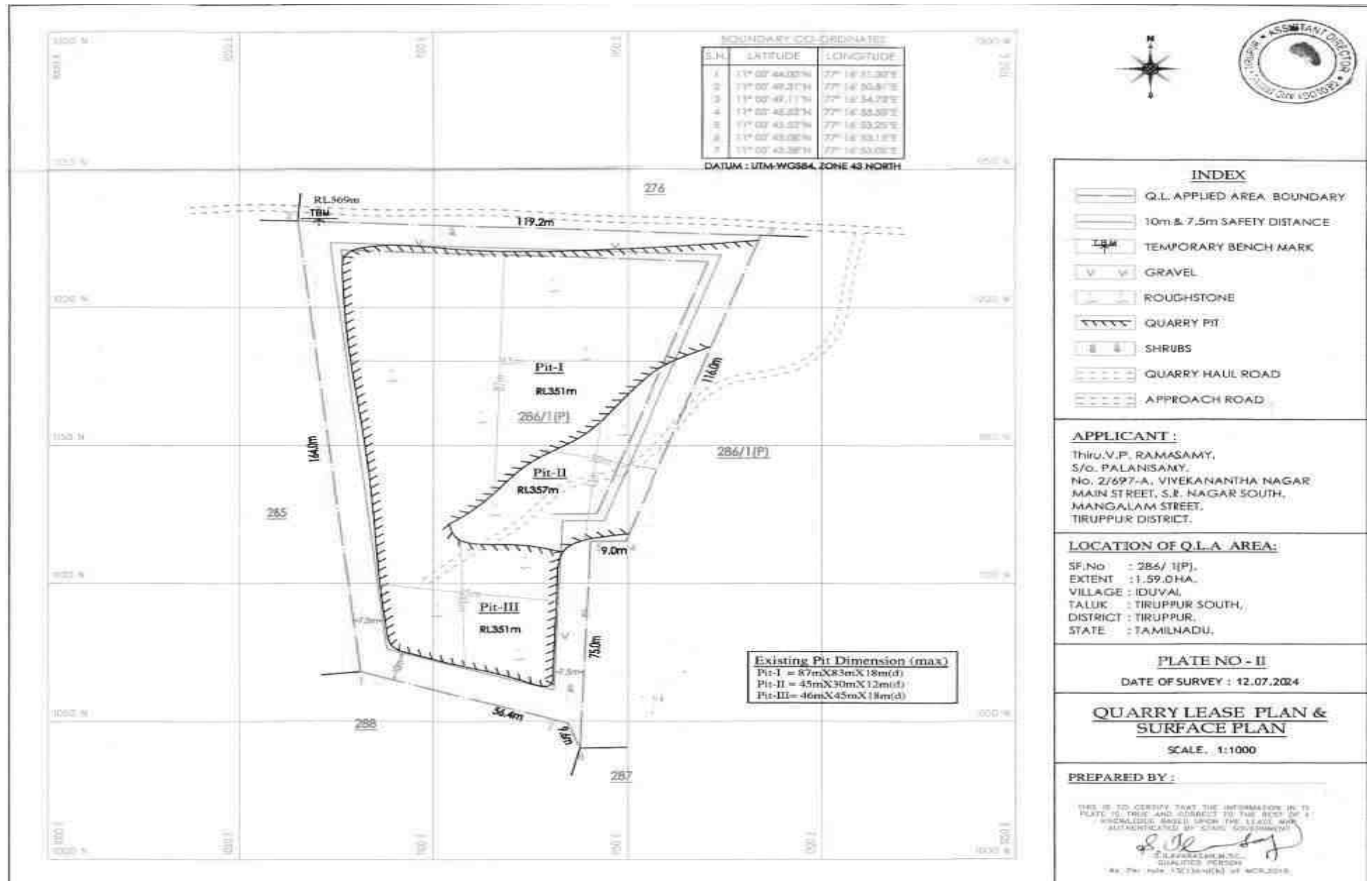


Fig No. 2.1: Lease & surface Plan of V.P. Ramasamy, Rough Stone and Gravel Quarry

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

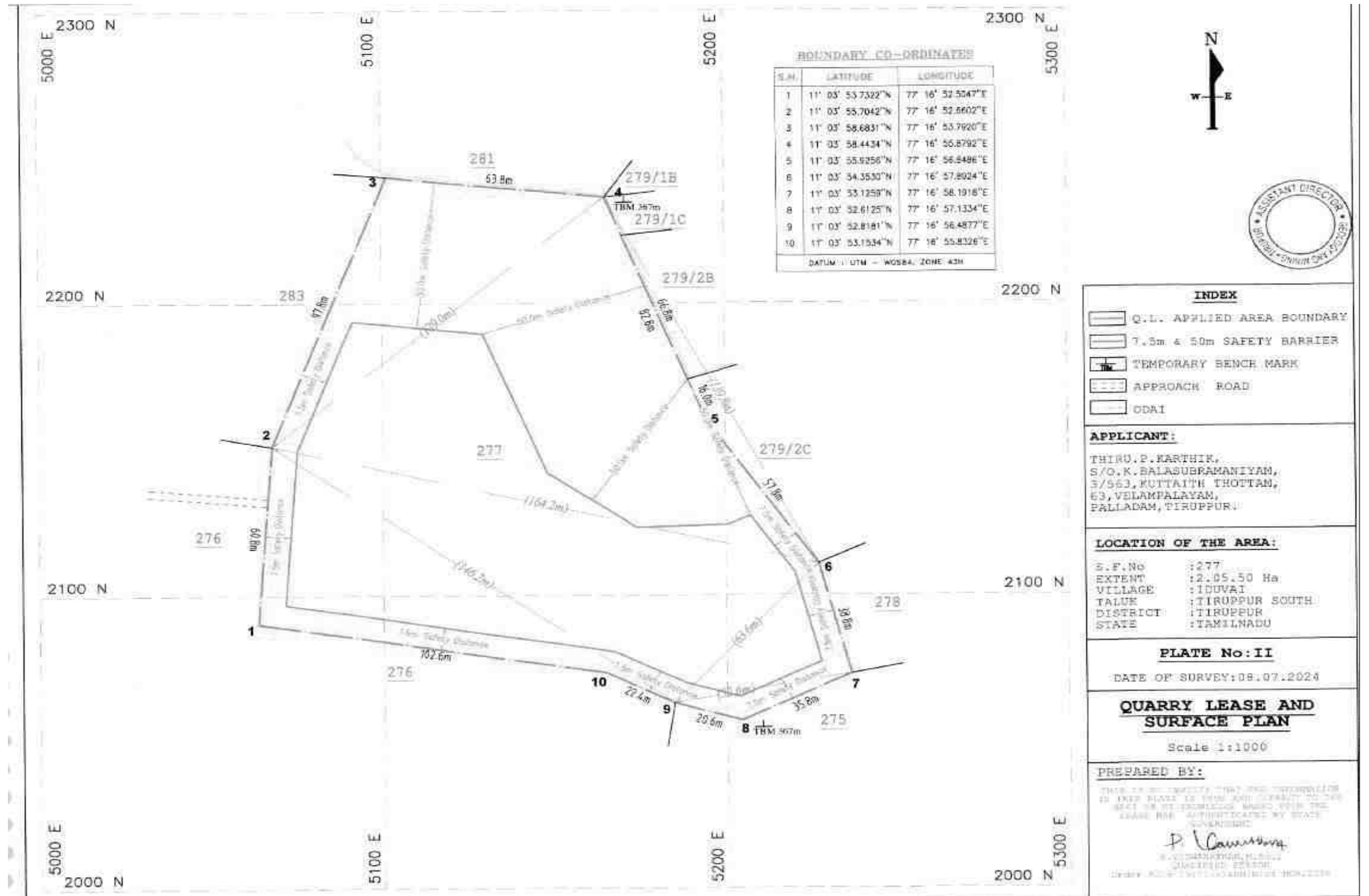


Fig No. 2.2: Lease & surface Plan of B. Karthik, Rough Stone and Gravel Quarry



Fig No. 2.3: Thiru. V.P. Ramasamy, Rough stone, Photograph shows general view of lease area.



Fig No. 2.4: Thiru. B. Karthik, Rough stone Photograph shows general view of lease area

Table No. 2.3: Environmental Settings

Accessibility				
Nearest Village	Iduvai Village - For Lease Area of V. P. Ramasamy –360m – NW - For Lease Area of B. Karthik -300 m – NW			
Nearest Settlement	S. No	Village Name	Total population as per 2011 census	Distance with Direction
	1	Iduvai	8751	1.2 km-N
	2	Velampalayam	3761	2.0 km - W
	3	Sedapalayam	2913	3.1 km -SE
	4	Aarumuthampalayam	4165	1.5 km- E
Nearest Town	Tirupur- 7 km - NE			
Nearest Railway station	TiruppurRailwaystation-7.9 km-NE			
Nearest Airport	Coimbatore International Airport – 25.2 km - SW			
Environmental Sensitiveness				
Interstate Boundary	Tamil Nadu –Kerala Interstate boundary – 53 km (SW)			
Coastal Zone	Arabian sea – 149.0km –W			
Reserve Forest	Nil within 25 km radius. The proposed projects site does not attract Forest Conservation Act, 1980.			
Wildlife sanctuary	Nil within 10km radius. The Proposed projects site does not the Wildlife (Protection) Act, 1972.			
Water bodies	➤ Canal – 110m-West ➤ Andipalayam lake -4.40km- NE ➤ Noyyal River 4.5km- North ➤ Samalapuram Lake-8.2km- NW			
Defense Installations	Nil within 10km radius			
Critically Polluted area	Nil within 10km radius			
Seismic zone	Zone-III, Moderate damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002			

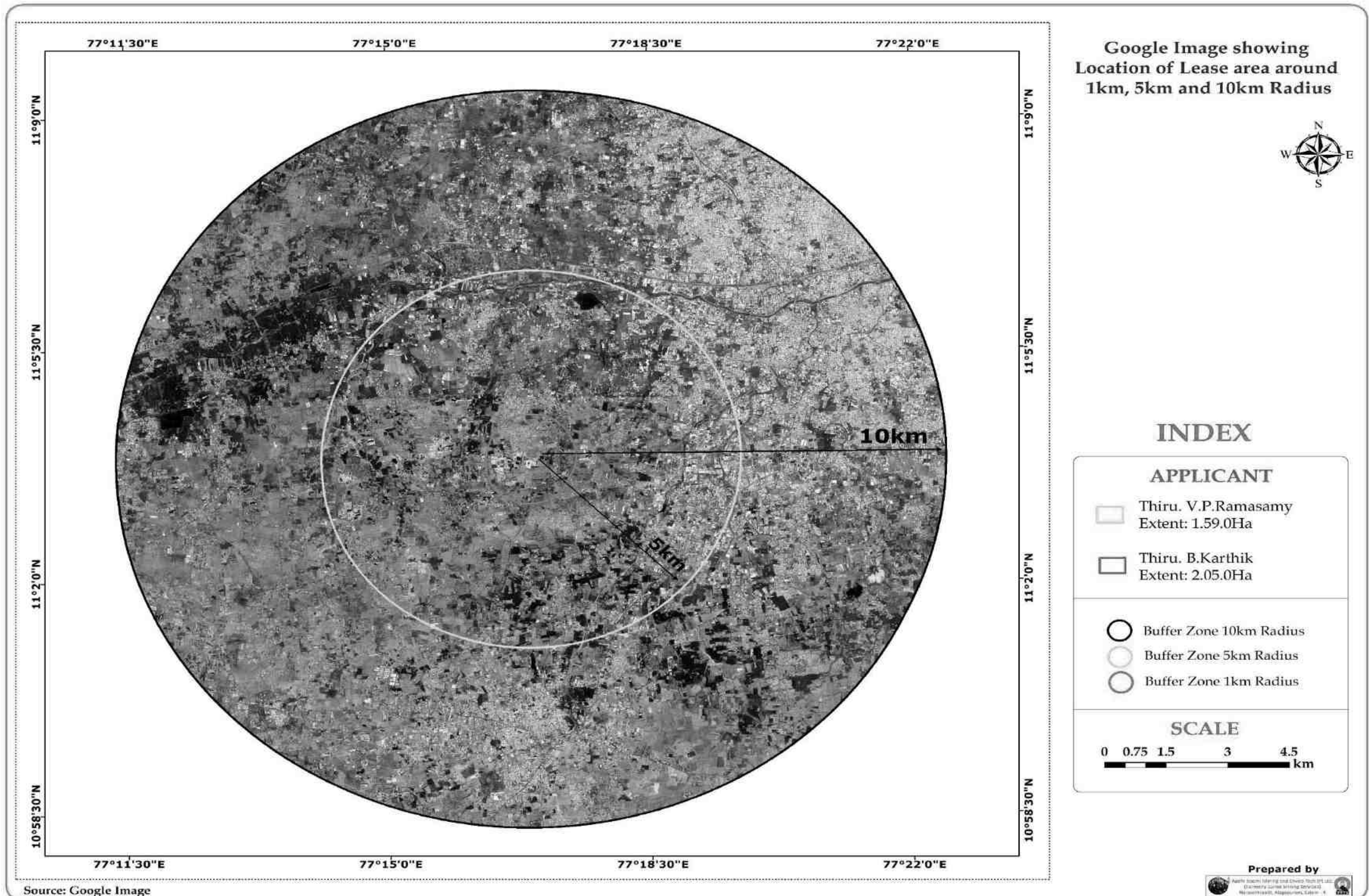


Fig No. 2.5: Google Earth Image showing 1km, 5km, 10 km radius around two proposed, rough stone and gravel quarries

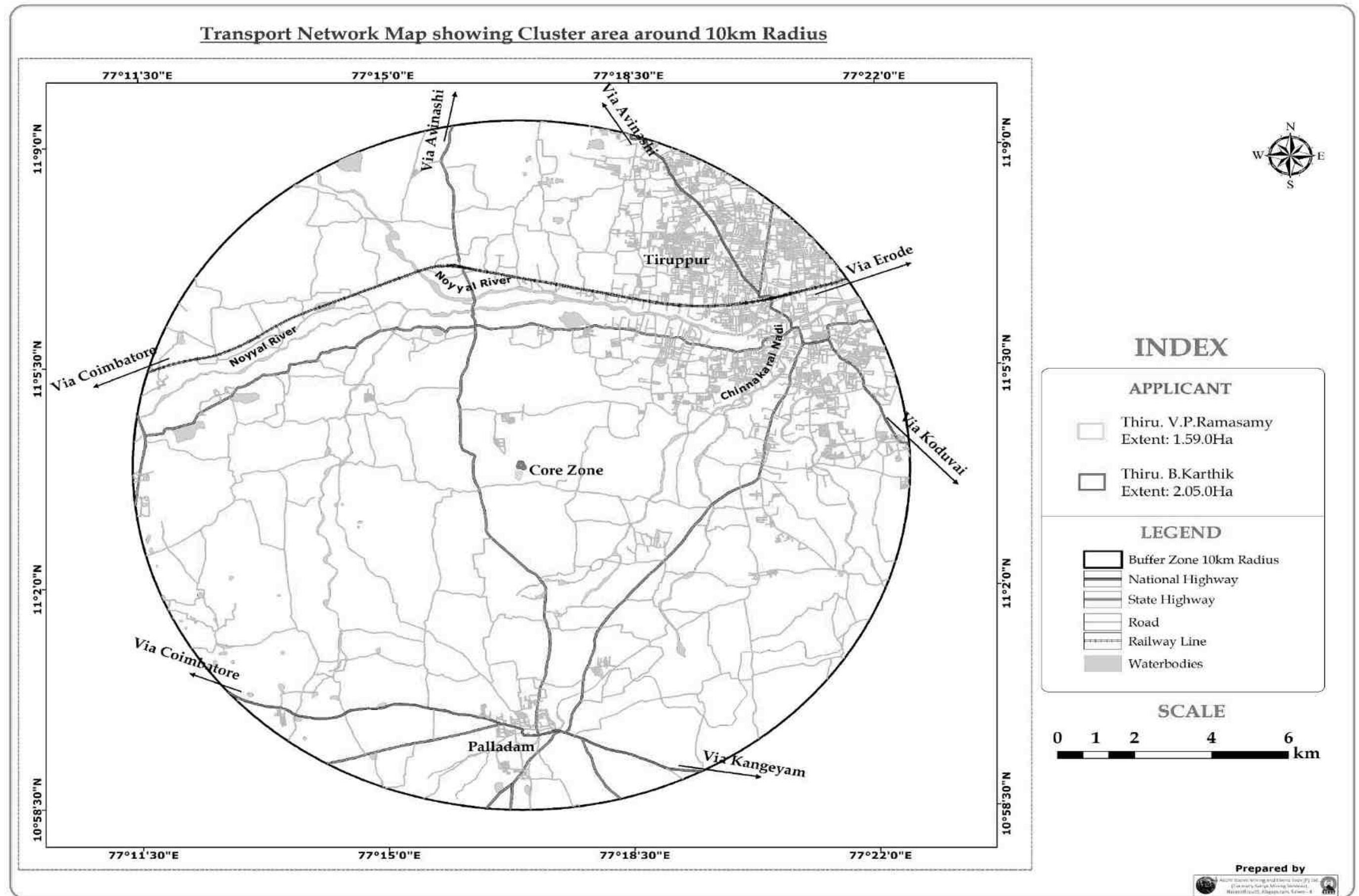


Fig No. 2.6: Image showing Transport Network of 10 km radius around four proposed, rough stone and gravel quarries

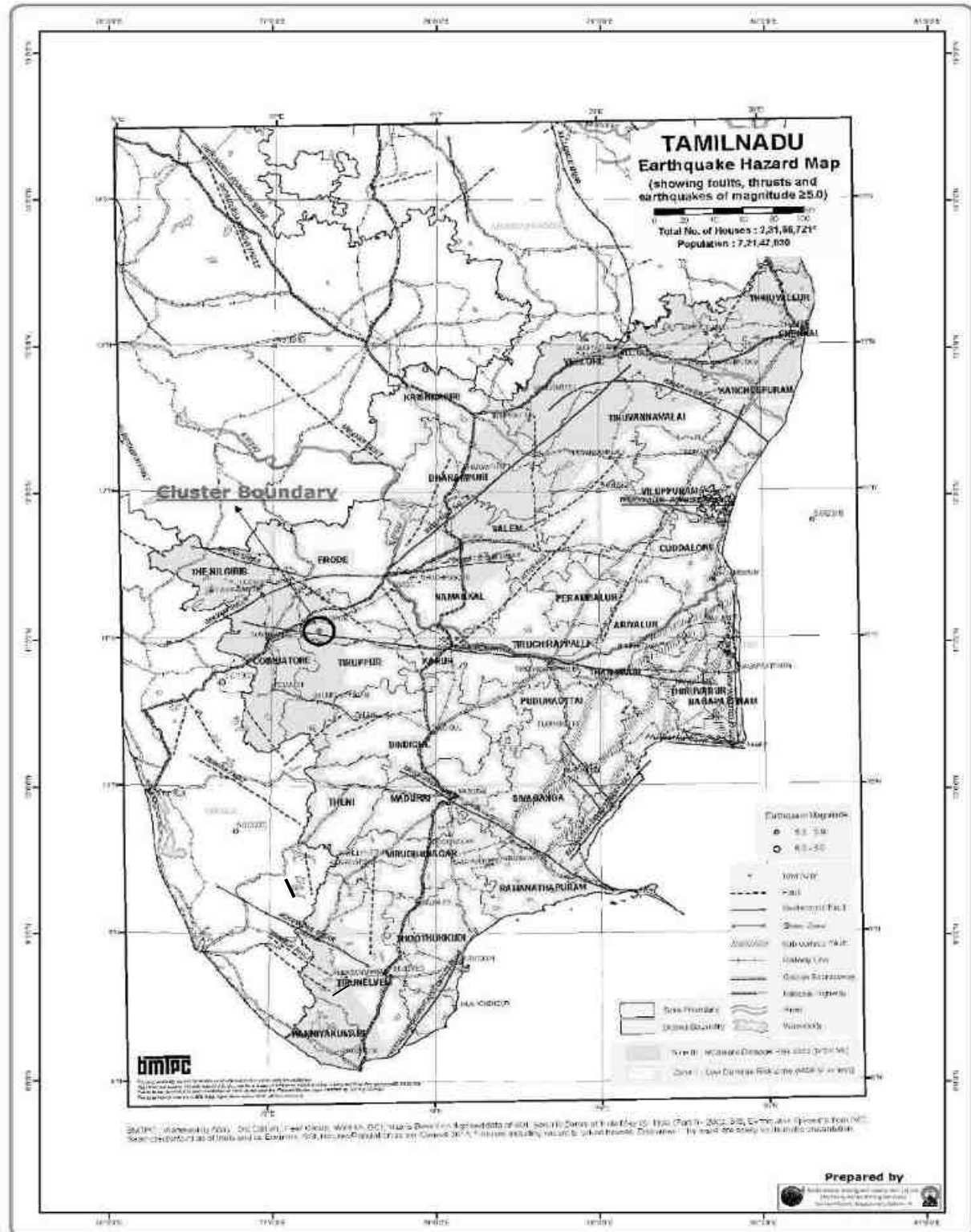


Fig No. 2.7: Earthquake Hazard Map

The cluster area falls under Zone-II, moderate damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002.

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

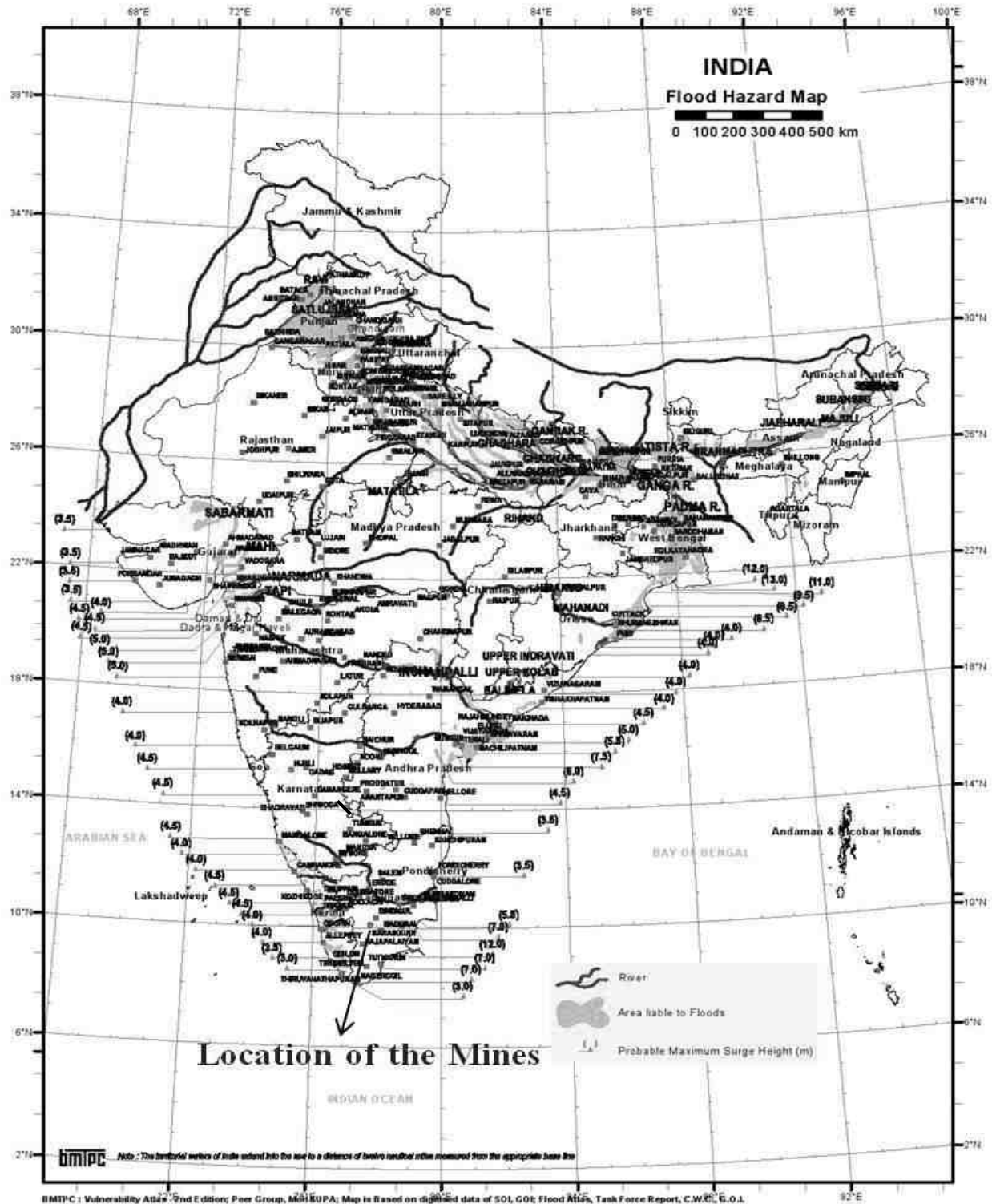


Fig No. 2.8: Flood Hazard Map

The cluster area falls under Probable Maximum Surge Height of 5m.

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

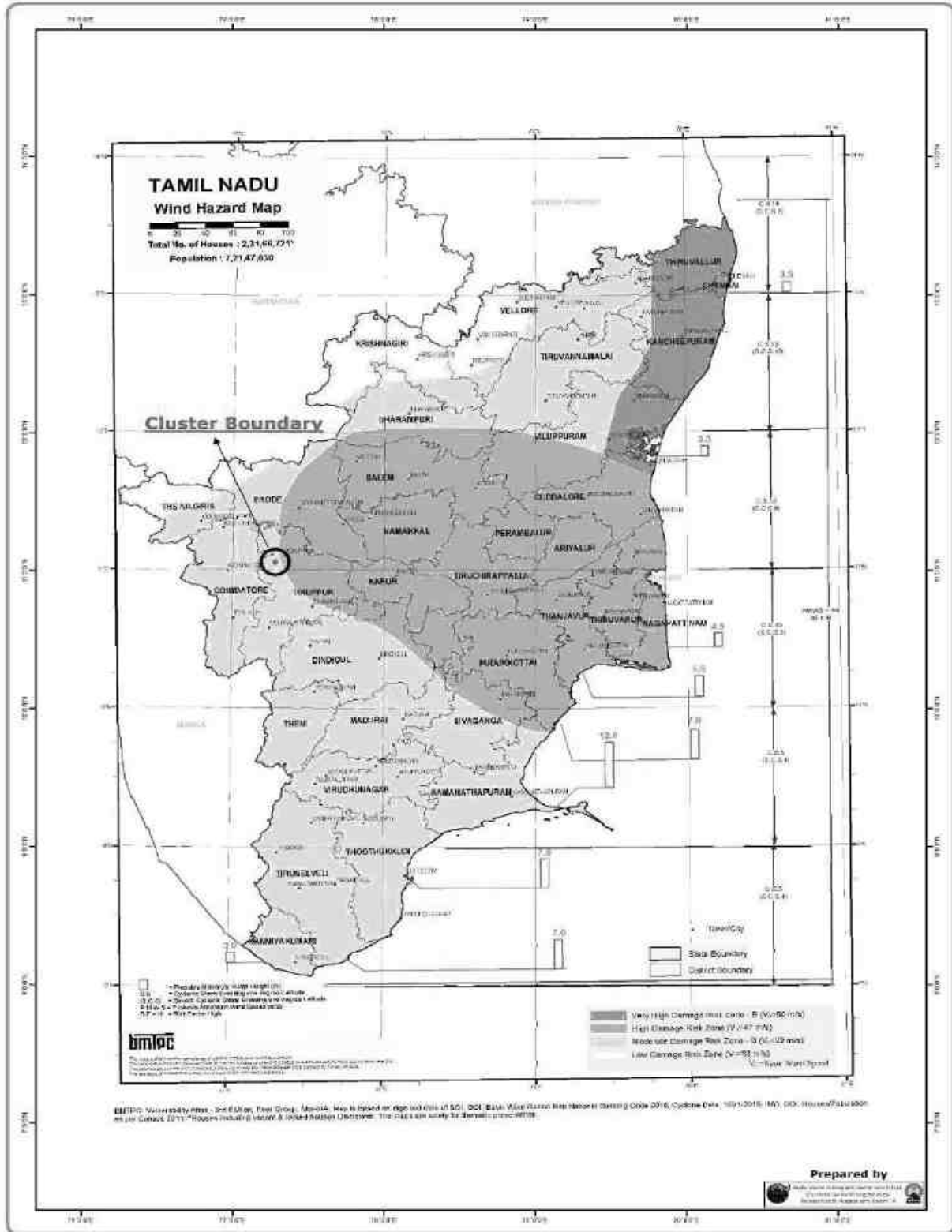


Fig No. 2.9: Winds and Cyclone Hazard Map

The cluster area falls under Moderate Damage Risk Zone-B ($V_b = 33$ m/s).

2.4 Size or Magnitude of Operation

Table No. 2.4: Mining Details

V. P. Ramasamy Rough Stone and Gravel Quarry	
Method of Mining	Open cast -Mechanized method of mining
Geological resources (95%)	3,87,721m ³
Mineable reserves	95,843m ³
Production	Rough stone – 95,843m ³ for five years
Top soil	Nil
Ore: Waste ratio	1: 0.52
Depth of Mining	42m below from the existing ground profile
Water Table	61 - 64 m bgl
Road design	1: 10 inside the pit and ramp 1:16 for transport
Overall Pit Slope	45°
Period of Lease	5years (From the date of execution)
Project Cost	Rs 44.03Lakhs
EMP Cost	Rs 3.80 lakhs
CER Cost	Rs.5 lakhs
B. Karthik Rough Stone Quarry and Gravel Quarry	
Method of Mining	Open cast -Mechanized method of mining
Geological resources	6,15,000m ³ and Gravel 41,000m ³
Mineable reserves	Rough stone - 1,72,820m ³ and Gravel – 22,546 m ³
Production	Rough stone – 1,72,820m ³ 100% recovery for five years and Gravel – 22,546 m ³
Top soil	Gravel – 22,546 m ³
Ore: Waste ratio	1: 0.05
Depth of Mining	32m bgl.
Water Table	61 - 64 m bgl
Road design	1: 10 inside the pit and ramp 1:16 for transport
Overall Pit Slope	45°
Period of Lease	5 years from the date of execution
Project Cost	Rs 59.69 Lakhs
EMP Cost	Rs 3.8 Lakhs
CER Cost	Rs.5 Lakhs

2.5 Proposed schedule for approval and implementation

The proposed activity will be commenced only after obtaining Environment Clearance from SEAC/SEIAA, Tamil Nadu and CTE/CTO from TNPCB and other necessary clearance from concerned departments.

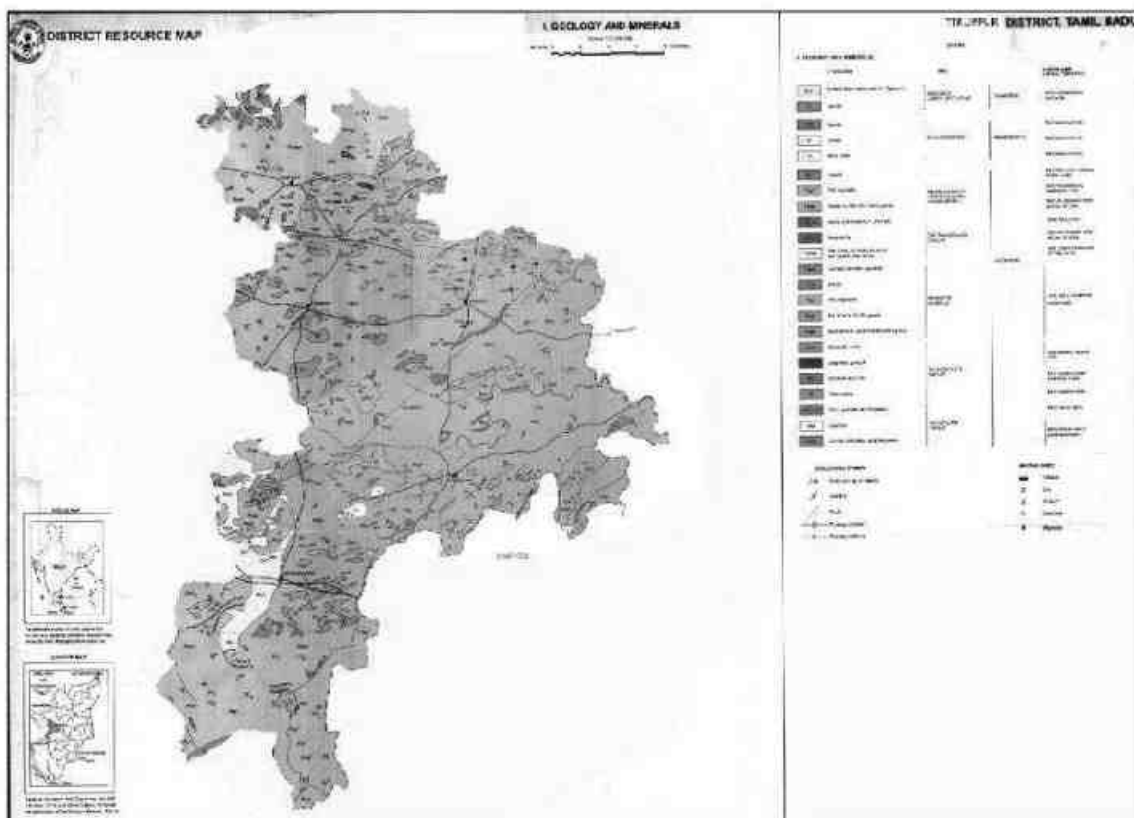
2.6 Technology and process description

2.6.1 Regional Geology

Geologically, Tiruppur district of Tamil Nadu forms a part of southern Granulitic terrain and is predominantly occupied by crystalline rocks of Archaean to late Proterozoic age. Regionally, the rocks can be grouped under five categories namely i. Charnockite Group represented by Charnockite, Pyroxene Granulite and Magnetite Quartzite, ii. Peninsular Gneissic Complex (II) comprising hornblende-biotite gneiss, iii. Basic intrusive include Pyroxinite/Dunite iv. Younger intrusive comprising, Nepheline-Syenite, Pink Granite, Pegmatite and Quartz veins and v. Quaternary sediments of Kankar and soil. Tiruppur District is predominantly occupied by hornblende Biotite gneisses of PGC (II) with enclaves of Magnetite Quartzite, Pyroxene Granulite and Charnockite. The area exposes several bands of Pyroxene Granulite which is medium grained, medium to dark grey in colour and stand out prominently in the gneissic country generally parallel to regional foliation. Charnockite is coarse grained, massive, many places it is foliated, grey coloured and greasy and exposed as bouldery outcrops and small knolls. It is well exposed in Central, Western and Southern parts of the Tiruppur District. The general strike of foliation varies from ENE-WSW, E-W with dipping towards NW and N respectively.

Hornblende-Biotite gneiss is well foliated, medium to coarse grained, pale grey and exposed as sheets and small knolls. Pink Granite gneiss occurs as thin bands and lensoidal bodies. It is a medium grained rock composed of alternating bands of mafic (mainly of biotite and hornblende) and felsic (Feldspar and Quartz) minerals. It is well recognized in Avinashi area.

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District



GEOLOGICAL FORMATION OF THE DISTRICT

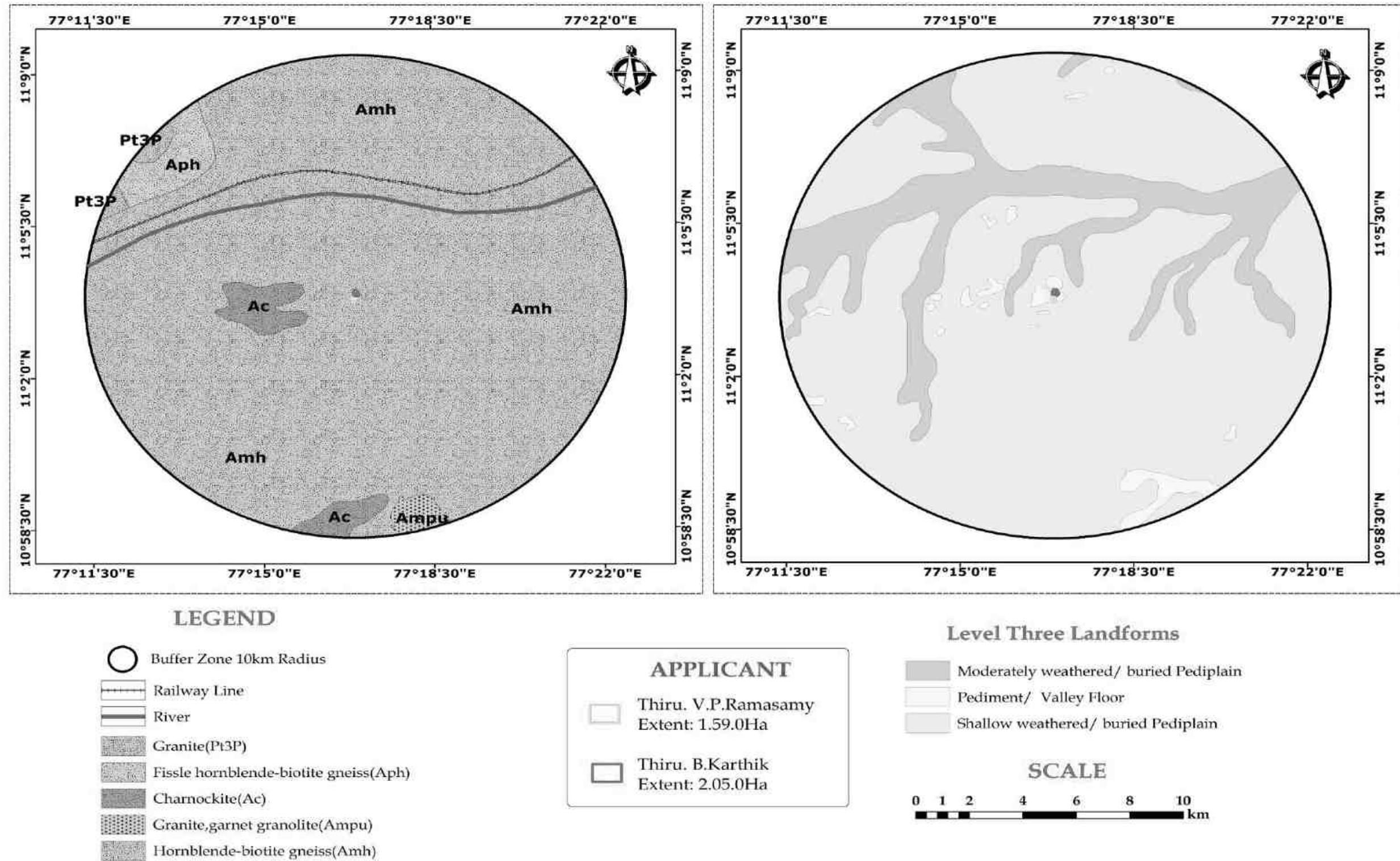
Age	Group	Lithology
Holocene		Blockcotton soil/clay±gypsum
Cenozoic		Kankar/calc-tufa
Neoproterozoic	Acid intrusive	Quartz veins, Pegmatite and Pink Granite
	Sivamalai syenite Complex	Nepheline-syenite
	Chalk Hills (Basic Intrusives)	Pyroxenite/Dunite
Archaean-Palaeoproterozoic	Peninsular Gneissic Complex (II)PGC (II)	Pink Granite Gneiss Hornblende Biotite gneiss
Archaean	Charnockite Group	Charnockite (Unclassified) Pyroxene Granulite BandedMagnetite Quartzite

2.6.2 Geology of the Precise Area:

Mining activities carried out in the district is Opencast Semi Mechanized/Mechanized and Manual method.

The Economic important mineral found in Tiruppur District are mainly Gypsum, Kankar, Magnesite, Dunite, Quartz, Feldspar, varieties of colour Granites (Dimensional stones), Rough stone (Aggregates) and Gravel/Earth. Mining activities based on these minerals are very less. However, numerous Rough Stone quarries are under operation for production of construction materials and earth fill (gravel) in Kodangipalayam, Morattupalayam, Madathukulam, Kiranur, Moolanur areas in the in addition to above, 'Dimensional Stones' (Granite) is also available in Avinashi, and Kangeyam Taluks. It is mainly used in fencing stone and Stone crushing units and size reduced in to $\frac{1}{2}$, $\frac{3}{4}$ and $1\frac{1}{2}$ inches Jelly and M sand, P sand which are mainly used in road and building construction purpose.

Geology and Geomorphology Features map of Lease area around 10km radius



Source: Geological Survey of India, 1995

Prepared by
Aadhi Boomi Mining and Enviro Tech (P) Ltd.
(Formerly Aadhi Boomi Mining and Enviro Tech (P) Ltd.)
Salem District, Tamil Nadu, India

Fig. No: 2.10: Regional Geology & Geomorphology Map

2.6.3 Method of Mining

a) Open cast working:

Opencast -Mechanized method will be adopted for exploiting the rough stone in all two quarries in this cluster. There are small quantities of top soil in all proposed mining lease area which will be used for green belt development within the lease area. Elevation of the area is 367 and 369 m above MSL.

The benches will be of maximum height of 5 m and the bench width should not be less than bench height. The ultimate pit slope will be maintained at more than 45°. S1 fencing shall be constructed at the top of high benches in order to safe guard the unauthorized entry of men and machinery. In the case of entry and exit of pit(s), G1 fencing as a parapet should be made to control tress passes.

b) Mode of working:

The Rough Stone is proposed to quarry at 5m bench height & width with conventional Opencast Mechanized Method.

The quarry operation involves Drilling, Blasting, Rock breaking, Excavation, Loading and Transportation of Rough Stone to the needy crusher.

The production of Rough Stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining.

Splitting of rock mass by considerable volume from the parent rock mass by drilling with Hand Jack Hammer and blasting, the liberated rough stone will be loaded into the Tipper by hydraulic excavators are used for loading the Rough Stone from pithead to the needy crushers.

Hydraulic excavators are attached with rock breakers for fragmentation of large boulders to avoid secondary blasting and easy handling of material. The primary boulders thus splitted 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.

2.6.4 Extent of Mechanization

The following machinery is proposed to be exclusively for the development and production work at this quarry. The machinery is proposed to be purchased or engaged on hire basis.

i) Drilling equipment:

Drilling of shot-holes will be carried out using compressor and Jack Hammers combination. Depth of holes shall be 1-2m. The spacing shall be 0.75m and burden shall be

0.60m from the preface. To achieve a correct blasting geometry certain amount of trial blast is prerequisite to effect a perfect pre-determined fragmentation and fly rock control. In case of heavy blasting qualified mine manager has to be appointed for proper calculation of powder factor and control blasting sequencing and arrangement of explosives etc. Details of drilling equipment are given below.

Table No. 2.5: Details of drilling equipment

V.P Ramasamy Rough Stone and Gravel Quarry					
S. No	Type	No's	Dia. of hole	Size / Capacity (m³)	Motive Power
1.	Jack Hammer	4	32mm	1.2mto 2.0m	Compressed Air
2.	Compressor	1	-	400psi	Diesel drive
B. Karthik, Rough Stone and Gravel Quarry					
S. No	Type	No's	Dia. of hole	Bucket/ Capacity (m³)	Motive Power
1.	Hand Jack Hammer	6	32mm	Hand held	Compressed Air
2.	Compressor	2	-	-	Diesel drive

ii) Loading Equipment:

Loading of waste, rough stone and gravel and reject materials shall be done by excavator into tippers from the working place periodically. Reject shall be dumped in the site earmarked for dumping as per approved mining plan of all two quarry lease owners. Details of loading equipment are tabulated below.

Table No. 2.6: Details of loading equipment

V.P Ramasamy Rough Stone and Gravel Quarry					
Type	No's	Bucket/Capacity(m³)	Make	Motive Power	H.P
excavator with bucket and rock breaker	1	300 m ³	-	Diesel	--
B.Karthik, Rough Stone and Gravel Quarry					
Type	No's	Bucket/Capacity (m³)	Make	Motive Power	H.P
excavator with bucket and rock breaker	2	300	-	Diesel	-

iii) Transportation:

Transport of Rough stone and gravel, Rejects and waste shall be done by Tippers.

Table No. 2.7: Details of transportation equipment

V.P Ramasamy, Rough Stone and Gravel Quarry				
Type	No's	Size/Capacity(m³)	Motive Power	H.P
Tipper	2	20Tonnes	Diesel	120
Water sprinkler	1	3000 litres	Diesel	--
B. Karthik, Rough Stone and Gravel Quarry				
Type	No's	Size/Capacity(m³)	Motive Power	H.P
Tipper	3	10/15 M.T	Diesel	120
Water sprinkler	1	3000 litres	Diesel	-

iii) Blasting Pattern

Selection of drilling pattern for blasting varies with the type and size of the drills us depth of hole, kind of rock, quantity, rapidity of the explosives and amount of steaming. The quarrying operation is proposed to carried out with conventional method of mining using shallow Jack hammer drilling and mild blasting with NONEL initiation of shattering effect for loosen the rough stone. NONEL initiation provides reasonably good solution to fly rock problem. The main objectives of NONEL Blasting are to reduce the ground vibration, noise, fly rocks generated due to blasting operations. The overall cost of blasting in NONEL is very less compared to electrical blasting and hence it optimizes the cost of blasting.

a) V.P. RAMASAMY Drilling and blasting parameters are as follows:

Depth of Each hole	: 1.5m
Spacing between holes	: 1.2m
Burden for hole	: 1.0m
Diameter of hole	: 32mm
Pattern of hole	: Staggered pattern
Inclination of holes	: 80°from horizontal
Use of delay detonators	: NONEL
Hole to Hole	: 17 milli second delay (ms)
Row to Row	: 25 milli second delay (ms)

b) B. KARTHIK Drilling and blasting parameters are as follows:

Depth of Each hole	: 1.5m
Spacing between holes	: 1.0m
Burden for hole	: 0.75m
Diameter of hole	: 32mm
Pattern of hole	: Staggered pattern
Inclination of holes	: 80° from horizontal
Use of delay detonators	: NONEL
Hole to Hole	: 17 milli second delay (ms)
Row to Row	: 25 milli second delay (ms)

Type of explosives to be used:

Small Dia. 25mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of rough stone. No deep hole drilling or secondary blasting is proposed. NONEL blasting and muffle blasting may be adopted after permission from DGMS

Measures proposed to minimize ground vibration due to blasting:

The quarry is situated more than 300m away from the nearby villages, Controlled blasting measures by NONEL initiation is being adopted for minimizing ground vibration and fly rock.

Hand jackhammer drilling with blasting is proposed to be carried out with minimum use of explosive mainly to give heaving effect in rough stone for easy excavation and to control fly rock.

NONEL Delay detonators:

NONEL blasting permits for bottom initiation and lesser charge per delay.

The major advantages of NONEL blasting are:

- Reduction of ground vibration.
- Reduction in air blast.
- Reduction in over break.
- Improved fragmentation.
- Better control of fly-rock.

Blasting program for the production per day (As per Peak production capacity):

The Hydraulic excavators are attached with rock breakers for breaking the rock mass to reduce the blasting and explosive usage also to avoid secondary blasting. Anyhow, as per day's production schedule the maximum blasting program proposed as given below.

V. P. Ramasamy, Rough Stone and Gravel Quarry

Peak production (3rd Year) = 24,075m³ x 2.6(Bulk Density) = 62,595 Tons
 No of Holes = 70 Holes
 Yield = 210 Tons
 Powder factor = 6 Tons/ Kg of explosives
 Maximum explosive required=35 Kg-Slurry explosives
 Charge/hole = 0.5 Kg
 Blasting at day time only = 12.00-12.30 P.M. (whenever required)

B) B. Karthik, Rough Stone and Gravel Quarry

Peak production (3rd Year) = 38,985m³ x 2.6(Bulk Density) = 1,01,361 Tons
 No of Holes = 112 Holes
 Yield = 336 Tons
 Powder factor = 6 Tons/ Kg of explosives
 Maximum explosive required= 56 Kg-Slurry explosives
 Charge/hole = 0.5 Kg
 Blasting at day time only = 12.30-1.00 P.M. (whenever required)

Anticipated theoretical calculation of PPV

The empirical equation for assessment of peak particle velocity (PPV) is:

$$V = K [R/Q^{0.5}] - B$$

Where-

V peak particle velocity (mm/s)

K = site and rock factor constant

Q=maximum instantaneous charge (kg)

B = constant related to the rock and site (usually 1.6)

R=distance from charge (m)

Table No. 2.8: Predicted PPV Values Due To Blasting

a) V. P. Ramasamy, Rough Stone and Gravel Quarry

Maximum Charge per day (kg)	Number of Round Blast per day	Maximum Charge per day (kg)	Number of holes blasted per round	Number of holes blasted per day	Maximum Charge per blast at a time NONEL (kg)	Nearest Infrastructure (m)	PPV (mm/s)
35	1	35	70	70	1(2holes)	360	0.698

b) B. Karthik, Rough Stone and Gravel Quarry

Maximum Charge per day (kg)	Number of Round Blast per day	Maximum Charge per day (kg)	Number of holes blasted per round	Number of holes blasted per day	Maximum Charge per blast at a time NONEL (kg)	Nearest Infrastructure (m)	PPV (mm/s)
56	1	56	112	112	1(2holes)	230	2.083

From the above table, the charge per blast of 56 kg is well below the Peak Particle Velocity of 8 mm/s as per Directorate General of Mines Safety for safe level criteria through Circular No. 7 dated 29/8/1997. Anyhow, the applicant ensures that carry out the blasting based on the site condition under the supervision of competent qualified statutory personnel employed. However, as per statutory requirement control measures will be adopted to avoid the impacts due to ground vibrations and fly rocks due to blasting.

5.4 Storage and safety measures to be taken while blasting:

The applicant will engage authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory foreman/Permit Mines Manager. The explosives agencies should be having the valid Blaster certificate. He will blast holes in the quarry site. After completion of Blasting the explosive Agency will take it out back the remaining quantity of Explosives. The Competent Qualified Statutory personnel appointed by the applicant will maintain the records of Explosives as per the Indian Explosives Act.

2.7 Land Use Pattern of the Core Zone

The proposed area is almost flat terrain with composed of outcrops exposed in area with height 367-369m above mean sea level. Water table of the area is said to be fluctuated between 68m during a year. Existing and proposed land use pattern of the two lease areas given in table 2.9

Table No. 2.9: Computation of existing and proposed land use pattern

a) V. P. Ramasamy, Rough Stone Quarry and Gravel Quarry			
S. No	Head	Area Present (Ha)	Are at the end if lease period (Ha)
i)	Mining area	1.12.0	1.12.0
ii)	Site services	Nil	Nil
iii)	Road	0.02.0	0.02.0

iv)	Green belt	Nil	0.20.
v)	Unutilized area	0.45.0	0.25.0
Total		1.59.0	1.59.0

b) B. Karthik, Rough Stone Quarry and Gravel Quarry			
S. No	Head	Area Present (Ha)	Are at the end if lease period (Ha)
i)	Mining area	Nil	1.05.40
ii)	Site services	Nil	0.02.00
iii)	Road	Nil	0.02.00
iv)	Green belt	Nil	0.74.70
v)	Unutilized area	2.05.00	0.20.90
Total		2.05.00	2.05.00

2.8 Estimation of Reserves

2.8.1 V.P. Ramasamy Rough Stone and Gravel Quarry

a) Geological Resources

As far as rough stone (Charnockite) is concerned, the only practical method is the systematic geological mapping and delineation of rough stone within the field and careful evaluation of body luster, physical properties, engineering properties, commercial aspects etc.,

Totally four sections have been drawn, one section drawn along the length wise as (X-Y) and other three cross sections are drawn width wise as (A-B, C-D and E-F) to cover the maximum area considered for lease upto 42m depth below from the existing ground profile.

The Topographical, Geological plan and sections demarcated the commercial marketable rough stone and Gravel deposit has been prepared in the scale of 1:1000 (please refer the Geological plan and sections Plate No. III). As the sale of rough stone and Gravel are in terms of cubic metres (Volume) only and not in terms of tonnage. No Exploration has been carried out.

The Geological Resources of Rough stone and Gravel are calculated upto a depth of 42m below from the existing ground profile of the area. The total Geological Resource

calculated after depleting the existing pit. The total geological resources are given below: in the table 2.10.

Table No. 2.10: Computation of Geological Resources and Reserves

GEOLOGICAL RESOURCES						
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Geological Resources of Rough stone in (m³) 100%	Gravel (m³)
XY - AB	I	69	8	2	-	1104
	II	69	8	5	2760	-
	III	69	9	5	3105	-
	IV	69	9	5	621	-
	V	69	9	1	28980	-
		69	105	4	36225	-
	VI	69	105	5	36225	-
	VII	69	105	5	36225	-
	VIII	69	105	5	36225	-
	IX	69	105	5	36225	-
Total					183471	1104
XY - CD	I	45	8	2	-	720
	II	45	9	5	2025	-
	III	45	9	5	2025	-
	IV	45	44	5	9900	-
	V	45	44	1	1980	-
		45	82	4	14760	-
	VI	45	82	5	18450	-
	VII	45	82	5	18450	-
	VIII	45	82	5	18450	-
	IX	45	82	5	18450	-
Total					104490	720
XY - EF	I	58	16	2	-	1856
	II	58	16	5	4640	-
	III	58	18	5	5220	-
	IV	58	18	5	5220	-
	V	58	20	1	1160	-
		58	60	4	13920	-
	VI	58	60	5	17400	-
	VII	58	60	5	17400	-
	VIII	58	60	5	17400	-
	IX	58	60	5	17400	-
Total					99760	1856
Grand Total					387721	3680

The Geological Resources of Rough Stone : 3,87,721m³

The Geological Resources of Gravel : 3,680m³

Geological Resources has been computed based on the physical investigation and filed survey data.

b) V.P. Ramasamy Rough Stone and Gravel Quarry

Estimation of Mineable Reserves:

The mineable\recoverable reserves are estimated by cross-sectional method having considered the recovery factor, depth of mining, safety barriers etc.,

c) V.P. Ramasamy Rough Stone and Gravel Quarry

MINEABLE RESERVES					
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Geological Resources of Rough stone in (m³) 100%
XY - AB	V	50	77	4	15400
	VI	45	67	5	15075
	VII	40	57	5	11400
	VIII	35	47	5	8225
	IX	30	37	5	5550
	Total				
XY - CD	IV	25	28	5	3500
	V	27	24	1	648
		45	50	4	9000
	VI	45	40	5	9000
	VII	45	30	5	6750
	VIII	40	20	5	4000
	Total				
XY - EF	V	40	27	4	4320
	VI	35	17	5	2975
	Total				
Grand Total					95843

Year Wise Production plan.

The Composite year wise Development and production plan and sections indicating the pit lay out and green belt development are shown in Plate No. III and given table below.

YEARWISE RESERVES						
Section	Year	Bench	Length in (m)	Width in (m)	Depth in (m)	Geological Resources of Rough stone in (m³) 100%
XY – EF	I	V	40	27	4	4320
		VI	35	17	5	2975
XY - CD		IV	25	28	5	3500
		V	27	24	1	648
		V	45	50	4	9000
		Total				
XY - AB	II	V	50	77	4	15400
		Total				

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

	III	VI	45	67	5	15075
XY - CD		VI	45	40	5	9000
		Total				
XY - AB	IV	VII	40	57	5	11400
		VIII	35	47	5	8225
		Total				
XY - CD	V	IX	30	37	5	5550
		VII	45	30	5	6750
		VIII	40	20	5	4000
		Total				
Grand Total						95843

The Recoverable reserves have been computed as 95,843m³ of rough stone at 100% recovery for five years up to a depth of 42m below from the existing ground profile (Refer Plate No. III). The Gravel was removed previous quarrying operations. The peak production capacity in the quarry is 24,075m³ of rough stone on 3rd year and the proposed production schedule is arrived as per applicant's requirement and the EIA and EMP will be prepared an annual peak production.

The applicant ensures the total quantity proposed in the benches will not exceed during the quarrying operation. Besides the rough stone locked up in benches will be exploited after obtaining necessary permission from the office of Director of Mine Safety, Chennai region by submitting relevant documents, appropriate safety plans and its Mitigation measures.

One lorry load	= 6m ³ (approximate)
Total Number of Working days	= 300 days per year
Total Rough stone to be removed during the plan period	= 95,843m ³
Peak production capacity during the 3rd year	=24,075m ³
Hence total Lorry loads per day	=24,075m ³ /6m ³
	=4,013 Lorry loads
	=4,013/300 days
Rough Stone (Maximum)	=13-14 Lorry loads per day

Working hours = 8.00 am to 5.00 pm (with 12.00-1.00 P.M. lunch break)

2.8.2 B. Karthik Rough Stone and Gravel Quarry

a). Geological Resources

The Geological Resources of Rough stone and Gravel are calculated up to a depth of 32m below from the existing ground profile of the area. The geological resources are estimated in area method and the total geological resources are given below:

Table No. 2.11: Computation of Geological Resources and Reserves

Extent (Ha)	Area (m²)	Depth (m)	Rough stone @ 100% Recovery (m³)	Gravel (m³)
2.05.0	20500	2	-	41000
2.05.0	20500	30	615000	-

The Geological Resources of Rough Stone : 6,15,000m³

The Geological Resources of Gravel : 41,000m³

Geological Resources has been computed based on the physical investigation and filed survey data.

b) B. Karthik, Mineable/Recoverable Reserves:

The mineable reserve is estimated by the cross-sectional method, taking into account the factors such as the recovery factor, depth of mining and safety barriers. The estimated mineable reserve details about the estimation of the mineable reserves are provided below in table 2.12

Table No. 2.12: Computation of Mineable/Recoverable Reserves

MINEABLE RESERVES						
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Geological Resources of Rough stone in (m ³) 100%	Gravel (m ³)
XY - AB	I	76	98	2	-	14896
	II	75	96	5	36000	-
	III	70	86	5	30100	-
	IV	64	76	5	24320	-
	V	59	66	5	19470	-
	VI	39	56	5	10920	-
	VII	29	46	5	6670	-
Total					127480	14896
XY - CD	I	75	51	2	-	7650
	II	74	49	5	18130	-
	III	68	39	5	13260	-
	IV	63	28	5	8820	-
	V	57	18	5	5130	-
Total					45340	7650
Grand Total					172820	22546

Tentative Mineable Reserves of Rough Stone : **1,72,820m³**

Tentative Mineable Reserves of Gravel : **22,546m³**

The Tentative mineable reserves have been computed as 1,72,820m³ of rough stone and 22,546m³ of Gravel at the rate of 100% recovery up to a depth of 32m below from the existing ground profile.

2.9. Year Wise Production and Development

2.9.1 B. Karthik, Rough Stone Quarry

The five years production is designed up to a depth of 32m. The waste ratio with reference to the production of rough stone and gravel would be 1:0.052.

Table No. 2.13: Computation of year wise production

YEARWISE RESERVES							
Section	Year	Bench	Length in (m)	Width in (m)	Depth in (m)	Geological Resources of Rough stone in (m³) 100%	Gravel (m³)
I	XY - AB	I	45	98	2	-	8820
		II	43	96	5	20640	-
		III	33	86	5	14190	-
		Total				34830	8820
II	XY - AB	I	31	98	2	-	6076
		II	32	96	5	15360	-
		III	37	86	5	15910	-
	XY - CD	I	6	51	2	-	612
		II	5	49	5	1225	-
		Total				32495	6688
III	XY - CD	I	69	51	2	-	7038
		II	69	49	5	16905	-
		III	68	39	5	13260	-
		IV	63	28	5	8820	-
		Total				38985	7038
IV	XY - CD	V	57	18	5	5130	-
	XY - AB	IV	64	76	5	24320	-
		Total				29450	-
V	XY - AB	V	59	66	5	19470	-
		VI	39	56	5	10920	-
		VII	29	46	5	6670	-
		Total				37060	-
Grand Total						172820	22546

The Recoverable reserves have been computed as 1,72,820m³ of rough stone and 22,546m³ of Gravel at 100% recovery for five years up to a depth of 32m below from the existing ground profile.

The peak production capacity in the quarry is 38,985m³ of rough stone on 3rd year of the plan period and the proposed production schedule is arrived as per applicant's requirement and the EIA & EMP will be prepared an annual peak production.

The applicant ensures the total quantity proposed in the benches will not exceed during the quarrying operation. Besides the rough stone locked up in benches will be exploited after obtaining necessary permission from the office of Director of Mine Safety, Chennai region by submitting relevant documents, appropriate safety plans and its Mitigation measures.

One lorry load	= 6m ³ (approximate)
Total Number of Working days	= 300 days per year
Total Rough stone to be removed during the lease period	= 1,72,820m ³
Peak production capacity during the 3rd year	= 38,985m ³
Hence total Lorry loads per day	= 38,985m ³ /6m ³ = 6,498 Lorry loads = 6,498/300 days
Rough Stone (Maximum)	= 21-22 Lorry loads per day
Total Gravel to be removed during the lease period	= 22,546m ³
Peak production capacity during the 1st year	= 8,820m ³
Hence total Lorry loads per day 8,820m ³ /6m ³	= 1,470 Lorry loads = 1,470/300 days
Gravel (Maximum)	= 4-5 Lorry loads per day

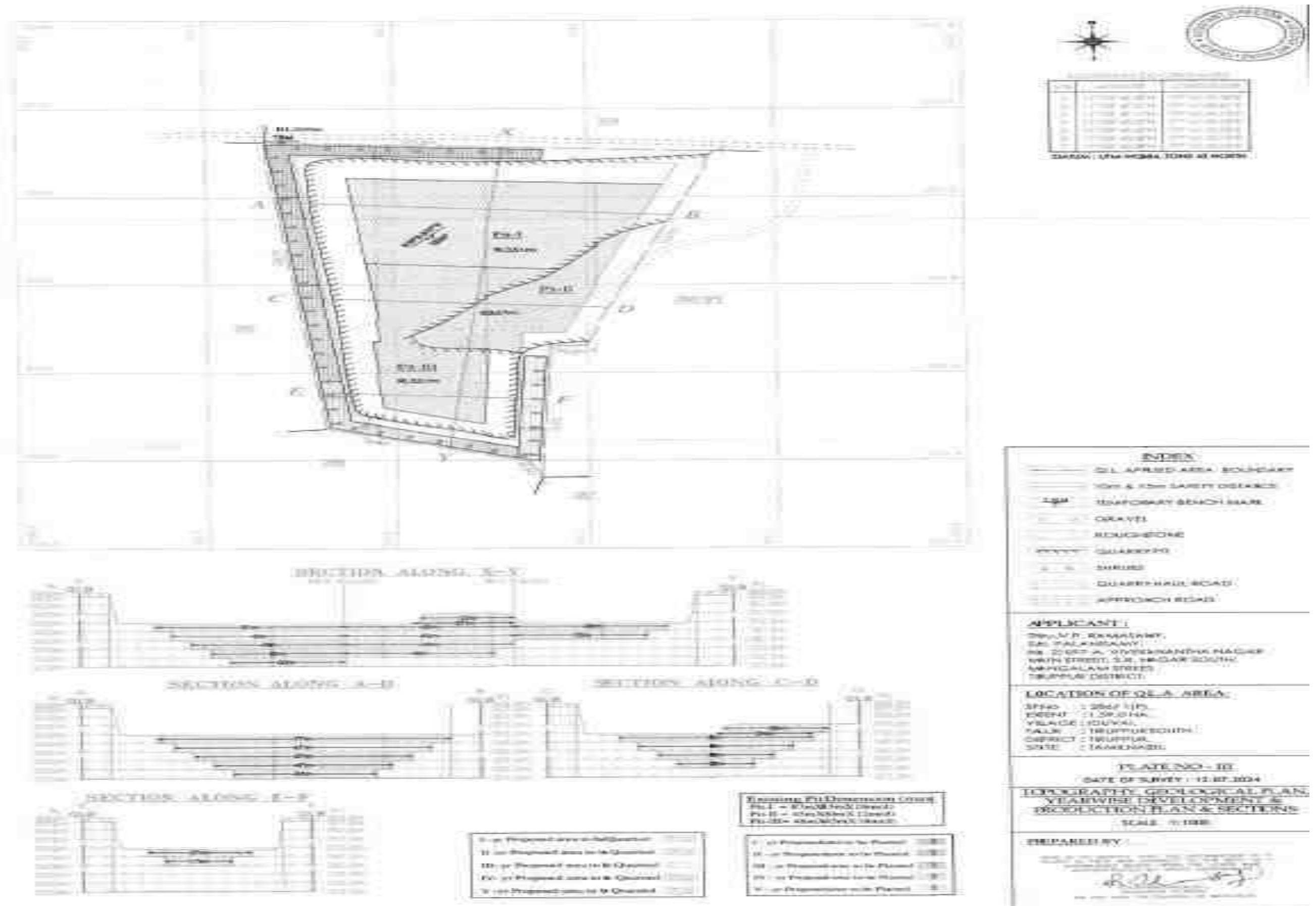


Fig No. 2.11: Year wise Production and Development Plan of V. P. Ramasamy, Rough stone and gravel quarry

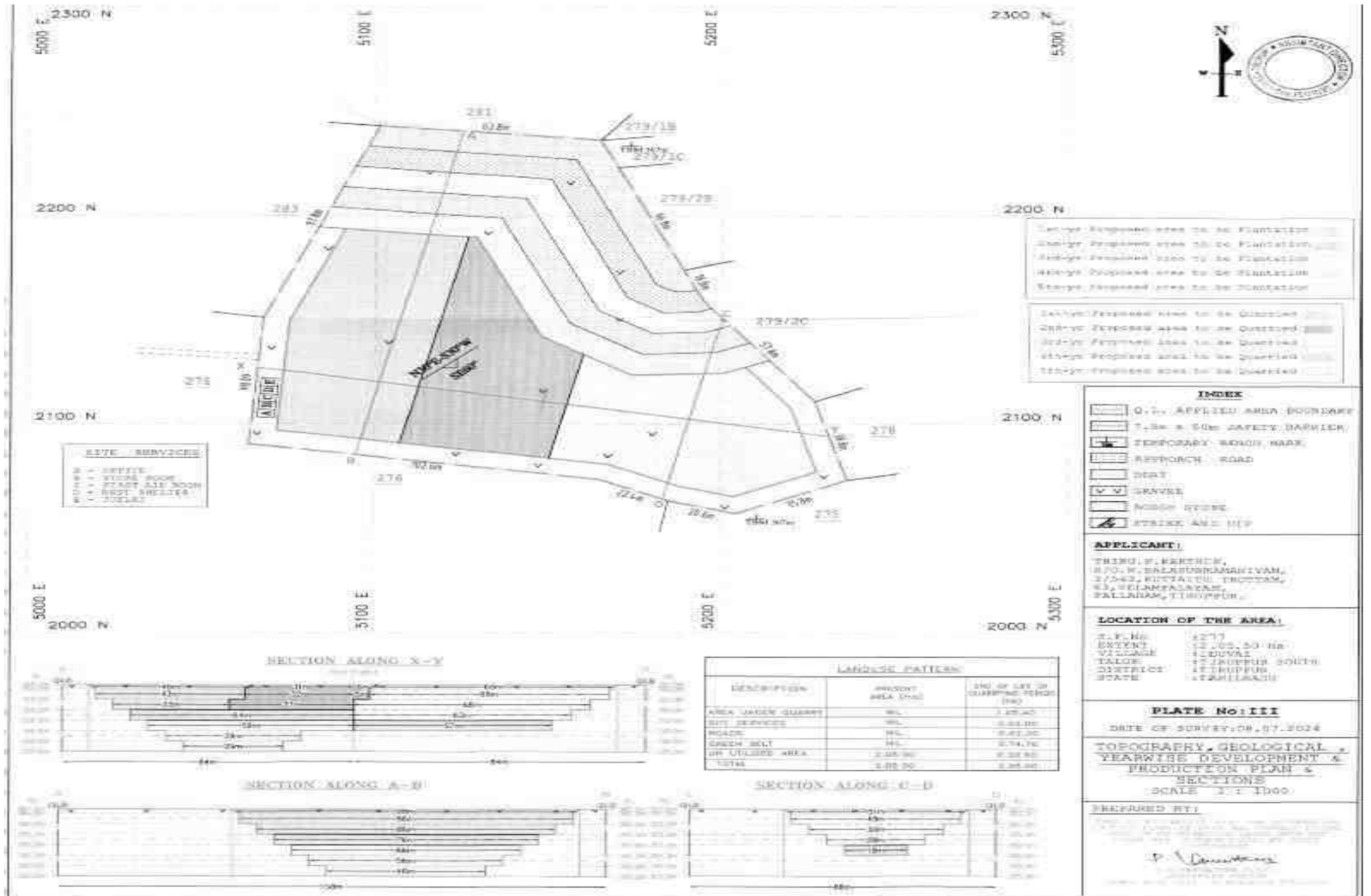


Fig No. 2.12: Year wise Production and Development Plan of B. Karthik, Rough stone and gravel quarry

2.10 Brief note on conceptual mining plan for the entire lease period base on the geological, mining and environmental considerations:

2.10.1 V. P. Ramsamy rough stone quarry

Conceptual mining plan is prepared with an object of long-term systematic development of benches, layouts, selection of permanent structures, depth of quarrying and ultimate pit dimensions, selection of sites for construction of infrastructure, etc.,

Ultimate Pit Dimension (Maximum)			
Pits	Length(m)	Width(m)	Depth (m)
I	62	97	42m
II	45	75	37m
III	50	45	27m

The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc.,

As the applicant has awarded quarry lease for five years, the ultimate pit limit (dimension) at the end of this lease period is given below:

All the base line information studies like Air quality monitoring, Noise and vibration monitoring, Water analysis studies will be carried out every year as per the MoEF & CC Norms. Please refer Plate Nos. III, IV and V. As per the NGT orders the applicant is directed to plant 500 tree saplings per hectares along the quarry site either at the regular or the phased manner by planting native species.

There is no waste anticipated during the entire life of quarry. Hence, there is no proposal for backfilling. After completion of quarry operations, the quarry pit will be allowed to collect the seepage and rain water, the water storage will be kept as temporary reservoir to charging the nearby wells and will be utilized for greenbelt development. When the quarry reaches its ultimate pit limit or at the end of life of quarry, greenbelt development will be carried out over the quarried out top bench. The Conceptual Mining is based upon the entire ROM proposed for the life of the Mine.

The quarry area will be fenced with barbed wire fencing also safety bund constructed around the quarry to prevent inadvertent entry of public and cattle (Refer Plate No. IV and V).

2.11.2 Restoration, Reclamation of already mined out area.

As the rate of production of rough stone is 100% for the five years. The quarried-out pit will be used as water storage pond which improves the agricultural activity in the buffer zone.

The quarried pit will be fenced by using Barbed wire fencing to prevent inherent entry of public and cattle.

2.11 Brief note on conceptual mining plan for the entire lease period base on the geological, mining and environmental considerations:

2.11.1 B. Karthik, Rough stone quarry.

Conceptual mining plan is prepared with an object of long-term systematic development of benches, layouts, selection of permanent structures, depth of quarrying and ultimate pit dimensions, selection of sites for construction of infrastructure, etc.,

Ultimate Pit Dimension (Maximum)			
Section	Length(m)	Width(m)	Depth (m)
XY-AB	79	98	32
XY-CD	75	51	22

The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc.,

As the applicant has awarded quarry lease for five years, the ultimate pit limit (dimension) at the end of this lease period is given below:

All the base line information studies like Air quality monitoring, Noise and vibration monitoring, Water analysis studies will be carried out every year as per the MoEF & CC Norms. Please refer Plate Nos. III, IV and V. As per the NGT orders the applicant is directed to plant 500 tree saplings per hectares along the quarry site either at the regular or the phased manner by planting native species.

There is no waste anticipated during the entire life of quarry. Hence, there is no proposal for backfilling. After completion of quarry operations, the quarry pit will be allowed to collect the seepage and rain water, the water storage will be kept as temporary reservoir to charging the nearby wells and will be utilized for greenbelt development. When the quarry reaches its ultimate pit limit or at the end of life of quarry, greenbelt development will be carried out over the quarried out top bench. The Conceptual Mining is based upon the entire ROM proposed for the life of the Mine.

The quarry area will be fenced with barbed wire fencing also safety bund constructed around the quarry to prevent inadvertent entry of public and cattle (Refer Plate No. IV and V).

2.11.2 Restoration, Reclamation of already mined out area.

As the rate of production of rough stone is 100% for the five years, the Gravel are to backfill in the quarried-out pit. The quarried-out pit will be used as water storage pond which improves the agricultural activity in the buffer zone.

The quarried pit will be fenced by using Barbed wire fencing to prevent inherent entry of public and cattle.

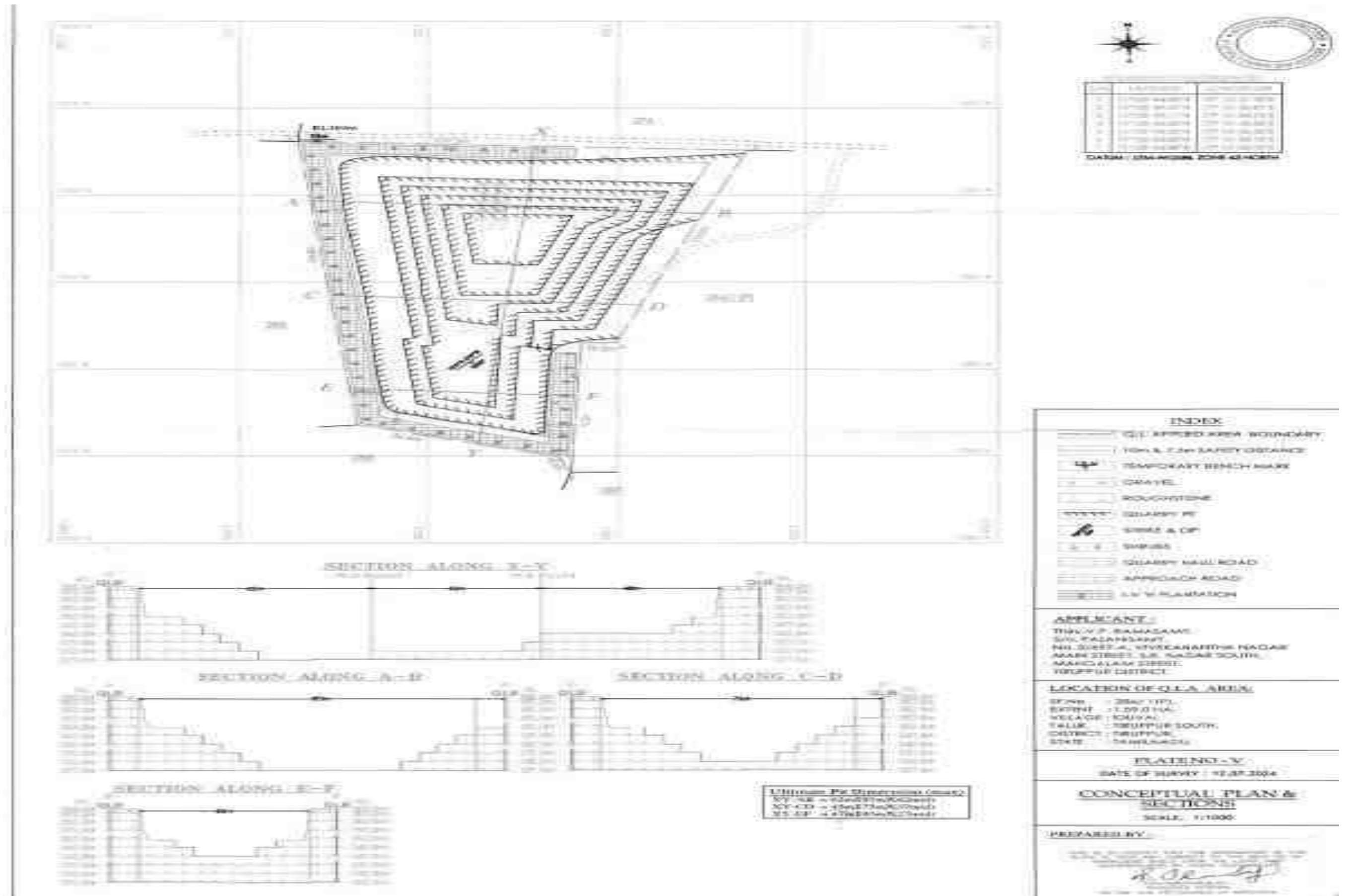


Fig No. 2.13: Conceptual plan of V.P. Ramasamy, Rough stone and gravel quarry

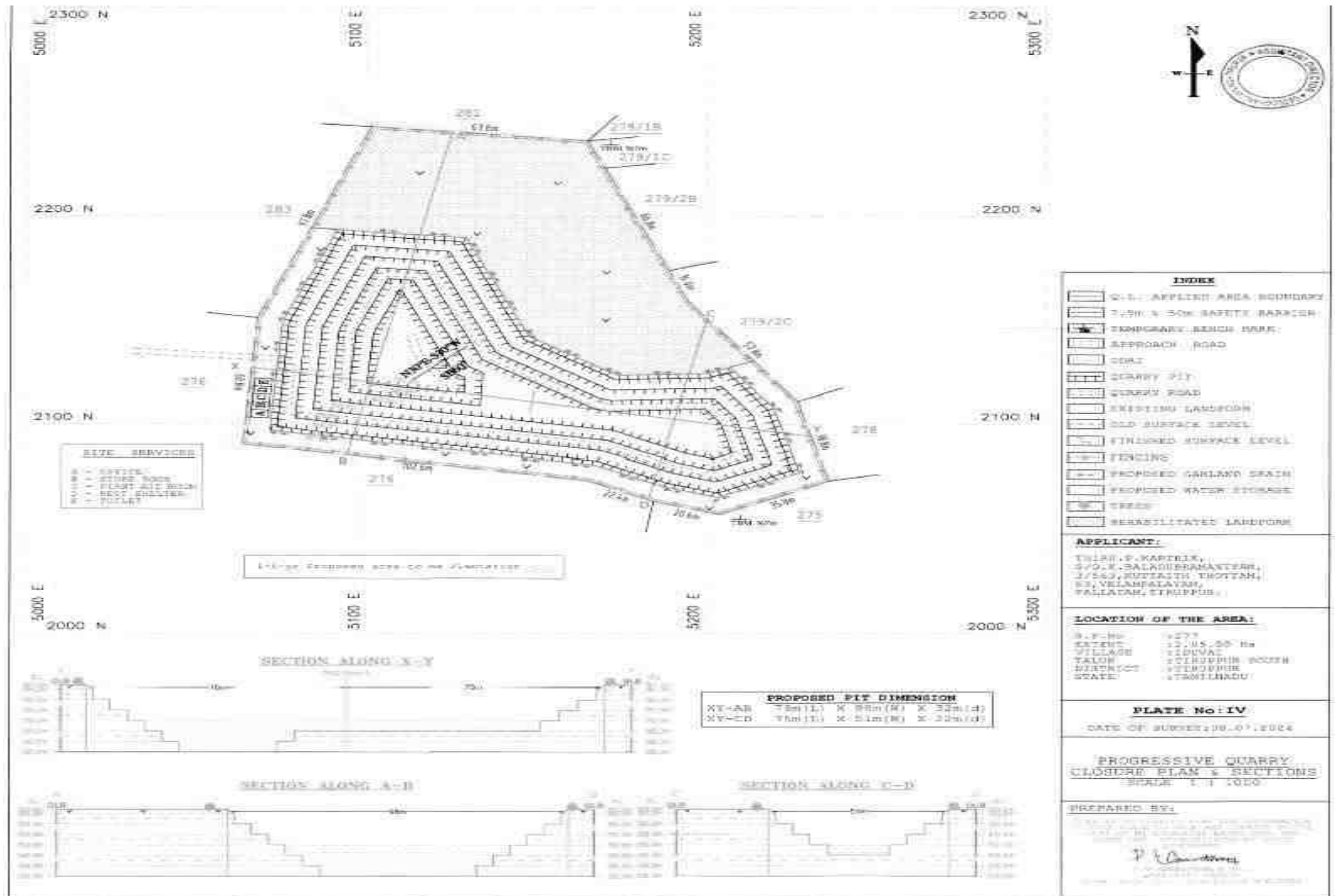


Fig No. 2.14: Conceptual plan of B. Karthik, Rough stone and gravel quarry

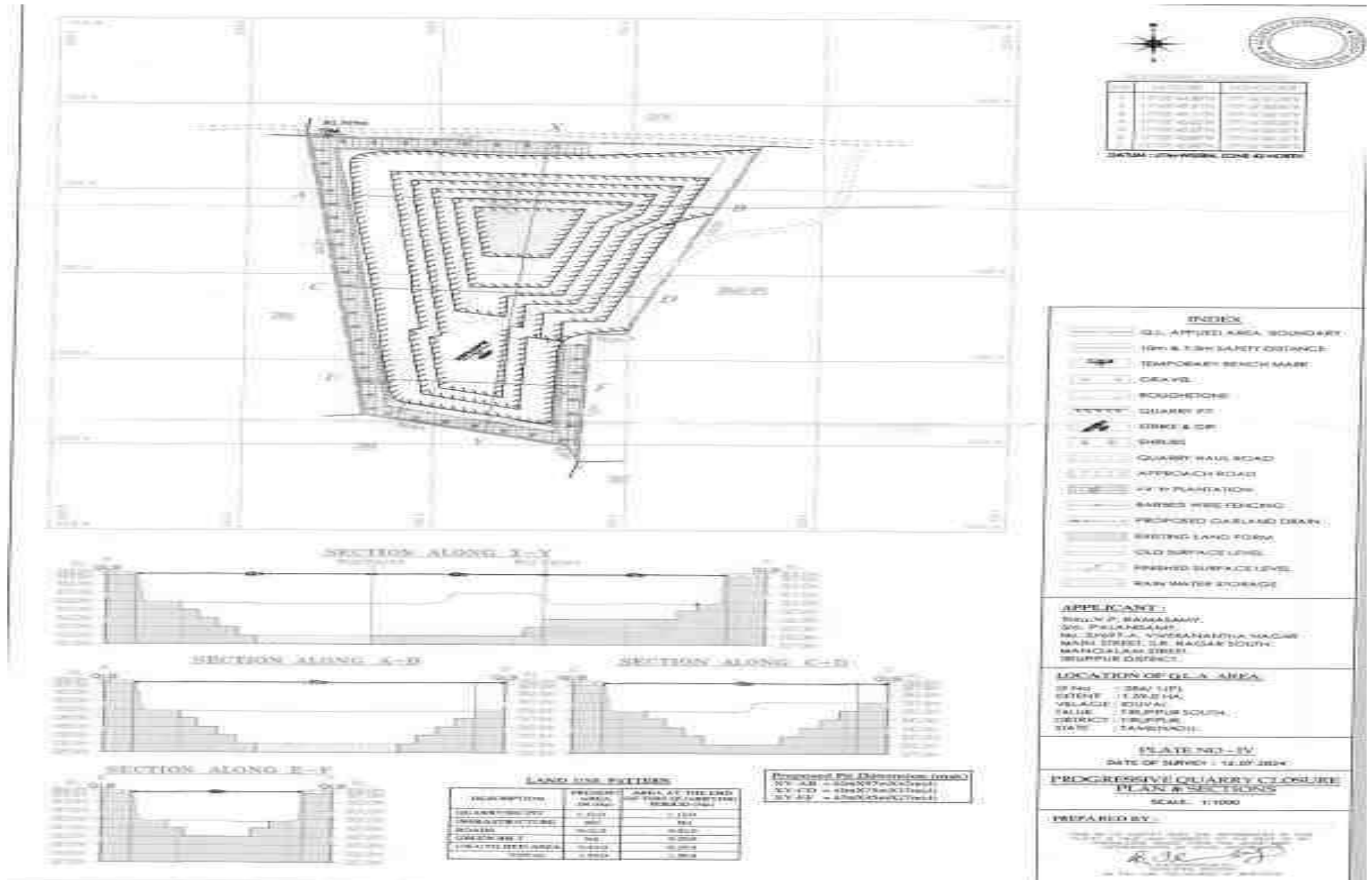


Fig. No. 2. 15: progressive Quarry Closure Plan and Section of V.P. Ramasamy rough stone and gravel quarry

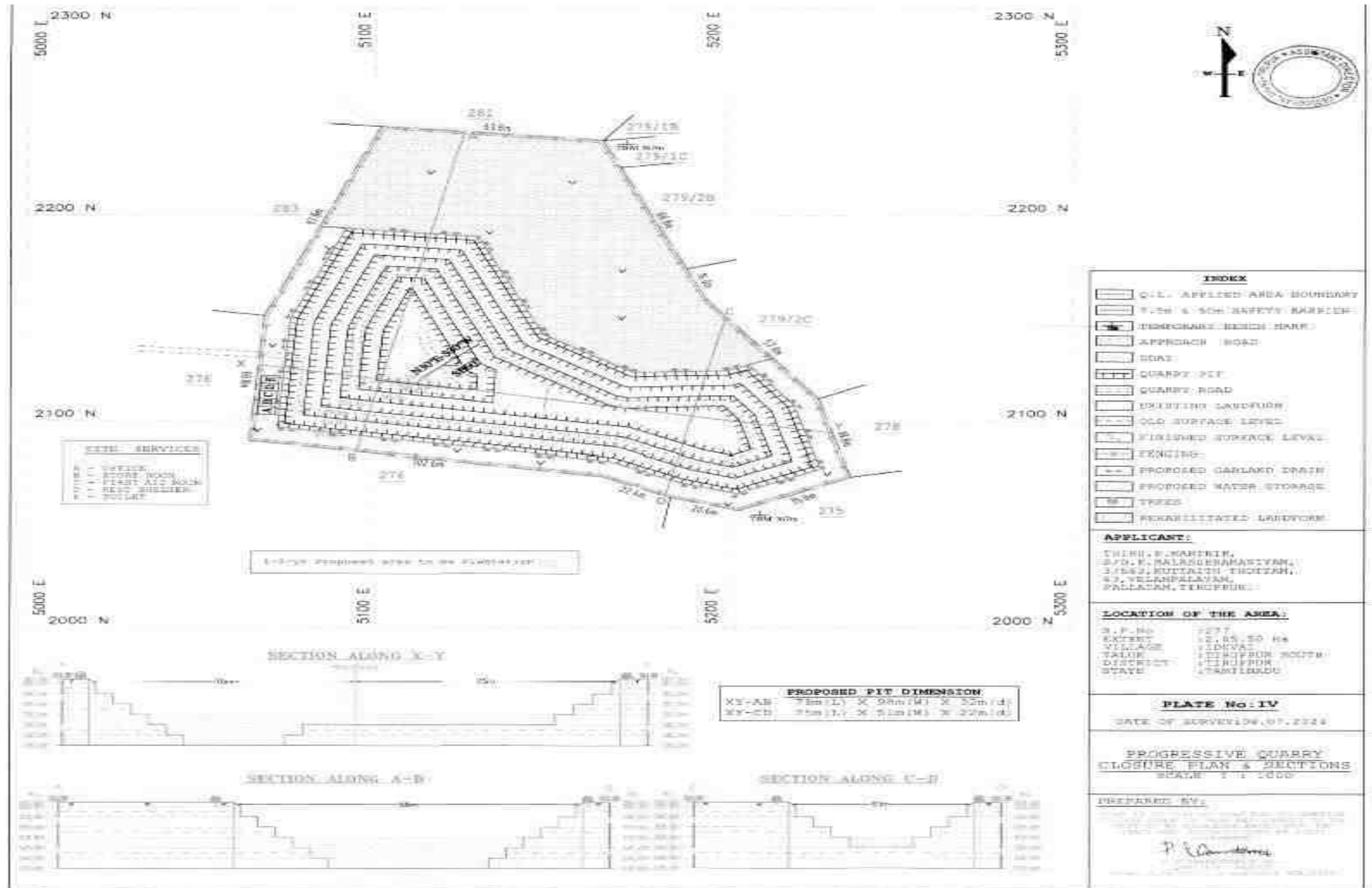


Fig. No. 2. 16: progressive Quarry Closure Plan and Section of B. Karthik rough stone and gravel quarry

2.12: Employment Potential (Management & Supervisory personal)

Table No. 2.14: Employment Potential of V.P. Ramasamy, Rough stone and gravel quarry

Designation	Present Employment position	Employees Requirement	Total
a) Supervisory category			
Geologist	-	1	1
b) Skilled labour			
Mine Foreman	-	1	1
Blaster/Mate	-	1	1
Excavator– Operator	-	1	1
Tipper Driver	-	2	2
Water sprinkler Driver	-	1	1
Jack-Hammer Drillers	-	8	8
c) Unskilled			
Security	-	1	1
Labour & Helper	-	2	2
Co-operator and Cleaner	-	4	4
Total	-	22	22

Table No. 2.15: Water Requirements (3.5 KLD) - V.P. Ramasamy, Rough stone and gravel quarry

Purpose	Quantity calculation in KLD	Source
Mine site (material transportation & plantation)		
Dust Suppression	1.7KLD	The required water will be met from rainwater accumulated in mine pit (when available) and from the approved water vendors.
Green Belt	0.8KLD	The required water will be met from rainwater accumulated in mine pit (when available) and from the approved water vendors.
Domestic (for labors)		
Sanitation & Drinking	1.0 KLD	Approved water vendors
Total	3.5 KLD	

Table No. 2.16: Employment Potential of B. Karthik, Rough stone and gravel quarry

Designation	Present Employment position	Employees Requirement	Total
a) Supervisory category			
Mine manager	-	1	1
Geologist	-	1	1
c) Skilled labour			
Mine Foreman	-	1	1
Blaster/Mate	-	1	1
Excavator– Operator	-	2	2
Tipper Driver	-	3	3
Water sprinkler Driver	-	1	1
Jack-Hammer Drillers	-	12	12
c) Unskilled			
Security	-	1	1
Labour & Helper	-	2	2
Co-operator and Cleaner	-	6	6
Total	-	31	31

Table No. 2.17: Water Requirements (3.5 KLD) - B. Karthik, Rough stone and gravel quarry

Purpose	Quantity calculation in KLD	Source
Mine site (material transportation& plantation)		
Dust Suppression	1.7KLD	The required water will be met from rainwater accumulated in mine pit (when available) and from the approved water vendors.
Green Belt	0.8KLD	The required water will be met from rainwater accumulated in mine pit (when available) and from the approved water vendors.
Domestic (for labors)		
Sanitation & Drinking	1.0 KLD	Approved water vendors
Total	3.5 KLD	

2.13 Amenities of four proposed quarries

2.13.1 Sanitary facilities

Semi-permanent latrines & urinals shall be maintained at convenient places for use of labours as per the provisions of Rule (33) of the main rules, 1955 separately for males and Females. Washing facilities shall also be arranged as per rule (36) of the mines Rules, 1955.

2.13.2 First Aid facility

First Aid station as per provisions under Rule (44) of the Mines Rules, 1955 will be provided and First aid kits kept in mines office room, the qualified first aid personnel should be appointed or nominated to attend emergency first aid treatment.

In case of eventuality, the victim will be given first aid immediately at the site and the injured person will be taken to the hospital located in Palladam. The competent and statutory of Foreman / Mate / Permit Manager will be in charge of the First aid.

2.13.3 Labour Health

Periodic medical examination has to be made for occupational health once in a year in addition to attending medical treatment of occupational injuries under Rule 45 (A).

2.13.4 Precautionary safety measures to the Labourer

Safety provisions like helmet, goggles, safety belt, safety shoes etc., have to be provided as per the circulars and amendments made for Mine labours under guidance of DGMS.

Necessary training will be conducted once in a year to all the employees with the help of qualified and experienced officers to train about the safe and systematic quarrying operation

2.13.5 The Child labor Employment

As per the Mines Act, 1952, no child labors below 18 years of old were engaged for any work in the quarry.

2.14 Project Cost/operational cost /investment

Proposed financial estimate / budget for (EMP) Environment Management

2.14.1 a) V. P. Ramasamy rough stone quarry.

i.	Land Cost	17,61,000
ii.	Machinery to be used	10,00,000
iii.	Fencing of the lease area	1,56,000
iv.	Laborers Shed	3,00,000
v.	sanitary facility	80,000
vi.	first aid & room accessories	50,000
vii.	drinking water facilities	1,00,000
viii.	sanitary arrangements	50,000
ix.	safety kit	50,000
x.	water sprinkling	6,00,000

xi.	Garland	96,000
xii.	green belt etc,	1,60,000
Total cost		44,03,000

b) EMP Cost (per year)

	Air quality monitoring	Rs. 52,000/-
	Water quality sampling	Rs. 18,000/-
	Noise monitoring	Rs. 2,000/-
	Ground vibration	Rs. 4,000/-
Total cost		Rs 76,000/-
Total EMP Cost For the five-Year period is		Rs. 3,80,000/-
	Description	Amount (Rs.)
	A. Operational Cost	Rs .44,03,000/-
	B. EMP Cost	Rs. 3,80,000/-
	Total project cost (A+B)	Rs .48,83,000/-
	The applicant Indents to involve corporate environment responsibilities (CER) activity like Water Purifier, Plantation, Books to Library, sanitary facility and as per requirement to the Iduvai Government School at 2.0% from the total project cost. The Cost would be around Rs. 96,000/-.	Rs. 96,000/-
	If the concerned authority is directed to modify the CER cost and mode of utilization of the cost, the same will be implement by the applicant.	
Total cost		Rs.48,79,000/-

2.14.2.a) B. Karthik, Rough stone and gravel quarry.

i.	Land Cost	22,71,000
ii.	Machinery to be used	20,00,000
iii.	Fencing of the lease area	1,74,000
iv.	Laborers Shed	3,00,000
v.	sanitary facility	80,000

vi.	first aid & room accessories	50,000
vii.	drinking water facilities	1,00,000
viii.	sanitary arrangements	50,000
ix.	safety kit	50,000
x.	water sprinkling	4,00,000
xi.	Garland	1,44,000
xii.	green belt etc,	3,50,000
Total cost		Rs. 59,69,000

b) EMP Cost (per year)

	Air quality monitoring	Rs. 52,000/-
	Water quality sampling	Rs. 18,000/-
	Noise monitoring	Rs. 2,000/-
	Ground vibration	Rs. 4,000/-
Total cost		Rs 76,000/-
Total EMP Cost For the five-year period is Rs. 3,80,000/-		
	Description	Amount (Rs.)
	A. Operational Cost	Rs. 59,69,000
	B. EMP Cost	Rs. 3,80,000
	Total project cost (A+B)	Rs. 63,49,000
	The applicant Indents to involve corporate environment responsibilities (CER) activity like Water Purifier, Plantation, Books to Library, sanitary facility and as per requirement to the Iduvai Government School at 2.0% from the total project cost. The Cost would be around Rs.1,27,000/-. If the concerned authority is directed to modify the CER cost and mode of utilization of the cost, the same will be implement by the applicant.	Rs. 1,27,000
	Total cost	Rs. 64,76,000

2.15 End Use

The excavated rough stone is used for building's basement stones and other infrastructure development work in and around the district.

CHAPTER – 3: DESCRIPTION OF THE ENVIRONMENT

3.0 BASELINE ENVIRONMENTAL STATUS

3.1 Introduction

The chapter describes the existing environmental settings in the study area and is based upon the secondary information collected from the published sources, reconnaissance survey, primary socio-economic and environmental monitoring of air, noise, soil, ground and surface water in the study area.

For the purpose of EIA studies, mine lease area was considered as the core zone and area outside the mine lease boundary up to 10km radius from the lease boundary was considered as buffer zone. Collection of base line data is an integral part of the preparation of environmental impact assessment reports. The baseline monitoring study has been carried out during March, 2025 – May 2025 to assess the existing environmental scenario in this area.

The Various environmental components studied as a part of the baseline study are discussed in the following project activities are:

- ❖ Air Environment
- ❖ Noise Environment
- ❖ Water Environment
- ❖ Soil Environment
- ❖ Ecology and Biodiversity
- ❖ Socio-economic
- ❖ Land Environment

3.2 Methodology

The guiding factors of the present baseline study are the requirements laid down by the Central Pollution Control Board (CPCB) and guidelines as per the Environmental Impact Assessment Notification.

- In order to assess the Ambient Air Quality (AAQ), samples of ambient air were collected by installation of respirable dust sampler and fine particulate matter sample at different locations within the study area and analyzed to find out the existing status of air quality.
- Ground water samples were collected from the existing tube wells, while samples for surface water were collected from river & small ponds. The samples were analyzed for parameters necessary to determine water quality (based on IS: 10500 criteria) and those, which are relevant from environmental impact point of view of the proposed river bed mining project.

- Soil samples were collected and analyzed for relevant physical and chemical characteristics in order to assess the impact of the proposed mining on soil.
- Inventory of flora and fauna species present in the area was made through field visits and survey by ecologists.
- Socio-economic data was collected from primary sources through village – level surveys and household visits.
- The land use patterns of the study area were assessed through latest satellite imaging and topographical sheets of Survey of India.

Appropriate methodologies have been followed in preparing the EIA-EMP report. The methodology adopted for the study is outlined below. The sampling locations were selected on the basis of the following:

- Predominant wind directions recorded by the India Meteorological Department (IMD), Tirupur observatory, Tirupur district;
- Existing topography;
- Drainage pattern and location of existing surface water bodies like lakes/ponds, rivers and streams;
- Location of villages/towns/sensitive areas, and;
- Areas, which represent baseline conditions;

3.3 Meteorological Data Recorded at IMD Station, Tirupur Observatory, Tirupur District

The meteorology of the project area plays very important role in dispersion of pollutants and build-up of pollution within the air atmosphere. In the present study, in the month of March, 2025 – May 2025 meteorological data for site specific has been taken to find the dispersion of pollutant concentration. The mixing height, which is an important parameter to express the dispersive potential of atmosphere, has been taken from the atlas of hourly mixing height and assimilative capacity of atmosphere in India.

Table No. 3.1: Summary of the Meteorological data for the study period

S. No	Month	Temperature (°C)		Rainfall (mm)	Humidity (%)	Avg. wind speed (mps)
		Max	Min			
1	March, 2025	34.2	24.3	114	64.4	2.4
2	April, 2025	32.7	20.5		63.2	2.2
3	May, 2025	35.3	22.8		58.6	2.0

3.3.1 Wind Rose

Wind speed and wind direction data is useful in identifying the influence of meteorology on the air quality of the area. The observed wind pattern during the study period is described below. In the present study, in the month of March, 2025 – May 2025 meteorological data have been taken to find the dispersion of pollutant concentration. Wind-rose diagram for the study period is shown given below in fig 3.1.

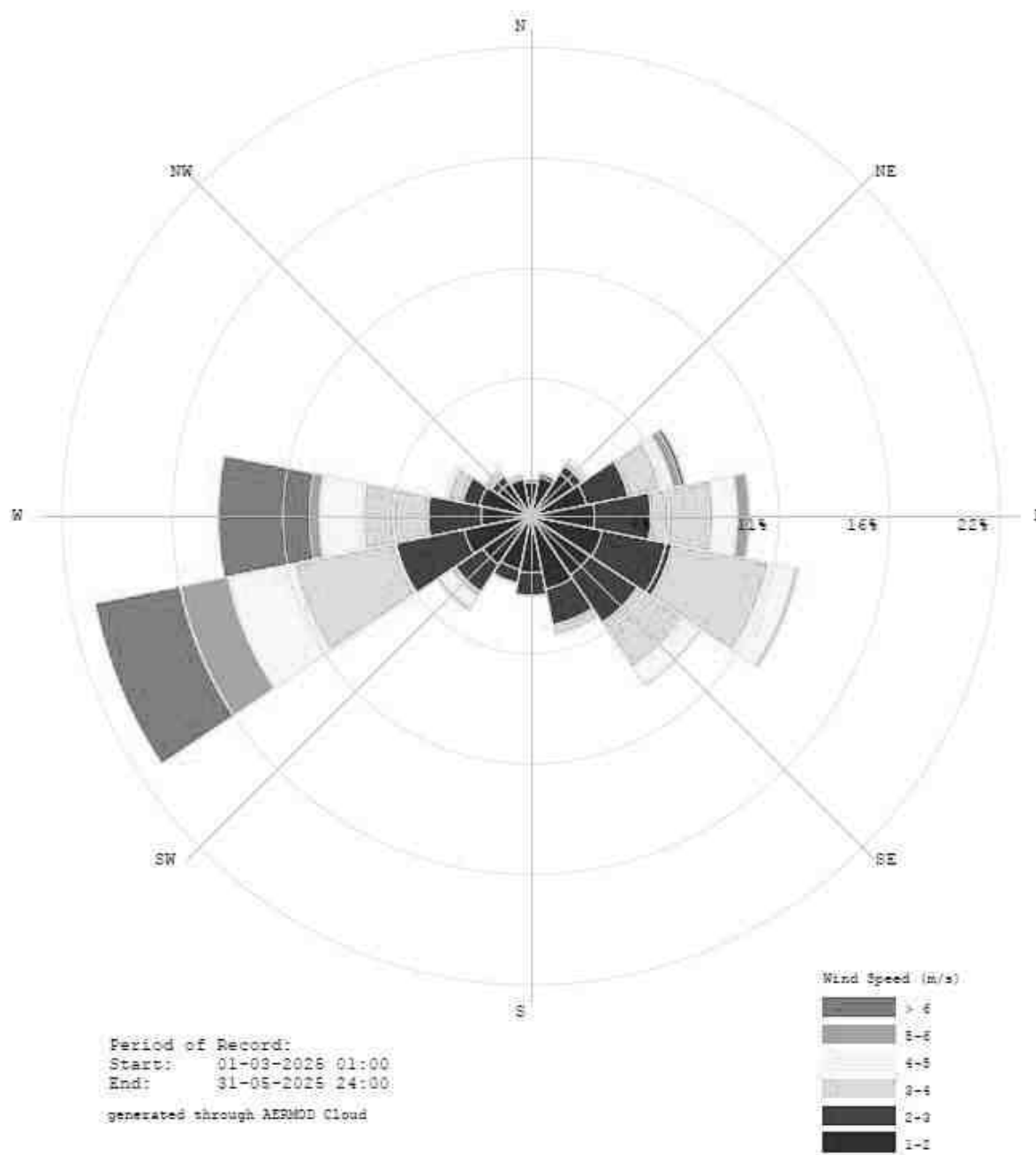


Fig No. 3.1: Wind Rose Pattern for the study period

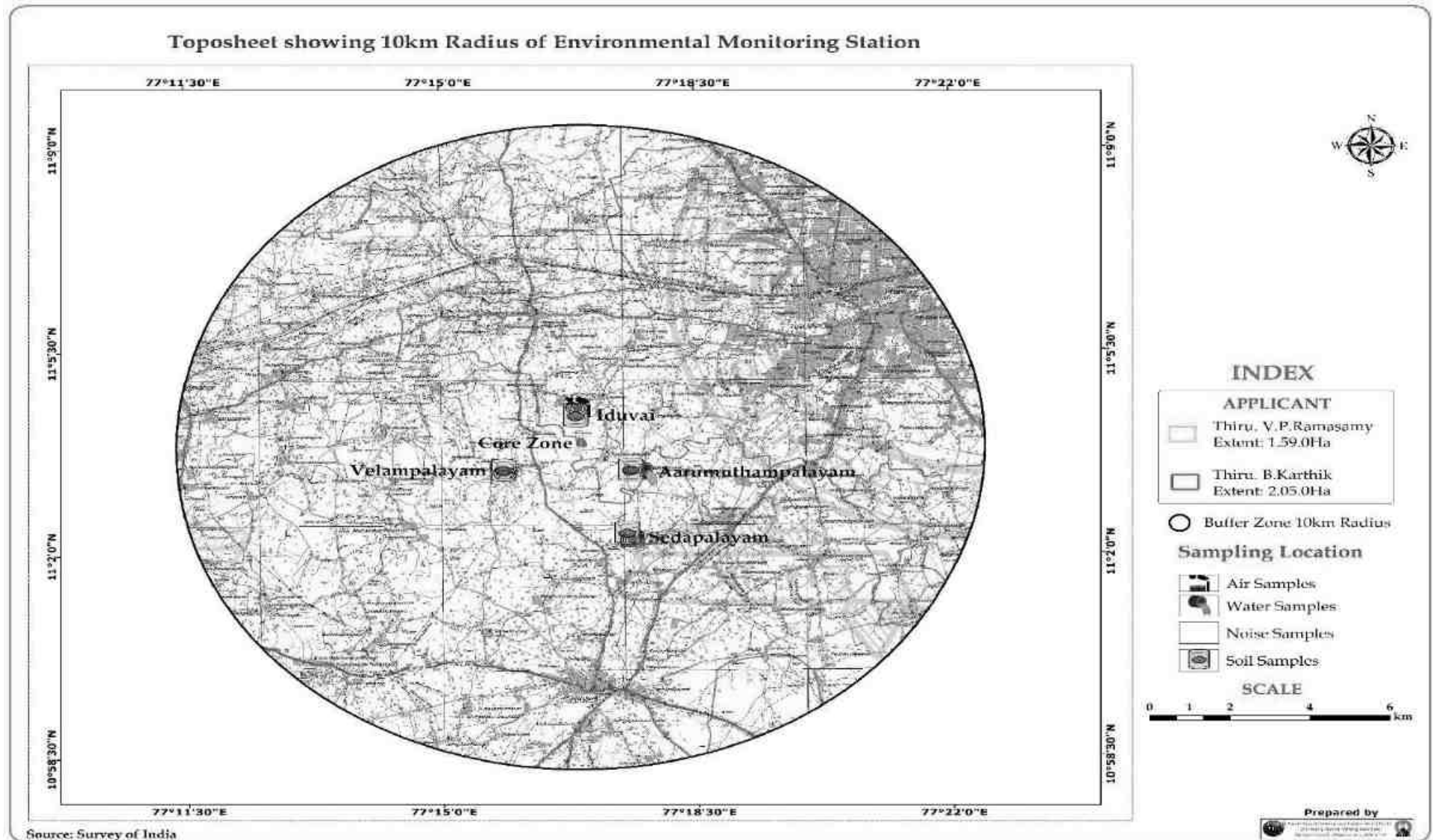


Fig No. 3.2: Geo Referenced Toposheet showing Environmental monitoring station around 10km radius

3.4 AIR ENVIRONMENT

Prevailing air environment i.e. baseline conditions in an area is primarily governed by many factors' activities going on in that area. The pollutant level in atmosphere is also governed by the meteorology, topography, natural settings in terms of plantation, forest cover, vegetation etc., as these factors in combination with each other are responsible for dispersion, diffusion, transportation and assimilation of pollutants in the local air shed.

3.4.1 Ambient Air Monitoring

The prime objective of baseline air quality study (10km radius) is to assess the existing air quality of the area to form base line information. The study area represents mostly rural environment. Ambient air monitoring was carried out at 5 locations. The locations were identified keeping in view of predominant wind directions prevailing during study period, sensitive receptors, human settlements and mining activities around. The details about sampling locations are mentioned below in fig 3.3 and table 3.2.

The existing Ambient Air Quality status (AAQ) has been monitored for parameters PM₁₀, PM_{2.5}, SO₂ and NO₂. Ambient air quality monitoring was carried out at a frequency of two days per week at each location for three months at 8 hour continuously. Respirable dust samplers have been used for monitoring the existing PM₁₀ status and fine dust samplers are used for monitoring PM_{2.5} status in the study area. Methodologies adopted for sampling and analysis were carried out, as per the approved methods of Central Pollution Control Board (CPCB).

Table No. 3.2: Ambient Air Quality Monitoring Locations

Sampling Code	Location	Latitude	Longitude	Distance (km)	Direction
AAQ 1	Cluster core zone	11°03'49.94"N	77°16'53.26"E	--	--
AAQ 2	Iduvai	11° 4'32.47"N	77°16'52.42"E	1.2	N
AAQ 3	Sedapalayam	11° 2'17.08"N	77°17'35.65"E	3.1	SE
AAQ 4	Velampalayam	11° 3'29.39"N	77°15'51.11"E	2.0	W
AAQ 5	Aarumuthampalayam	11° 3'28.32"N	77°17'38.69"E	1.5	E

3.4.2 Monitoring

Monitoring station-wise minimum and statistical analysis (minimum, maximum, arithmetic mean) for measured levels of PM₁₀, PM_{2.5}, SO₂ and NO₂ in study area for the monitoring period are shown parameter wise in table 3.3 and graphical representation of concentration pollutants are showing in fig 3.5.

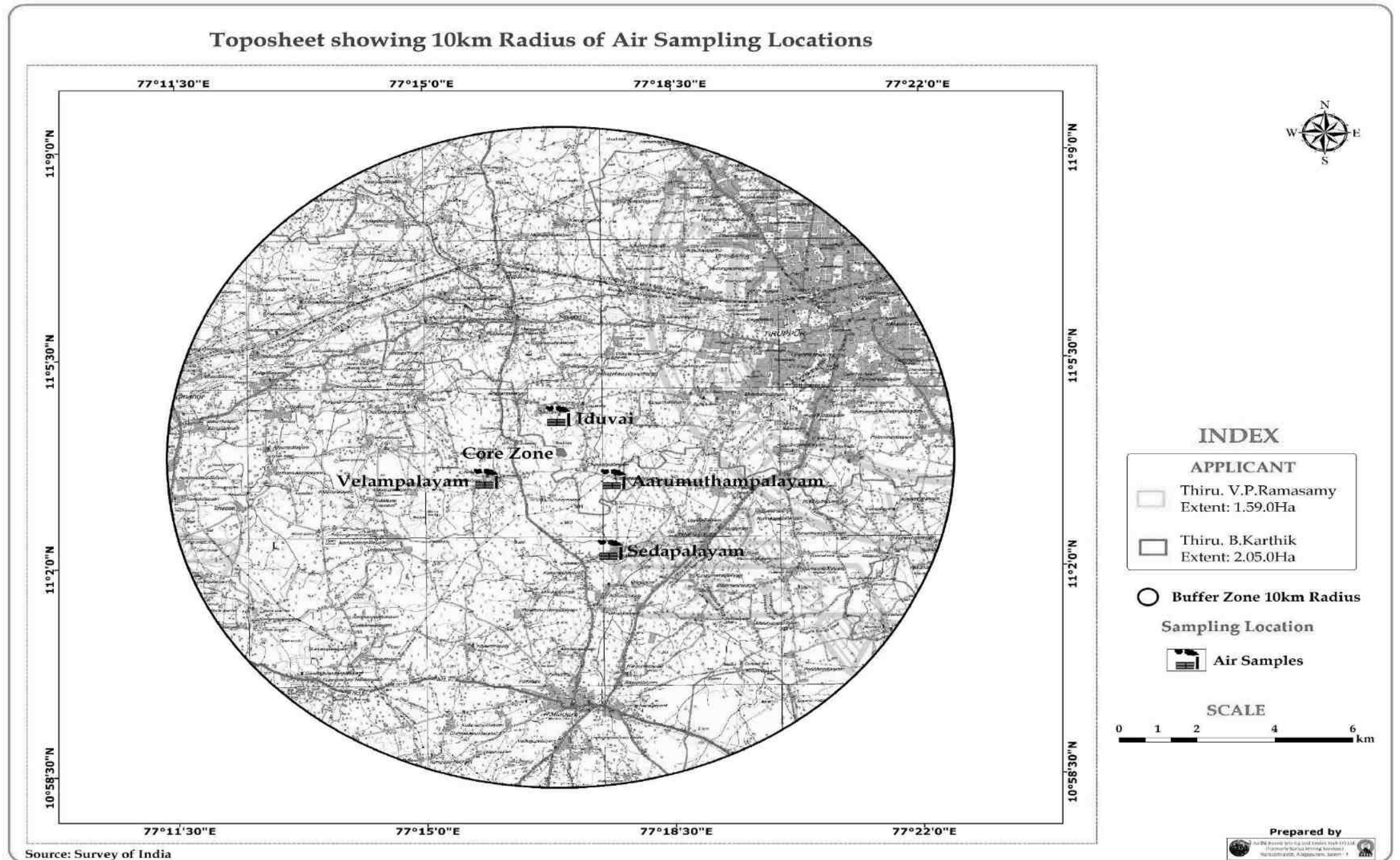


Fig No. 3.3: Geo Referenced Toposheet showing Air sampling station around 10km radius

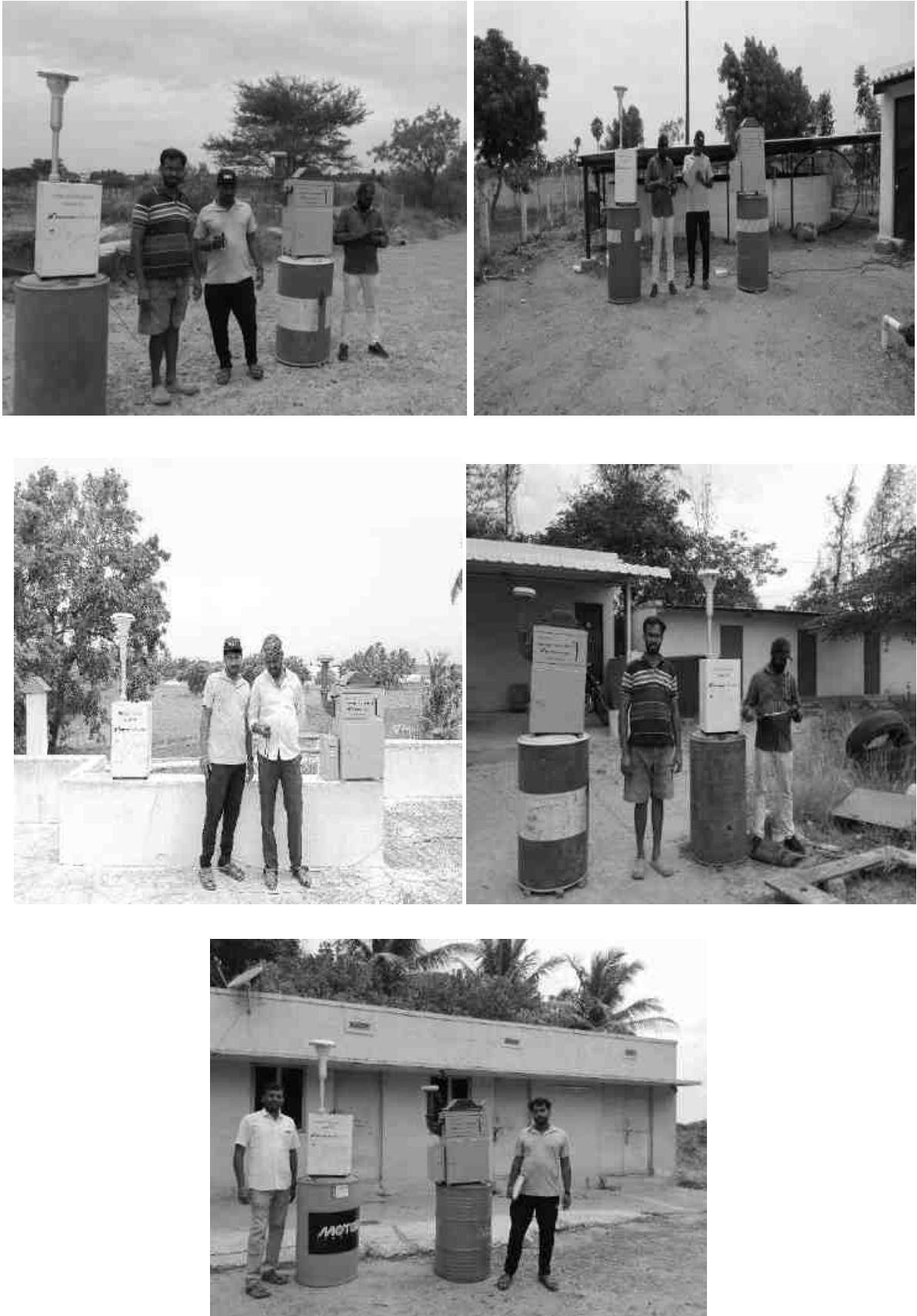


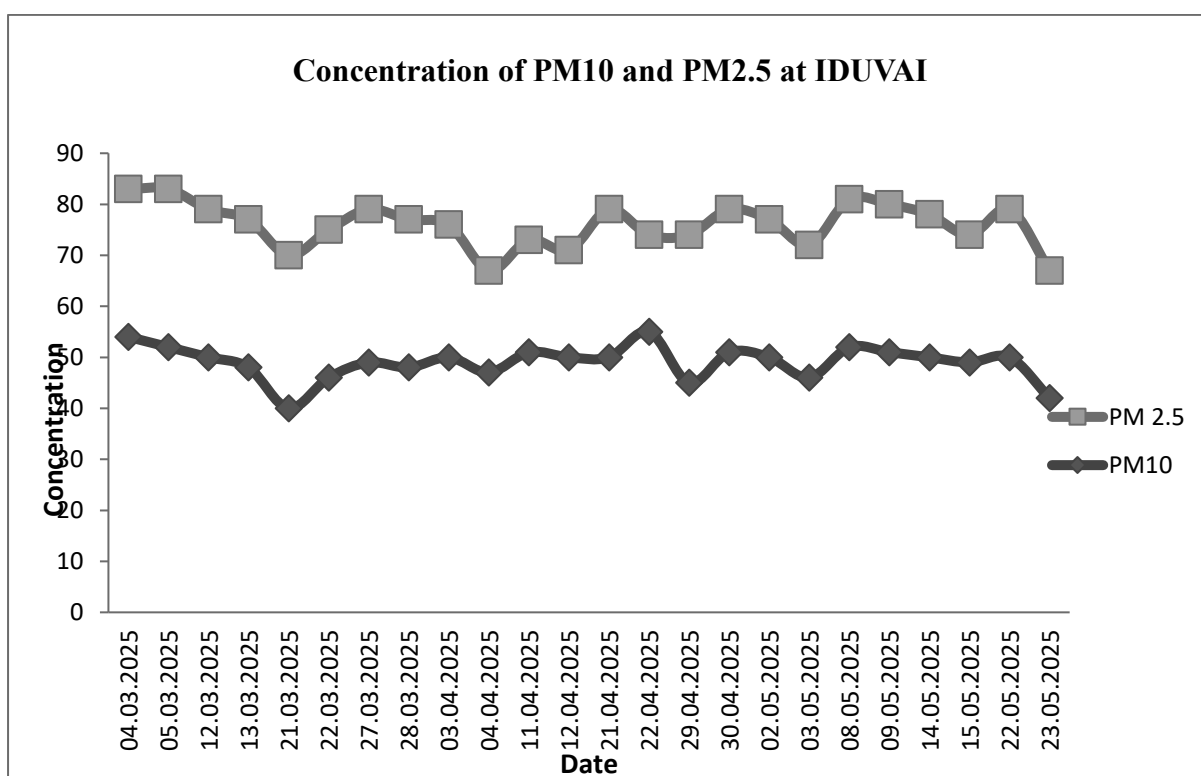
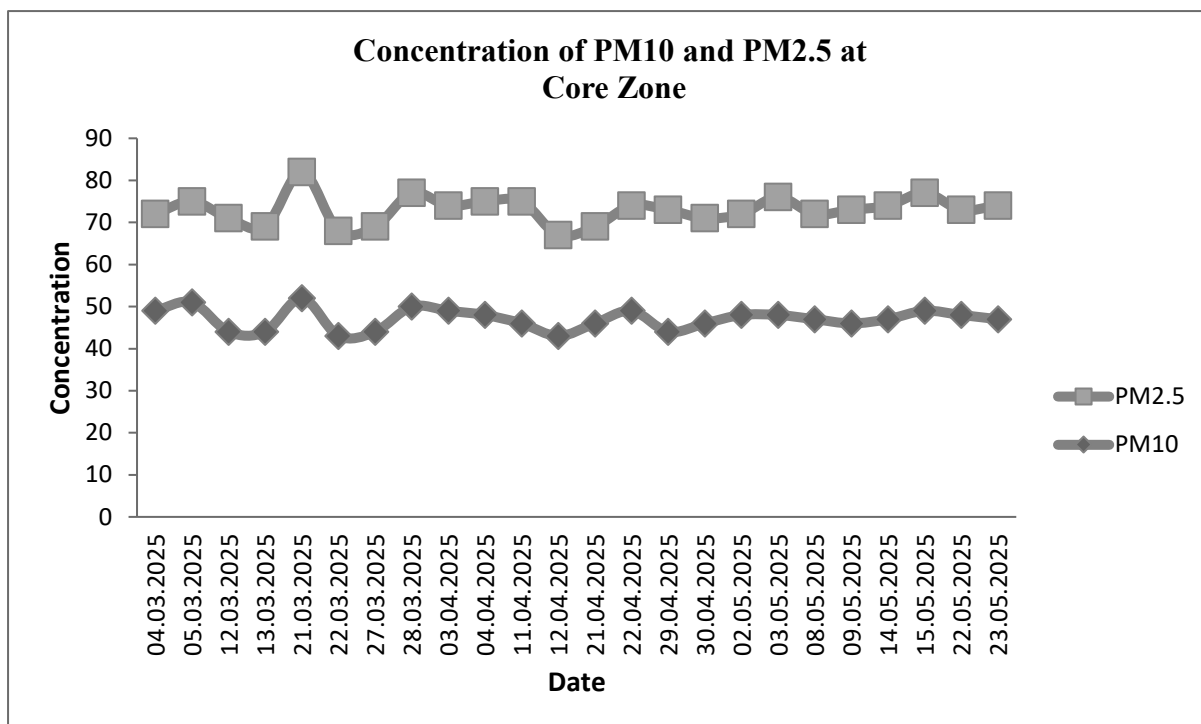
Fig No. 3.4: Air monitoring locations at Cluster core and Buffer zone

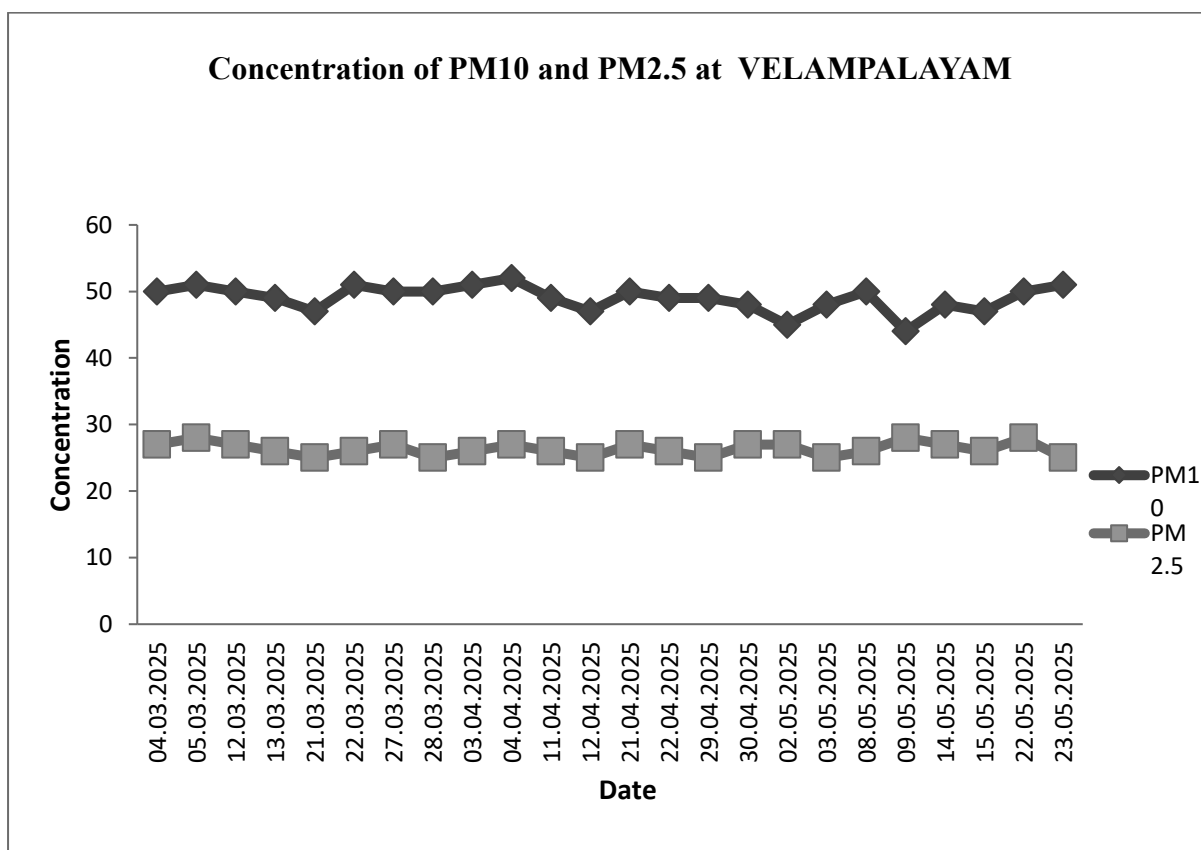
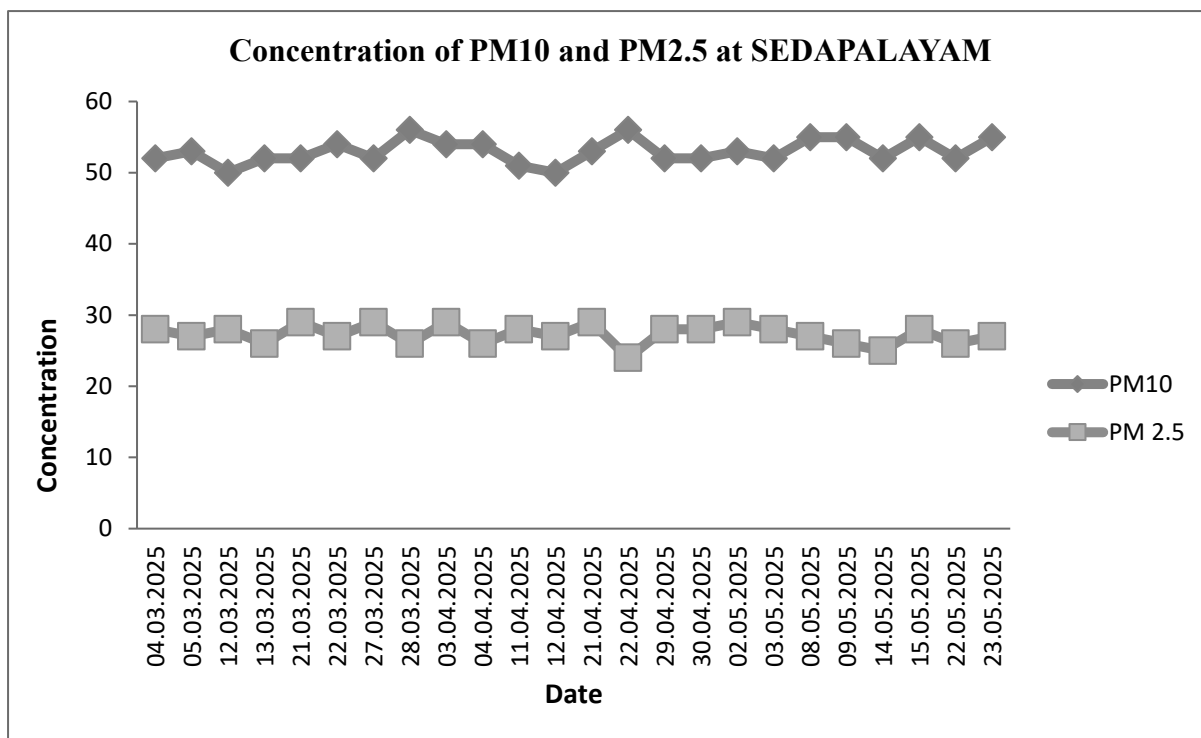
3.4.3. Monitoring Result

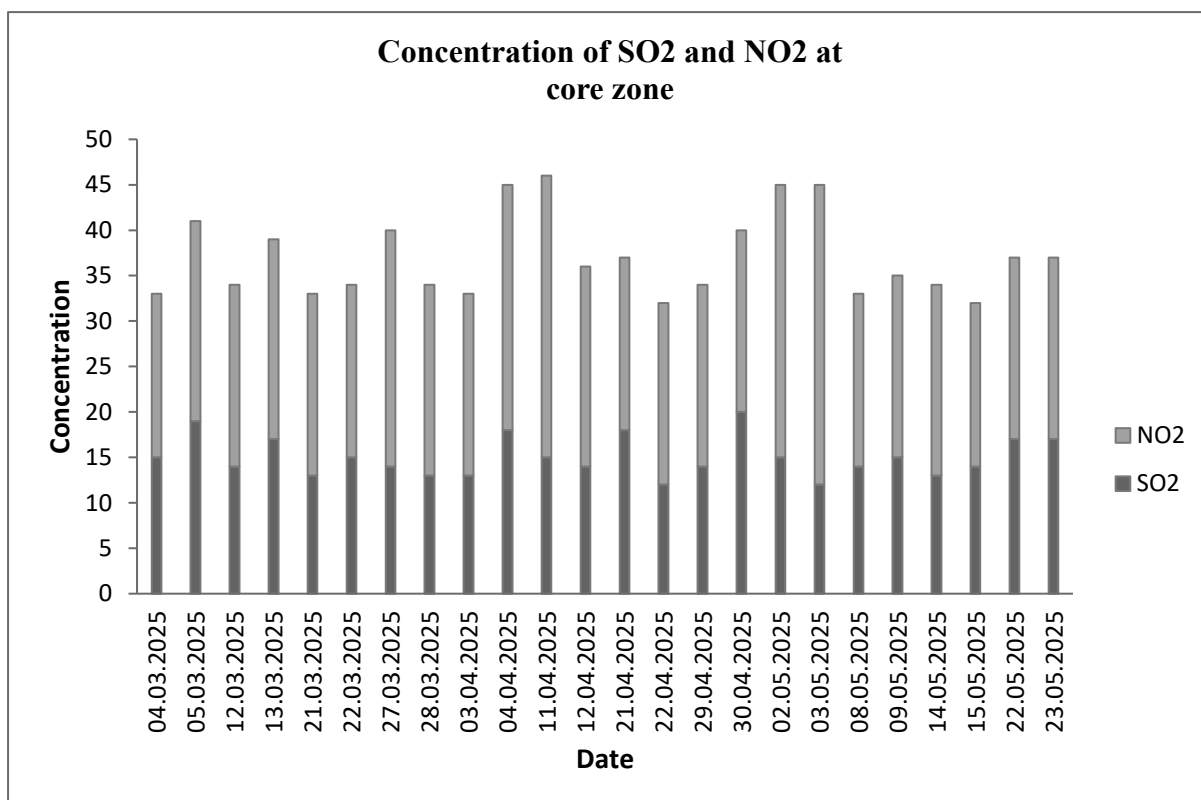
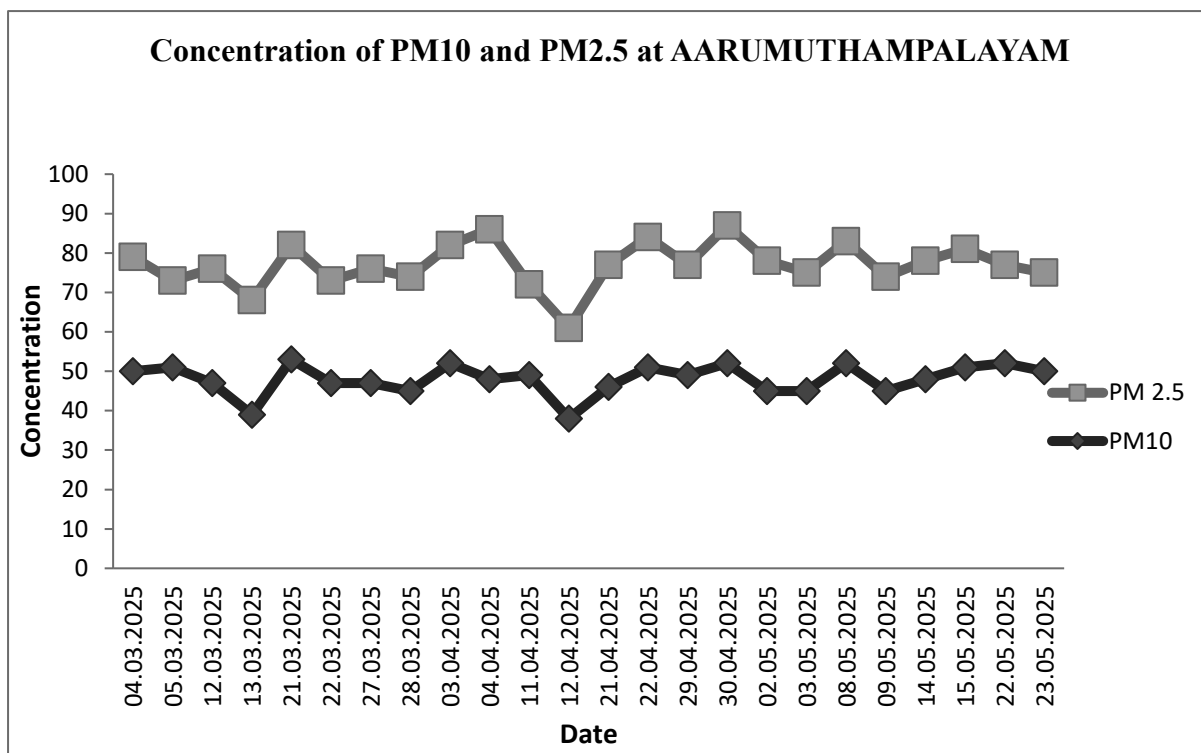
Statistical analysis of Ambient Air Quality in the study area for the monitoring period is shown parameter wise in table 3.3.

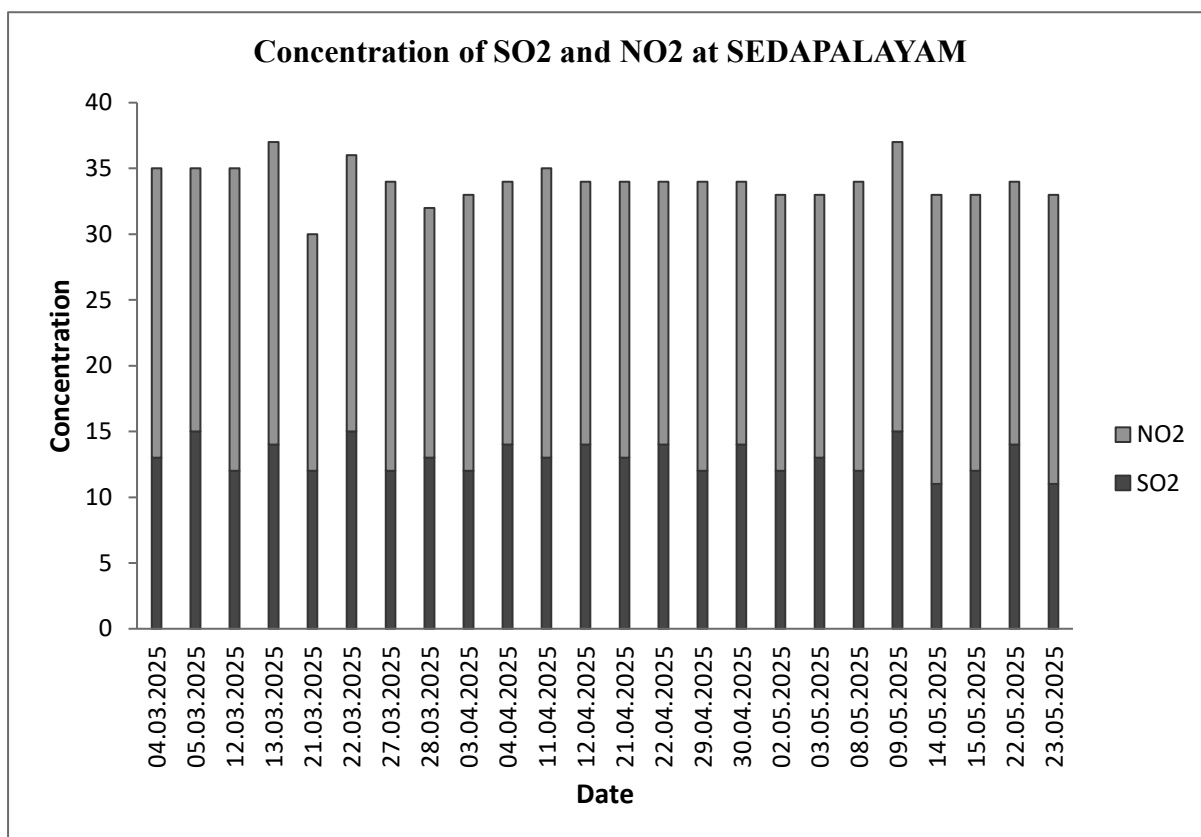
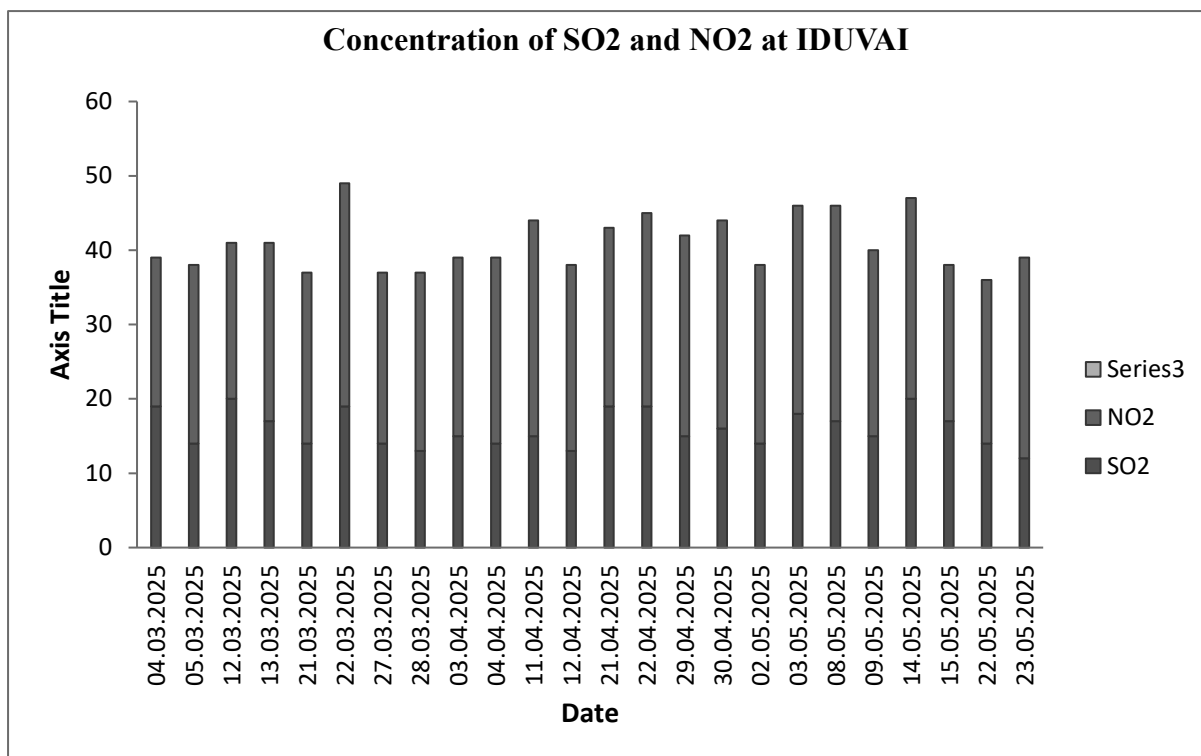
Table No. 3.3: Summary of Ambient Air Quality Results

Code	Locations	Parameters	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m)
AAQ 1	Cluster core zone	Minimum	36	17	9	14
		Maximum	52	30	20	33
		Average	47	26	15	22
		98%	51.54	29.54	20	32
AAQ 2	Iduvai	Minimum	42	15	11	14
		Maximum	57	32	22	30
		Average	49	27	16	25
		98%	55	30.54	20	30
AAQ 3	Sedapalayam	Minimum	44	18	7	11
		Maximum	57	30	17	25
		Average	53	27	13	21
		98%	56	29	15	23
AAQ 4	Velampalayam	Minimum	39	18	9	17
		Maximum	53	29	19	32
		Average	49	26	15	27
		98%	51.54	28	18	30
AAQ 5	Aarumuthampalayam	Minimum	37	15	9	12
		Maximum	54	39	20	30
		Average	48	29	14	22
		98%	53	36.62	20	24
NAAQS			100	60	80	80









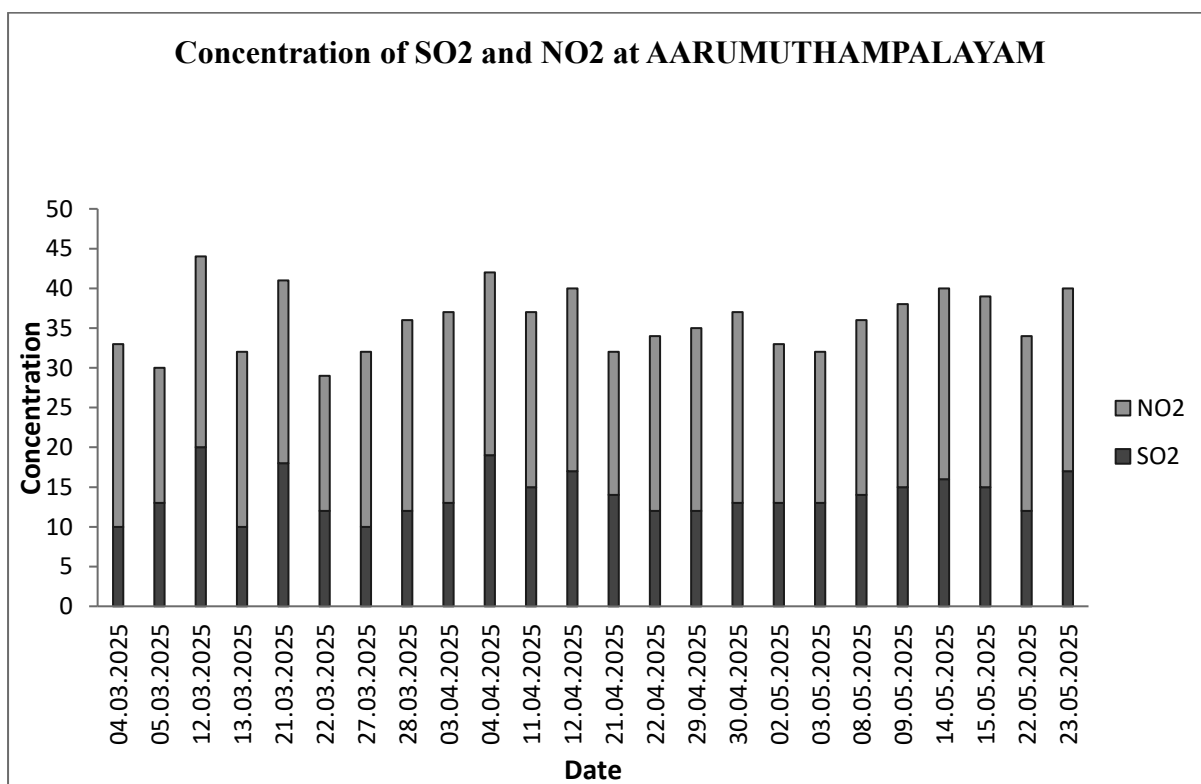
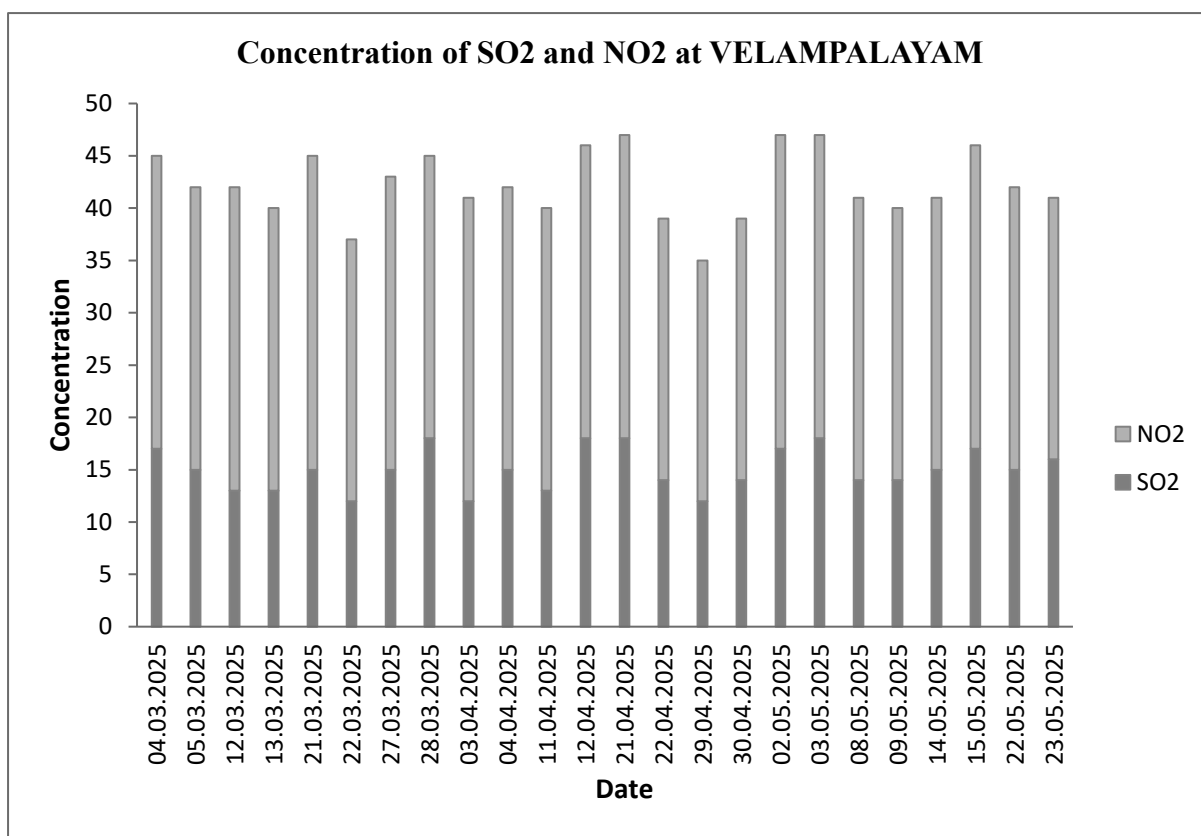


Fig No. 3.5: Variation in Concentration of air pollutants

3.4.4 Observations of Primary Data

The area generally has low levels of pollutants in ambient air, which is well within the National Ambient Air Quality Standards for industrial or rural areas. This is due to the absence of any major pollution generating source in the vicinity.

(i) Particulate Matter (PM_{2.5})

- ✚ The average PM_{2.5} level at five stations was varied from 26µg/m³ to 29µg/m³ for the monitoring period March 2025 to May 2025. The maximum concentration was recorded at Aarumuthampalayam village of 39µg/m³ and the minimum concentration was recorded at Iduvai village of 15µg/m³.

(ii) Particulate Matter (PM₁₀)

- ✚ The average PM₁₀ level at five stations was varied from 47µg/m³ to 53µg/m³ for the monitoring period March 2025 to May 2025. The maximum concentration was recorded at Iduvai and Sedapalayam of 57µg/m³ and the minimum concentration was recorded at Sedapalayam village of 44 µg/m³.

(iii) Sulphur Dioxide (SO₂)

- ✚ The average SO₂ level at five stations was varied from 13µg/m³ to 16µg/m³ for the monitoring period March 2025 to May 2025. The maximum concentration was recorded at 22 µg/m³ in Iduvai. The minimum concentration was recorded at Sedapalayam village of 7µg/m³.

(iv) Nitrogen Dioxide (NO₂)

- ✚ The average NO₂ level at five stations was varied from 21µg/m³ to 27µg/m³ for the monitoring period March 2025 to May 2025. The maximum concentration was recorded at Core Zone of 33µg/m³ and the minimum concentration was recorded at Velampalayam village of 17 µg/m³.
- ✚ Based on comparison study of results with NAAQS for monitored parameters, it is interpreted that ambient air quality of the monitored locations can be considered good as all the results of tested parameters are well within the limits of NAAQS prescribed by CPCB.

3.5 NOISE ENVIRONMENT

A preliminary reconnaissance was undertaken to identify the major noise generating sources in the area. Five locations (Cluster core area & Buffer zone) were identified based on the activities in the study area, traffic and sensitive areas like hospitals and schools. The noise monitoring locations are shown in fig 3.7. The sampling locations are shown in table 3.4.

The objectives of Noise environment studies are:

- To assess the ambient noise level in the study area.
- To characterize the noise pollution area.
- To predict the temporal changes in the ambient noise level of the area.

The baseline noise levels were taken to assess the Impact of Noise on the workers in the mine site and on the nearby settlements due to mining machineries, movements of vehicles etc. Ten locations were identified based on the activities in the study area in dB (A) scale. Georeferenced Top map showing location of noise sampling is given in the fig 3.6.

Table No. 3.4: Noise Monitoring Stations.

Sl. No	Location	Station code	Distance (km)	Direction
1	Cluster core zone	N1	--	--
2	Iduvai	N2	1.2	N
3	Sedapalayam	N3	3.1	SE
4	Velampalayam	N4	2.0	W
5	Aarumuthampalayam	N5	1.5	E

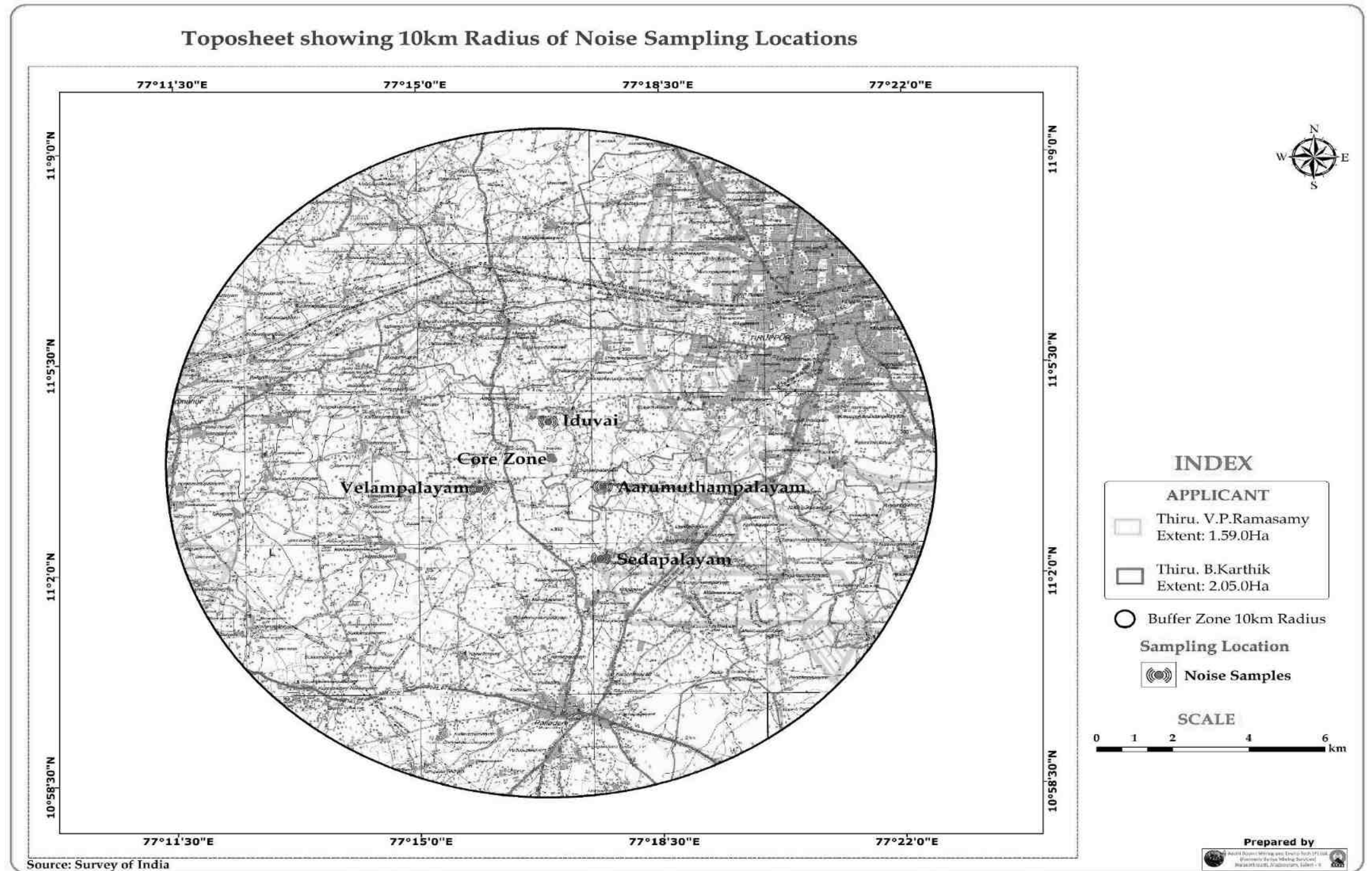


Fig No. 3.6: Geo Referenced Toposheet showing Noise sampling stations around 10km radius

3.5.1 Method of Monitoring

Sound Pressure Level (SPL) was measured at nine locations; one reading per hour was taken for 24 hours. The day time noise levels were monitored during 6 am to 10 pm and night time levels during 10 pm to 6 am at all the monitoring locations within the study area.

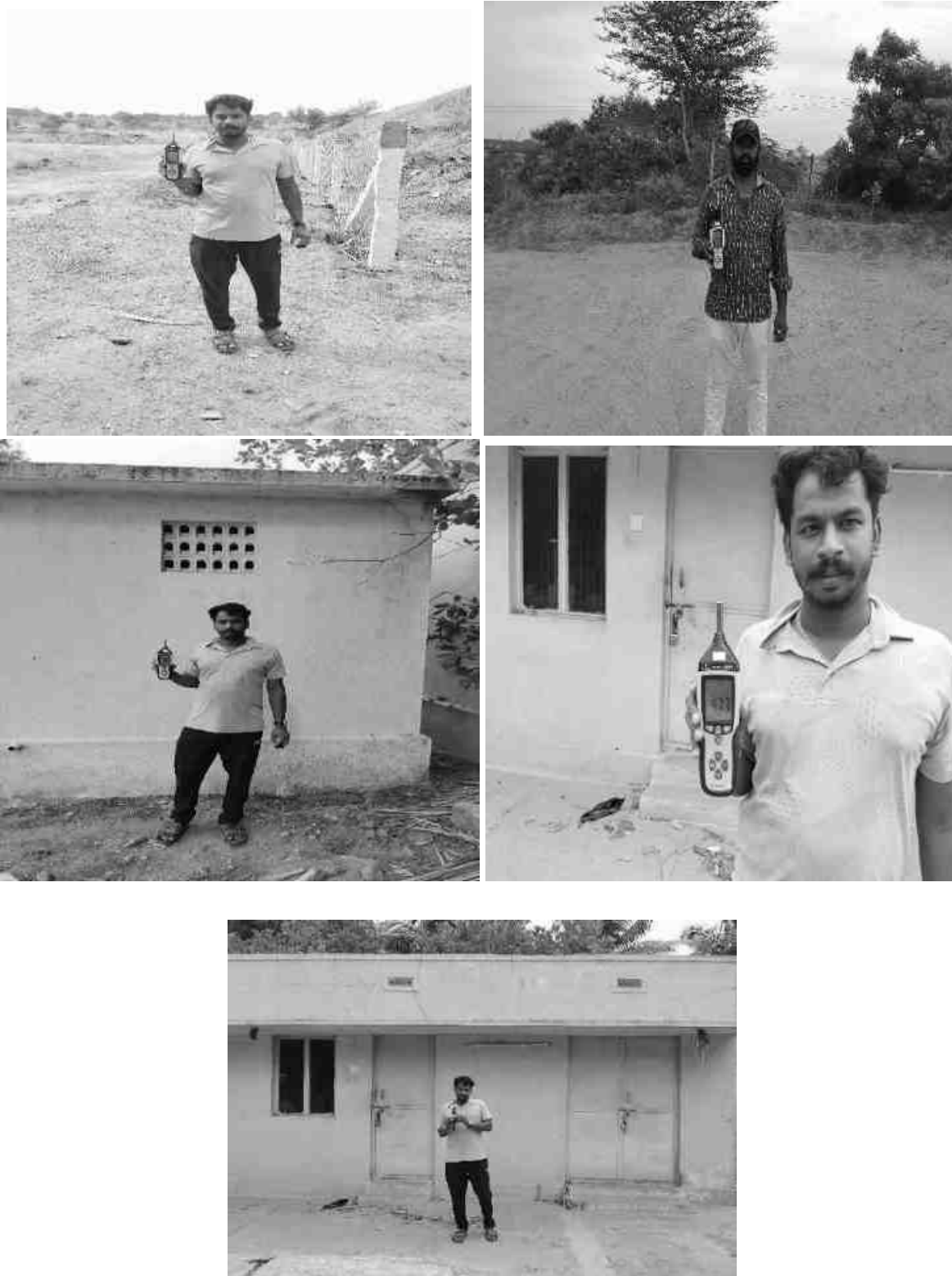


Fig No. 3.7: Noise Monitoring at Cluster core and Buffer zone

For each location, day and night time Leq values have then been computed from the hourly Leq values such that comparison could be made with the national ambient noise standards.

Table No. 3.5: Summary of Ambient Noise Level during study period

Sample code	Location	Decibel dB (A)		TNPCB Standards
		Day Time	Night Time	
N1	Cluster core zone	40.9	36.4	Industrial – 75 dB(A)
N2	Iduvai	36.9	33.4	
N3	Sedapalayam	37.4	33.0	Residential – 55 dB(A)
N4	Velampalayam	39.5	34.6	
N5	Aarumuthampalayam	40.2	35.4	

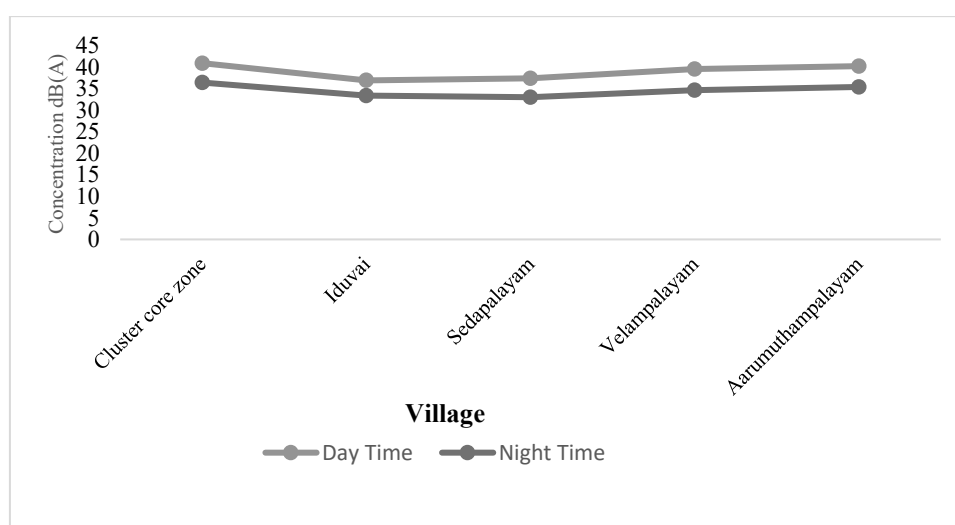


Fig No. 3.8: Ambient Baseline Noise Level

3.5.2 Observations

3.5.2.1 Day Time Noise Levels

The day time noise levels at cluster core zone were observed as 40.9 dB (A) being well within the Industrial area prescribed limit of 75 dB (A) whereas the noise levels at all locations of Buffer zone were observed to be in the range of 36.9 to 40.2 dB (A) being well within the Residential area prescribed limit of 55 dB (A) as per CPCB Standard for Industrial Areas.

3.5.2.2 Night Time Noise Levels

The night time noise levels at all locations of buffer zone villages were observed to be in the range of 33.0 to 35.4 dB (A) being well within the residential area prescribed limit of 45 dB (A) whereas the Noise level in the cluster core zone was observed as 36.4 dB (A) which is also within the prescribed limit of 70 dB (A) as per CPCB Standard for Industrial Areas.

3.6 WATER ENVIRONMENT

Assessment of baseline data on water Environment includes:

- a) Identification of surface and ground water sources.
- b) Collection of water samples.
- c) Analyzing water samples collected for Physico-chemical and biological parameters.

3.6.1 Selection of Sampling Stations

The samplings were taken from the identified monitoring locations within the 10km radius of the study area. Water samples were collected to study the water quality of the study area.

3.6.2 Water Quality

Water samples from various locations in and around the project site within 10 km radius were collected for assessment of the physic-chemical and bacteriological quality to know the baseline status of water quality. Parameters for analysis of water quality were selected based on the utility of the particular source of water as per MoEF & CC guidance. Methodologies adopted for sampling and analysis of water in according to the Bureau of Indian Standards. The parameters thus analyzed were compared with IS10500:2012. Details of water sampling locations are present in table 3.6. In addition, water quality details are given in the table 3.7. Locations of cluster core and buffer zone water samples are given in the fig 3.9. The following image of Geo referenced Topomap showing locations of water samples are given in the fig 3.10.

Table No. 3.6: Water Sampling Locations

Sampling code	Location	Latitude	Longitude	Distance (km)	Direction
WQ 1	Cluster Core Zone	11°03'49.94"N	77°16'53.26"E	--	--
WQ 2	Iduvai	11° 4'26.44"N	77°16'51.21"E	1.2	N
WQ 3	Sedapalayam	11° 2'16.68"N	77°17'36.67"E	3.1	SE
WQ4	Velampalayam	11° 3'26.30"N	77°15'50.10"E	2.0	W
WQ 5	Aarumuthampalayam	11° 3'23.78"N	77°17'47.01"E	1.5	E

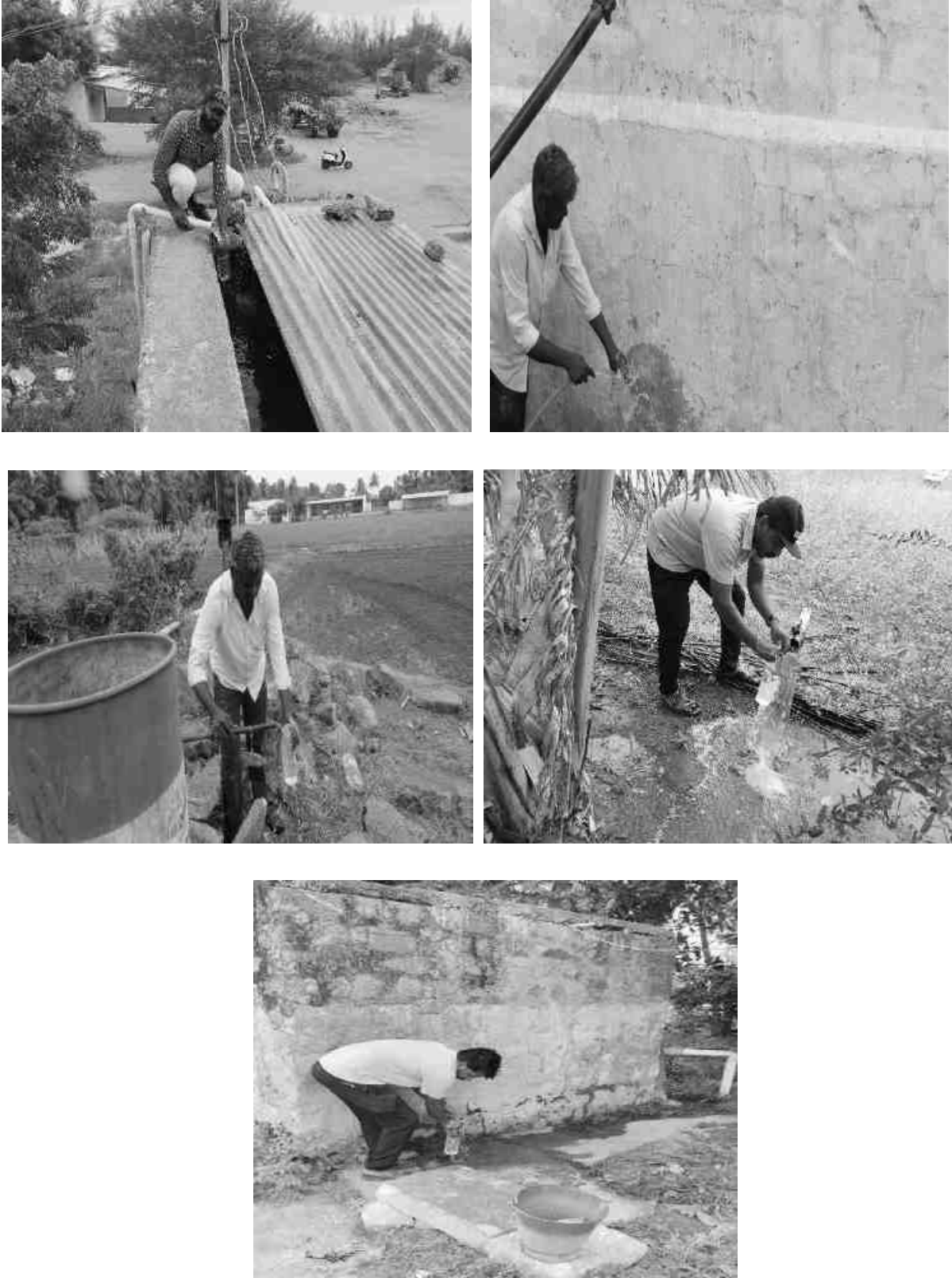


Fig No. 3.9: Water Sample Collection at Cluster core and Buffer zone

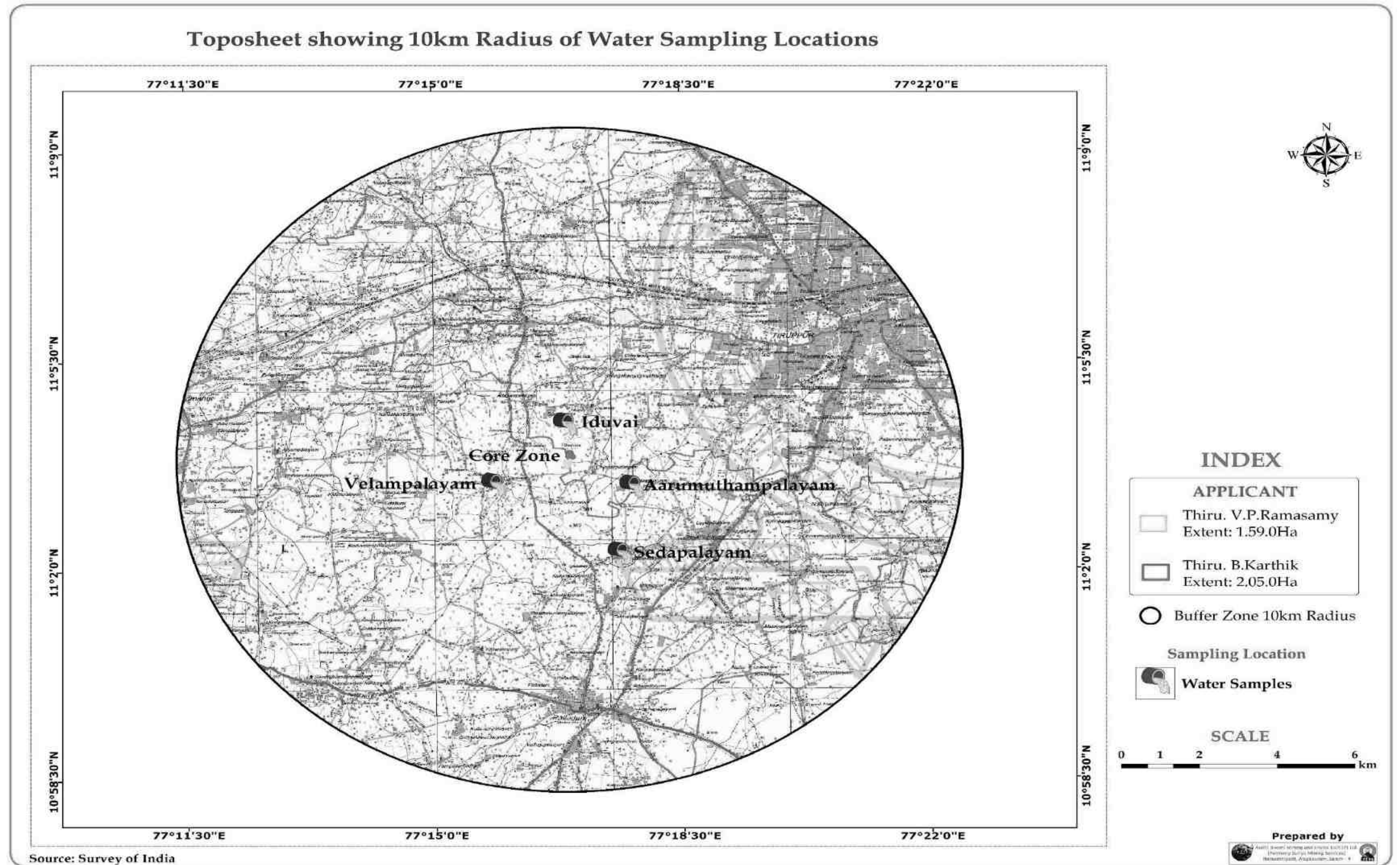


Fig No. 3.10: Geo Referenced Toposheet showing Water sampling station around 10km radius

Table No. 3.7: Result of Water Quality Analysis

Sampling Site		Parameters												
		pH	EC μs/cm	Tur (NTU)	TSS (mg/l)	TDS (mg/l)	TH (mg/l)	Ca (mg/l)	Mg (mg/l)	Cl (mg/l)	TA (mg/l)	HCO ₃ ⁻ (mg/l)	SO ₄ ²⁻ (mg/l)	Fe (mg/l)
Cluster Core Zone		7.31	2870	BDL	16	1752	344	84	33	228	292	292	40	1.54
Buffer Zone	Iduvai	7.54	1024	BDL	8	604	115	29	10	104	123	123	25	0.94
	Sedapalayam	7.58	937	BDL	4	552	280	86	15	58	188	188	29	0.07
	Velampalayam	6.86	2870	BDL	16	1734	488	111	51	190	114	114	54	1.02
	Aarumuthampalayam	6.98	1044	BDL	8	612	136	35	12	106	147	147	26	0.85
IS10500:2012	AL	6.5-8.5	-	1	-	500	200	75	30	250	200	-	200	0.3
	PL	6.5-8.5	-	5	-	2000	600	200	100	1000	600	-	400	0.3

***Protocol followed by:** APHA 23rd Edition 2017

Tur- Turbidity, **TSS-** Total Suspended Solids, **TDS-** Total Dissolved Solids, **TH-** Total Hardness, **Ca²⁺-** Calcium, **Mg²⁺-** Magnesium, **Cl** Chloride, **TA-** Total Alkalinity, **HCO₃⁻-** Bicarbonate, **SO₄²⁻-** Sulfate and **Fe-** Iron.

AL- Acceptable Limit.

PL- Permissible limit.

3.6.3 Interpretation of Water Quality Data

Ground Water Quality results were compared with Acceptable limits for Drinking Water as per the Standard IS 10500:2012. Some parameters of Water samples did not meet the acceptable limits of IS 10500: 2012.

- pH of the water samples ranged from 6.86 – 7.58. pH in water samples collected from all the locations are within the acceptable limit.
- EC was found to be in the range of 937-2870, is found high in all the locations.
- Iron in water samples at Iduvai, Core zone, Velampalayam and Aarumuthampalayam was found to be exceeding permissible limit. The Sedapalayam was found to be 0.07 mg/l, is within the Permissible limit.
- Total Dissolved Solids found in the range of 604 - 1752 mg/l. Highest value was recorded in cluster core zone, and Velampalayam other three samples within the permissible limits.
- Total Hardness of water sample varied between 115-488 mg/l and the maximum value recorded at Velampalayam village. The entire four samples' except Iduvai and Aarumuthampalayam villages TH exceeds the Acceptable limit.
- Chloride in the water samples ranged from 58 - 228 mg/l. all the water samples was found below detectable limit.
- Turbidity from all the water samples was found below detectable limit.
- Sulphates in all the water samples were found within the Acceptable limit.

Prolonged consumption of water containing high TH causes Cardio vascular problems, diabetes, skin diseases, rashes, reproductive failure and renal failure. For the excellent quality of drinking the water must be treated with reverse osmosis process to overcome above mentioned such impacts on human body. Boiling of water will remove the microorganisms effectively from all waters in the above said villages and core zone making the water aseptically fit for drinking purposes.

3.7 Hydrogeology

3.7.1. Hydro geological details

Tiruppur District is underlain by crystalline metamorphic complex in the western parts of district and sedimentary tract in eastern side. An area of 4551 Sq.km is covered by crystalline rocks (63%) and 2671 Sq.km is covered by sediments (37%). The general geological sequence of formation is given below:

Quaternary	-	Laterites, Sands and Clays
Clays		Tertiary-Sand stone, Gravels and

Cretaceous - Limestone, Calcareous Sandstone and Clay unconformity.
Archaean - Charnockites, Gneisses, Granites, Dolerites and Pegmatite

- The major part of the area is covered by metamorphic crystalline rocks of charnockite, granitic gneiss of Archaean age intruded by dolerite dykes and pegmatite veins. These rocks are highly metamorphosed and have been subjected to very severe folding, crushing and faulting.
- Ground Water occurs under the phreatic condition and wherever there are deep seated fractures, it occurs under semi-confined to confined conditions.
- Occurrence of Ground Water in hard rock depends upon the intensity and depth of weathering, fractures and fissures present in the rocks.
- Granites and gneisses yield moderately compared to the yield in Charnockites.
- Depth of well in hard rock generally ranges between 8 and 15m below ground level.
- Generally, yield in open wells ranges from 30 to 250 m³/day and in bore well between 260 and 430 m³/day. The weathered thickness varies from 2.5 m to 42m in general there are 3 to 5 fracture zones within 100m and 1 to 4 fracture zones between 100 and 200m.

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

3.7.1.1 Aquifer Systems

Occurrence and storage of groundwater depend upon three factors viz., Geology, Topography and rainfall in the form of precipitation. Apart from Geology, wide variation in topographic profile and intensity of rainfall constitutes the prime factors of groundwater recharge. Aquifers are part of the more complex hydro geological system and the behaviour of the entire system cannot be interpreted easily. In hard rock terrain the occurrence of Ground Water is limited to top weathered, fissured and fractured zone which extends to maximum 30 m on an average it is about 10-15 m in Tiruppur District.

In Sedimentary formations, the presence of primary inter granular porosity enhances the transmitting capacity of groundwater where the yield will be appreciable. The

sedimentary area which occupies the eastern part of the District along the coastal tract is more favourable for groundwater recharge. Ground Water occurs both in semi confined and confined conditions. A brief description of occurrence of groundwater in each formation is furnished below.

3.7.1.2 Alluvial Formations

In the river alluvium groundwater occurs under water table condition. The maximum thickness is 37 m and the average thickness of the aquifer is approximately 12 m. These formations are porous and permeable which have good water bearing zones.

3.7.1.3 Tertiary Cuddalore sand stone

Tertiary formations are represented by Cuddalore Sandstone and characterized as fluvial to brackish marine deposits. Predominantly this formation is divided into Lower and Upper Cuddalore formations. In the Upper Cuddalore formations the groundwater occurs in semi confined conditions, whereas in the Lower Cuddalore the groundwater occurs in confined condition with good groundwater potential.

3.7.1.4 Cretaceous Formations

Groundwater occurring in the lens shape in the sandy clay lenses and fine sand is underlain by white and black clay beds which constitute phreatic aquifer depth which ranges 10m to 15m below ground level. Phreatic aquifer in Limestone is potential due to the presence of Oolitic Limestone.

3.7.1.5 Hard Rock Formations

Groundwater occurs under water table conditions but the intensity of weathering, joint, fracture and its development is much less in other type of rocks when compared to gneissic formation. The groundwater potential is low, when compared with the gneissic formations.

3.7.1.6 Granitic Gneiss

Groundwater occurs under water table conditions in weathered, jointed and fractural formations. The pore space developed in the weathered mantle acts as shallow granular aquifers and forms the potential water bearing and yielding zones water table is shallow in canal and tank irrigation regions and it is somewhat deeper in other regions.

3.7.1.7 Charnockite

Groundwater occurs under water table conditions but the intensity of weathering, joint, fracture and its development is much less when compared to gneissic formations. The groundwater potential is low, when compared with the gneissic formations.

3.7.1.8 Aquifer Parameters

The thickness of aquifer in this district is highly erratic and varies between 15 m to 40 m below ground level. The inter granular Porosity is essentially dependent on the intensity and degree of weathering and fracture development in the bed rock. As discussed earlier deep weathering has developed in Gneissic formations and moderate weathering in charnockite formations

3.7.2 GEOPHYSICAL ELECTRICAL RESISTIVITY SURVEY

For understanding subsurface hydrogeological conditions geophysical investigation is carried out. The geophysical investigation is especially useful in the areas where there are no adequate exploratory well data about the aquifer conditions. Electric resistivity method is one of the well-known geophysical methods for delineating lateral as well vertical discontinuities in the resistivity's of the earth's subsurface layers. It is mainly applied to locate aquifers in the field of hydrogeology. The present study makes use of vertical electric sounding (VES) to delineate earth's subsurface layers. The electrical resistivity investigation used four electrodes collinear set up where current is sent through outer electrodes into the ground and the inner electrodes measure the potential difference, as shown in Figure 3.1.

3.7.2.1 Methodology and Data Acquisition

Geophysical Electrical Resistivity survey conducted in schlumberger Configuration (VES) method using IPI2 win 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.

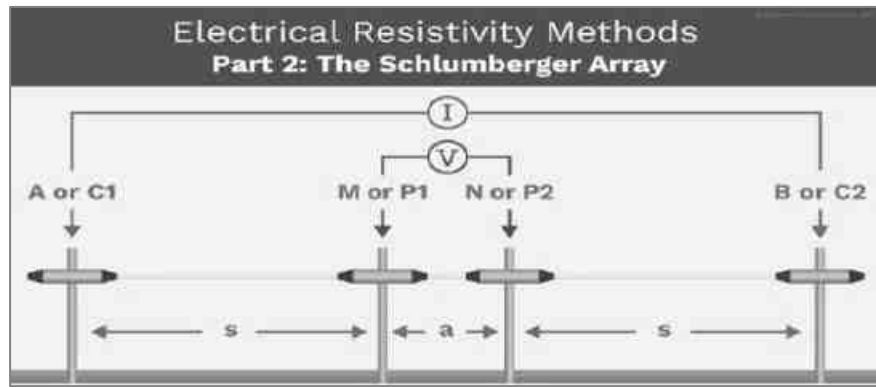


Fig. No. 3.11: Schlumberger Array



Fig. No. 3.12: DDR-3 Electrical Resistivity Meter

The resistivity surveys were carried by the consultants in the site at selected one point at Tested in the proposed Project site. The vertical electrical sounding (VES) using digital resistivity meter is carried out and the apparent resistivity curves are obtained. Ipi2 win software is used and the data are interpreted. The computer output of geo-electric layers are given in fig 3.13 which gives the Resistivity cross section and Resistivity curve, depth wise resistance and interpreted layers with corresponding resistivity.



Fig. No. 3.13: Photos showing Geophysical survey conducted at proposed project site

The study area of lies in the Northern latitude of 11°3'53.57"N, Eastern longitude 77°16'55.42"E which is represented by Toposheet No. 58 E/8. The applied area is mostly plain, elevation of 364m above mean sea level.

Table 3.8 Geophysical Vertical Electrical Sounding Data

Geo-Coordinates: Latitude 11°3'53.57"N Longitude 77°16'55.42"E					
S. No.	AB/2 (m)	MN/2 (m)	Geometric factor (K)	Resistance Value (R) ohm	Apparent Resistivity Rho ohm-meter
1	1.5	0.5	6.3	19.7	124
2	3	0.5	27.5	5.02	139
3	6	0.5	112.3	1.66	186
4	9	0.5	253.6	1.04	264
5	12	0.5	451.4	0.74	334
6	12	2	109.9	3.75	412
7	15	2	173.5	3.02	524
8	20	2	310.9	2.05	637
9	25	2	487.5	1.56	761
10	30	2	703.4	1.22	858
11	30	6	226.1	5.09	1151
12	35	6	311.1	3.08	958
13	40	6	409.2	2.55	1043
14	45	6	520.5	2.09	1088
15	50	6	644.7	2.38	1534
16	60	6	932.6	1.34	1250
17	60	10	549.5	2.58	1418
18	70	10	753.6	2.03	1530
19	80	10	989.1	1.66	1642
20	90	10	1256	1.34	1683
21	100	10	1554.3	1.15	1787
22	100	20	753.6	1.09	821
23	110	20	918.5	1.07	983
24	120	20	1099	1.06	1165

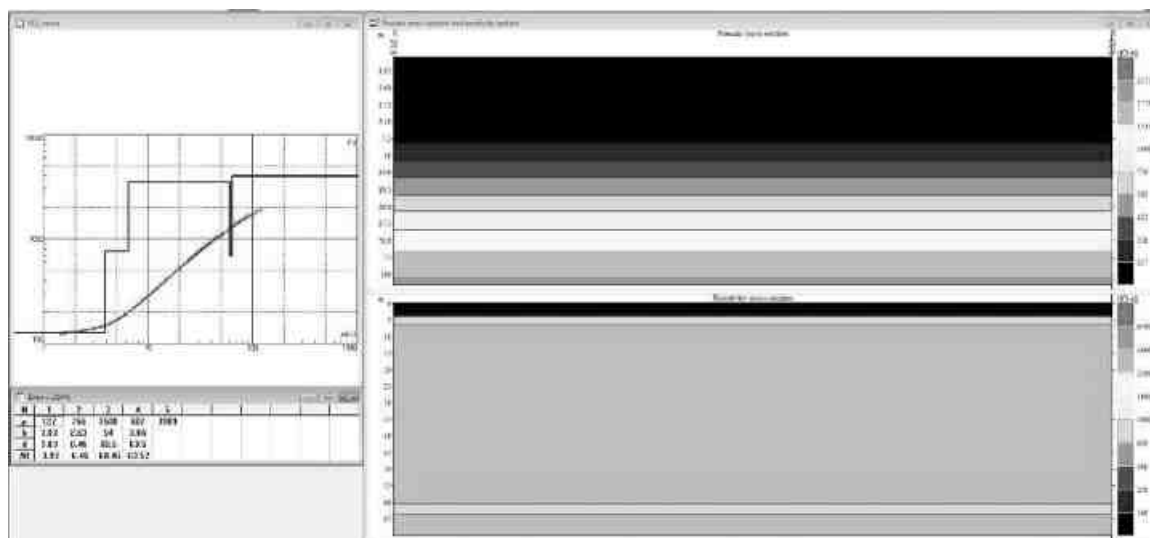


Fig. No. 3.14: Image showing Resistivity cross section and Resistivity curve, depth of data

3.7.3 Geophysical Data Interpretation

0-3.83m: Top soil & Gravel with 127 Ohm. Resistivity

3.83-6.46m Weathered rock formation with 766 ohm. Resistivity

6.76-60.5m: Massive Charnockite formation with 3508 ohm. Resistivity

60.5-63.5.m - Jointed and fractured rock with about 687 ohm. Resistivity

Above 63.5m hard massive formation with 3989 Ohm. Resistivity

The presence of top soil and Gravel 0-3.83m followed by 3.83-6.46m with medium resistivity is indicative of the weathered rock. The water table is having curve breaks around 60.5-63.5m depth with possible water level.



Fig. No. 3.15: Photographs showing Open well water level survey around 1kms radius

3.7.4 Groundwater Levels and flow direction

As the groundwater moves from the points of highest static groundwater elevation to the points of lowest static groundwater elevation under the influence of gravity, data regarding depth to groundwater levels are essential to infer the direction of groundwater movement within the study area. Knowledge of groundwater flow direction is must in choosing location for background groundwater quality monitoring well and in locating recharge and discharge areas. Therefore, data regarding groundwater elevations were collected from 8 open wells at various locations within 1km radius around the proposed project site for the period from October, 2024 to December 2024 (Post monsoon season) and from the period of March 2025 to May 2025. The data thus collected from 8 open wells are provided in Tables 3.9 & 3.10 According to the data, the three months' average depths to the static water level in open wells range from 8.82 to 11.20m BGL in post monsoon and 11.96 to 15.27m BGL in pre monsoon. The depths to static water level and potentiometric surface data were used to calculate static groundwater table and potentiometric surface elevations for

open wells, respectively to draw contour lines connecting groundwater elevation (also known as equipotential hydraulic head) to determine the groundwater flow direction perpendicular to the contour lines.

From the maps of groundwater flow direction (Figures 3.16 & 3.17), it is understood that most of the open well groundwater underneath the proposed project site flows towards the open well numbers 8 located in northeastern side of the proposed project site. On the basis of the groundwater flow information, the open well number 2 located in Southwest of the proposed project site can be chosen for water quality monitoring purpose as the wells may get easily affected by the contaminants resulting from the mining activities of the site in future.

Table 3.9 Post-Monsoon Water Level of Open Wells within 1 km Radius

Open well	Latitude	Longitude	Depth to Static Water Level BGL (m)			
			October 2024	November 2024	December 2024	Average Water Level
OW-1	11° 3'58.59"N	77°16'28.89"E	8.77	9.54	10.86	9.72
OW-2	11° 3'34.40"N	77°16'20.10"E	10.4	11.06	12.14	11.20
OW-3	11° 3'23.47"N	77°16'45.51"E	9.59	10.37	11.82	10.59
OW-4	11° 3'23.15"N	77°17'0.72"E	8.64	9.36	10.58	9.53
OW-5	11° 3'33.05"N	77°17'8.65"E	8.75	9.28	10.37	9.47
OW-6	11° 3'45.27"N	77°17'19.69"E	8.66	9.13	10.45	9.41
OW-7	11° 4'0.90"N	77°17'10.32"E	8.41	9.05	10.3	9.25
OW-8	11° 4'11.28"N	77°17'12.59"E	7.94	8.68	9.83	8.82

Table 3.10 Pre-Monsoon Water Level of Open Wells within 1 km Radius

Open well	Latitude	Longitude	Depth to Static Water Level BGL (m)			
			March 2025	April 2025	May 2025	Average Water Level
OW-1	11° 3'58.59"N	77°16'28.89"E	12.04	12.78	14.45	13.09
OW-2	11° 3'34.40"N	77°16'20.10"E	13.92	15.17	16.72	15.27
OW-3	11° 3'23.47"N	77°16'45.51"E	12.68	13.85	15.64	14.06
OW-4	11° 3'23.15"N	77°17'0.72"E	12.13	12.97	14.23	13.11
OW-5	11° 3'33.05"N	77°17'8.65"E	11.97	12.85	14.38	13.07
OW-6	11° 3'45.27"N	77°17'19.69"E	11.85	12.78	14.08	12.90
OW-7	11° 4'0.90"N	77°17'10.32"E	11.35	12.43	13.75	12.51
OW-8	11° 4'11.28"N	77°17'12.59"E	10.97	11.24	13.68	11.96

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tiruppur District

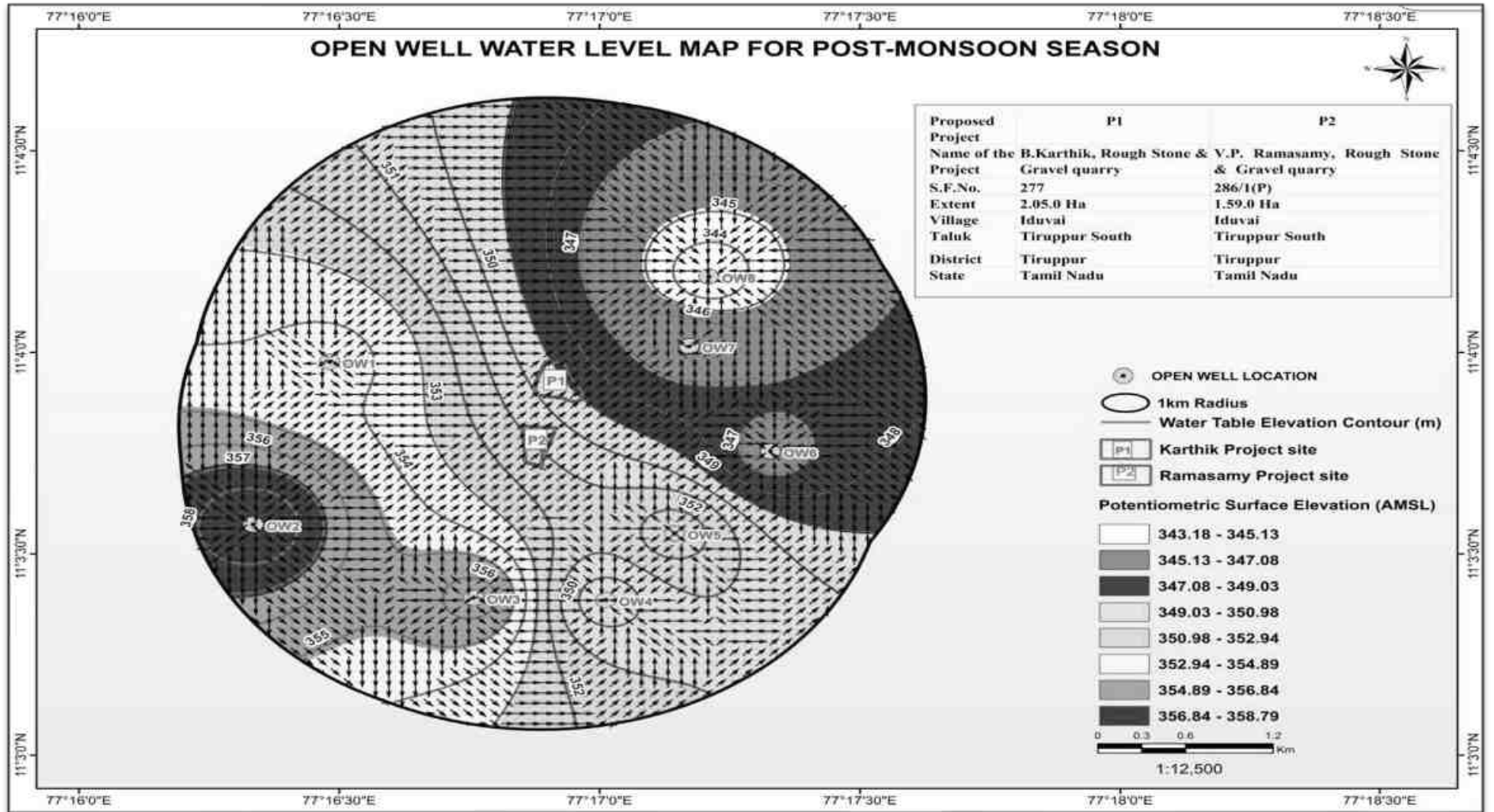


Fig. No. 3.16: Open Well Static Ground Water Elevation Map Showing Direction of Groundwater flow during Post Monsoon (Oct-Dec-2024)

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tiruppur District

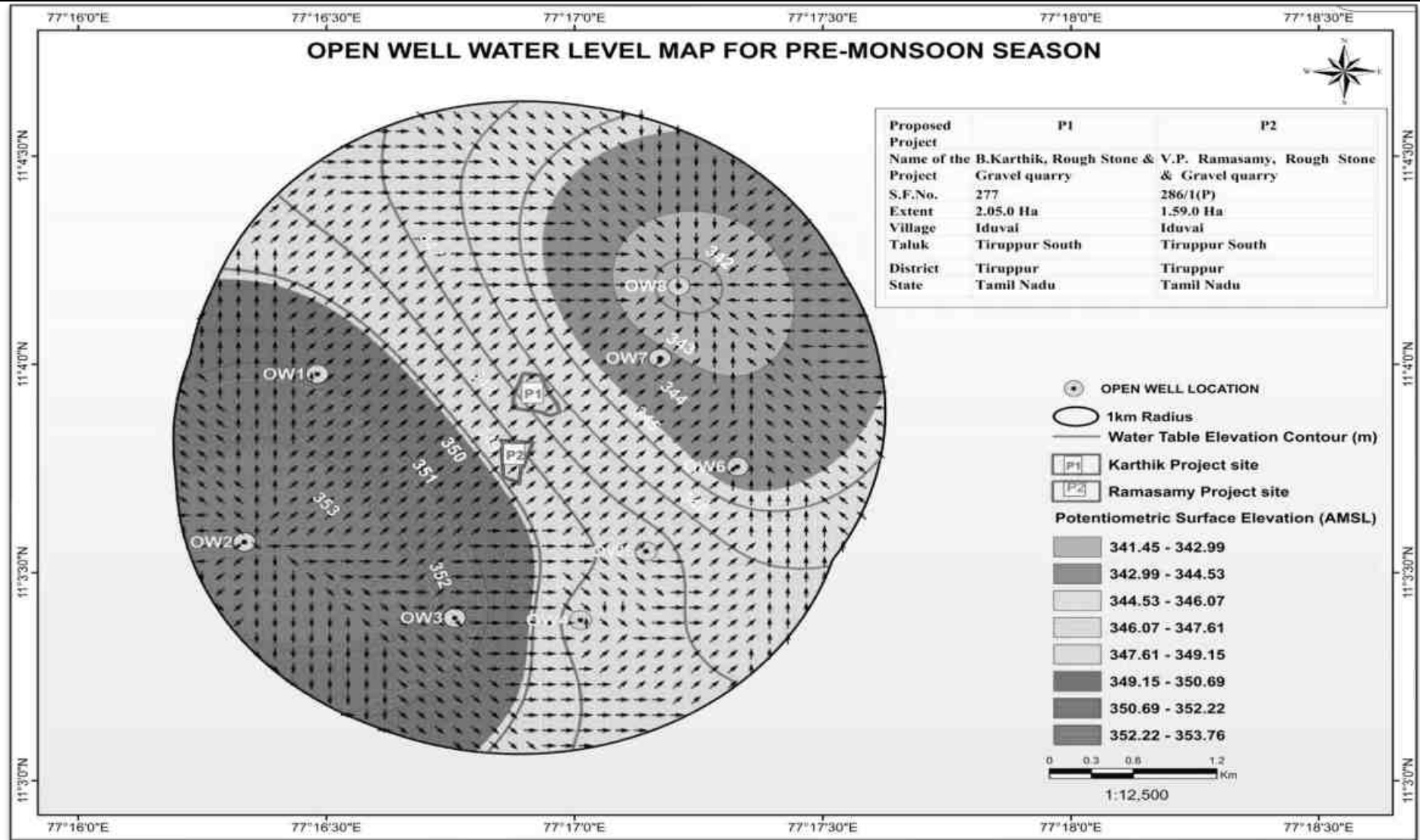


Fig. No. 3.17: Open Well Static Ground Water Elevation Map Showing Direction of Groundwater flow during Pre Monsoon (Mar-May-2025)

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

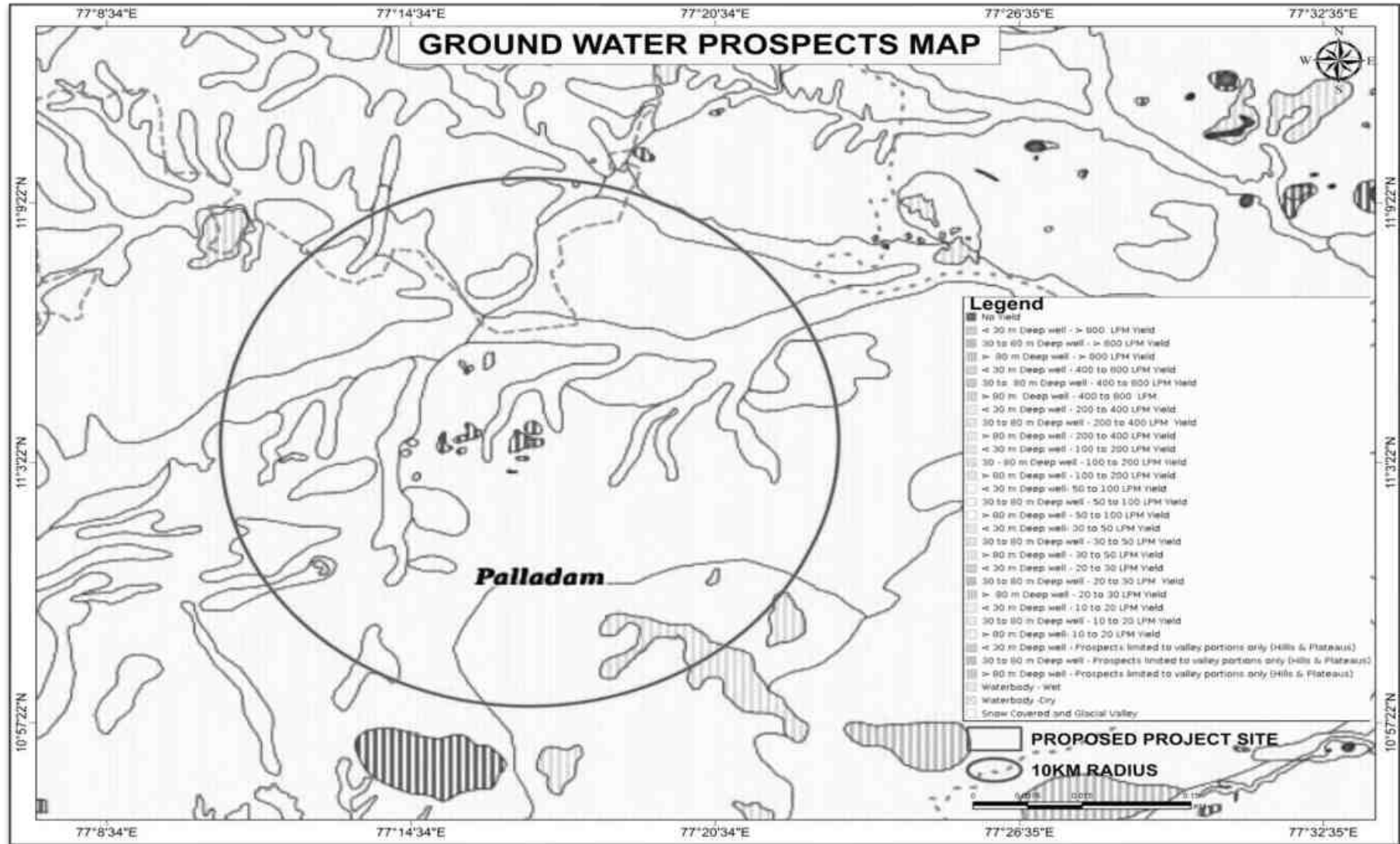


Fig. No. 3.18: Ground Water prospects map proposed project site around 10km Radius.

3.7.5 Conclusions

The hydro geological, geophysical studies indicate water bearing aquifer is located at 60.5-63.5m below ground level (BGL). The maximum depth of mining proposed project for five years 32 m and 42m below ground level. Therefore, the mining operation will not affect the aquifer throughout the entire mine life period.

3.8 Soil Environment

The type of soil is an important factor for the growth of plants and crops in any area. The soil system has various criteria to classify the soils of a region such as geology, humidity, rainfall pattern, soil texture, soil salinity etc.

Soil quality study has been carried out at the site and in the study area of 10 km radius around the project site to understand the physical-chemical nature of the soil. Soil sampling was carried out at 5 selected locations.

The frequency and methodology of soil quality sampling process is given in table 3.12. Moreover, Georeferenced soil Map of around 10 km radius is given in fig 3.18 and table 3.13 presents the soil quality monitoring locations of the study area. The sampling was carried out once in the study period.

Table No. 3.12: Frequency and methodology for soil sampling & monitoring

S. No	Particulars	Details
1	Frequency	One sample from each station— once during the Study Period
2	Methodology	Soil Sample has been collected as per the CPCB standard

3.8.1 Methodology of Soil Environment

Soil samples were collected from different depth below the surface. The samples were filled in polythene bags, labeled in the field with number and site name and sent to laboratory for analysis. The samples were homogenized and the quality was reduced using the coning and quartering method to provide a respective sample for analysis. The samples were analyzed as per Indian Standards IS: 2720 (Revised Parts).

- ❖ To determine the baseline soil characteristics of the study area
- ❖ To determine the impact of the project on soil characteristics and
- ❖ To determine the impact on soils more importantly loss of fertility from agricultural productivity point of view.

Table No.3.13: Soil Sampling Locations

Code	Location	Latitude	Longitude	Distance (km)	Direction
S 1	Cluster core zone	11°03'49.94"N	77°16'53.26"E	--	--
S 2	Iduvai	11° 4'23.37"N	77°16'50.84"E	1.2	N
S 3	Sedapalayam	11° 2'21.93"N	77°17'32.36"E	3.1	SE
S 4	Velampalayam	11° 3'27.30"N	77°15'51.13"E	2.0	W
S 5	Aarumuthampalayam	11° 3'27.10"N	77°17'35.99"E	1.5	E



Fig No. 3.20: Soil sampling at cluster core and Buffer zone

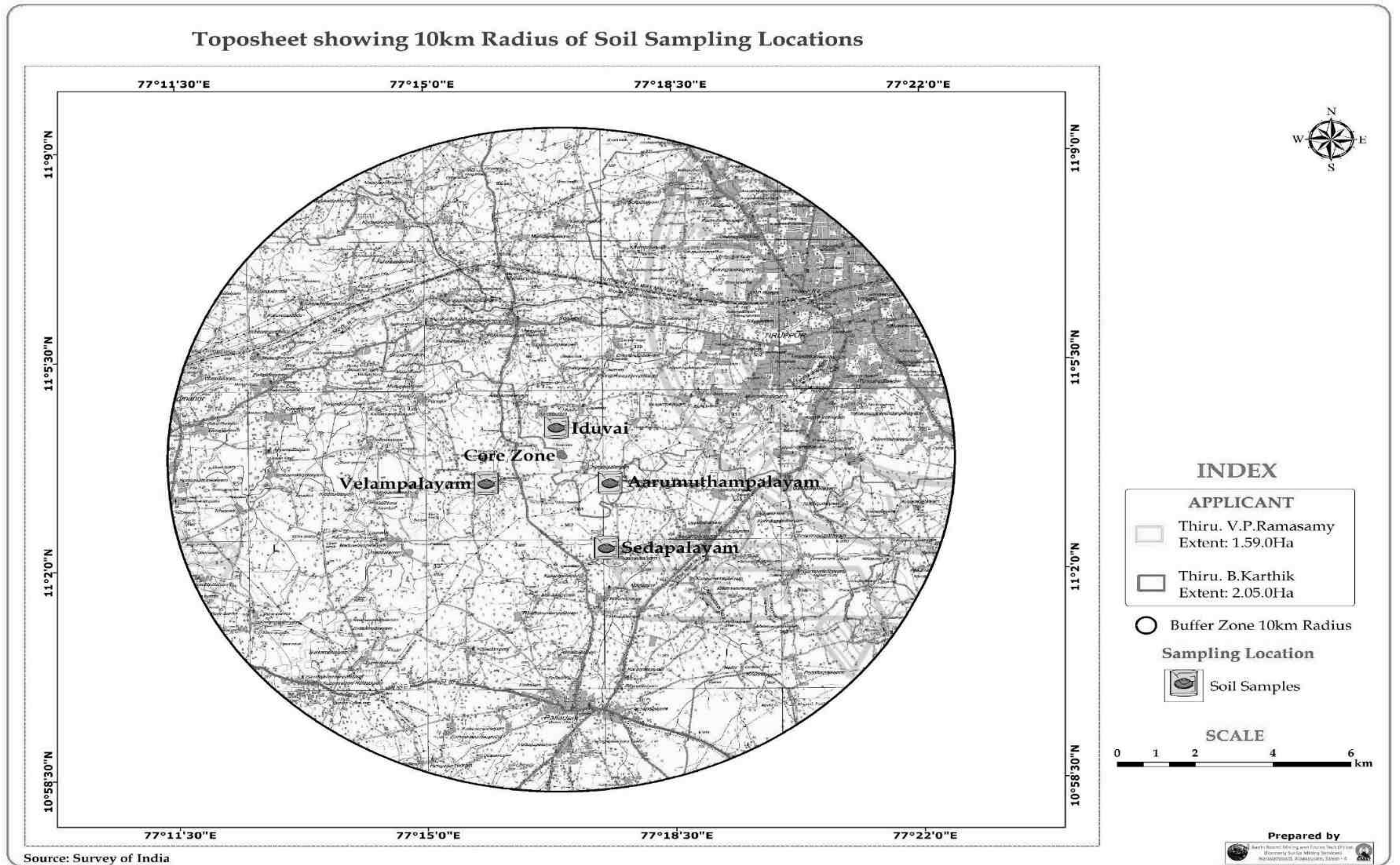


Fig No. 3.19: Geo referenced Toposheet showing Soil sampling Locations around 10km radius

Table No. 3.14: Result of Soil Sample Analysis

Sample Site		Soil Parameters											
		pH (10%Sol)	EC (10% Sol) $\mu\text{s/cm}$	M (%)	BD (g/cc)	WHC (%)	*Texture (%)			OC (%)	Ca (Meq/l)	Mg (Meq/l)	Cl (Meq/l)
							Sand	Silt	Clay				
Cluster Core Area		6.98	214	2.6	1.04	44	48	24	28	0.2	1.8	1.0	1.4
							Sandy Clay Loam						
Buffer Zone	Iduvai	7.03	295	2.4	1.08	56	54	24	22	0.26	1.2	0.6	0.9
							Sandy Clay Loam						
	Sedapalayam	7.63	294	2.1	1.30	56	52	28	20	0.4	2.2	0.6	1.8
							Sandy Loam						
	Velampalayam	7.74	174	1.8	1.22	64	48	32	20	0.2	1.2	1.0	5.7
							Sandy Loam						
	Aarumuthampalayam	7.14	254	2.7	1.15	48	52	28	20	0.3	0.8	0.6	0.7
							Sandy Loam						

EC-Electrical Conductivity, **M**- Moisture, **BD**- Bulk Density, **WHC**- Water Holding Capacity, **OC**- Organic Carbon, **Ca**- Calcium, **Mg**-Magnesium and **Cl**-Chloride.

BDL = Below the Detectable Limit.

DL = Detection Limit. *-Without NABL.

3.8.2 Observations

Soil characteristics were delineated through specific parameters viz. moisture, bulk density, texture, water holding capacity, organic matter and other parameters as depicted in table 3.14.

pH is an important parameter indicative of alkaline or acidic nature of soil. It greatly affects the microbial population as well as solubility of metal ions and regulates nutrient availability. The pH varies from 6.98 to 7.74 in the soil samples.

Electrical conductivity (EC): a measure of soluble salts in the soil was in the range of 174 $\mu\text{S/cm}$ to 295 $\mu\text{S/cm}$.

Regular cultivation practices increase the bulk density of soils thus inducing compaction. This results in reduction in water percolation rate and penetration of roots through soils. The soils with low bulk density have favorable physical conditions whereas those with high bulk density exhibit poor physical conditions for agriculture crops. The bulk density of the soil samples is in the range of 1.04 g/cc to 1.30 g/cc respectively, which indicate favorable physical condition for plant growth.

Water holding capacity was found to be in the range of 44% to 64% in all the soil samples collected from core and buffer villages.

Organic matter present in soil influences its physical and chemical properties and is responsible for stability of soil aggregates. Organic matter was found to be in the range of 0.2 – 0.4%. This shows that soil was deficient in organic matter content.

Available Chlorides content range of between 0.7 - 5.7 mgmeq/l/kg in both core and buffer villages.

Magnesium level of soil sample in the core zone and buffer zone was found to be 0.6 to 1.0 meq/l in all the soil samples collected.

Calcium content in these soils ranges between 0.8 – 2.2 meq/l thereby indicating that the soils are with low levels of available Calcium content.

3.9 ECOLOGY AND BIOLOGICAL ENVIRONMENT

3.9.1 Description of Tirupur District Environment

During 1990's, Exports have been increased tremendously in Tiruppur Area and the infrastructure and other basic amenities available is not enough for fast growth city like Tiruppur. Therefore, the people of the region demanded Separate Corporation and District for Tiruppur to fulfil the aspiration of the people in the region. The Hon'ble Chief Minister had accepted the views of the people and industrialist during inauguration of Tiruppur municipal corporation and agreed that very soon the New District will be formed. Subsequently the

Hon'ble Finance Minister announced in the floor of assembly that a separate Tiruppur District will be formed. Accordingly, the Government have issued G.O.Ms.No.617 and 618, Revenue [R.A.1(1)] Department, dated 24.10.2008 to bring district administration closer to be people and to fulfil the aspiration of industrialist by reorganizing Coimbatore and Erode Districts into Coimbatore, Erode and Tiruppur Districts. Subsequently, the New District was inaugurated on 22.02.2009 by the Hon'ble Minister for Rural Development. The District lies between 10° 14'N to 11° 20'N Latitude, 77° 27'E to 77° 56'E Longitude and has an aerial extent of 2296 sq.km

Tiruppur city during summer and winter vary between 35 °C to 18 °C. The average annual rainfall in the plains is around 700 mm with the North East and the South West monsoons contributing to 47% and 28%, respectively, to the total rainfall. The major rivers flowing through the district are Noyyal and Amaravathi. The Amaravathi River is the main source of irrigation in the district. Amaravathi Dam, which created Amaravathi Reservoir, is located at Amaravathinagar. Thirumurthy dam which is created by the PAP project is situated in this district. Both Amaravathi dam and Thirumurthy dam are the prime source of irrigation in the district, whereas Uppaar dam is another dam which receives water from seasonal rains.

The southern part of the Tiruppur district is covered by hill ranges of Western Ghats (Anamalai, Sirumuga malai, Nilgiri, Boluvampatti, Janakal and Velligiri) and the rest of the district consists of undulating plain sloping gradually from West to East. The major rivers flowing through the district are Noyyal and Amaravathi, which come under the Cauvery basin. Chinnar and Tenar rivers are the main tributary of Amravati River, which is the main source of irrigation in the district. Nallar and Palar River are covered under the Parambikulam-Aliyar basin. Both Amaravathi dam and Thirumurthy dam are the prime source of irrigation in the district, whereas Uppaar dam is another dam which receives water from seasonal rains.

3.9.2 Agriculture activities in Tirupur District

Agriculture continues to be the most predominant sector of the District economy, around 30 percent of the working population is engaged in Agriculture and allied activities for their livelihood. The District has an area of 472629 Ha. with net cultivated area of around 184645 Ha. Total cultivation area in Tiruppur District is arrived approximately as 2,00,360 Hectors. Depending upon the rainfall and assured irrigation the total cultivable area may cover 100 to 150% total area. Apart from this peremial crops such as Coconut occupies 33786 Hector as a perennial area. All together total cultivable area fetches to 2,28,556 Hector.

Horticulture is one of the forest growing sector within Agriculture and contribute one fifth share of the total production. There has been a perceptible change in the consumption pattern characterized by declining share of food grains and the increasing share of fruits and vegetables, Rapidly growing demand for horticulture commodities and products especially burgeoning market for processed fruits and vegetables as well as booming medical plant cultivation is evidence of phenomenon that is expected to accelerate horticulture growth. The major horticulture products cultivated in the districts are fruits (mango, amlaetc.,)

Table No. 3.15: Details of Important crops in Tirupur District

S. No	Common name	Scientific name	Family
1.	Paddy	<i>Oryza sativa</i>	Poaceae
2.	Cholam	<i>Sorgham bicolor</i>	Poaceae
3.	kambu	<i>Pennisetum glaucum</i>	Poaceae
4.	Ragi	<i>Eleusine coracana</i>	Poaceae
5.	Groundnut	<i>Arachis hypogaea</i>	Fabaceae
6.	Sugarcane	<i>Saccharum officinarum</i>	Poaceae
7.	Black gram	<i>Vigna mungo</i>	Fabaceae
8.	Cotton	<i>Gossypium herbaceum</i>	Malvaceae
9.	Vargu	<i>Paspalum crobiculatum</i>	Poaceae
10.	Maize	<i>Zea mays</i>	Poaceae
11.	Green gram	<i>Vigna radiata</i>	Fabaceae
12.	Red gram	<i>Cajanus cajan</i>	Fabaceae
13.	Castor	<i>Ricinus communis</i>	Euphorbiaceae
14.	Kuthiraivali	<i>Echinochloa frumentacea</i>	Poaceae
15.	Horsegram	<i>Macrotyloma uniflorum</i>	Fabaceae

3.9.3 Forest resources

Indira Gandhi Wild Life Sanctuary is spread over at the altitude of 1400 meters in the Western Ghats area of Pollachi, Valparai and Udumalaipettai. The area of the sanctuary is 958 sq km of which only 387 sq km spreadover in Tiruppur district. Amaravthy Reserve Forest and part of Anaimalai Reserve Forest of Anaimalai wildlife Sanctuary falls within the Tiruppur district. It has various kinds of fauna like elephant, gaur, tiger, panther, sloth bear, deer, wild bear, wild dog, porcupine, flying squirrel, jackal, pangolin, civet cat and birds like rocket-tailed drongo, re-whiskered bulbul, black headed oriole, tree pie, spotted dove, green pigeon, etc. The Amaravathy reservoir in the Anamalais has a large number of crocodiles. There are also many places of scenic beauty such as, Grass hills, waterfalls (Panchalingam),

river streams (chinnar, tenar), teak forests, dams and reservoirs (Thirumoorthy & Amaravathy).

The largest wild breeding population of Crocodiles in South India lives in the Amaravathy reservoir and in the Chinnar, Thennar and Pambar rivers that drain into it. These broad-snouted Mugger Crocodiles, also known as Marsh Crocodiles and Persian Crocodiles, are the most common and widespread of the three species of Crocodiles found in India. They eat fish, other reptiles, small and large mammals and are sometimes dangerous to humans also. Crocodiles (The mugger crocodile), once abundant in Amaravathy, Periyar and Chinnar and most of other perennial river, have been threatened to near extinction. Hence the project of captive breeding of these crocodiles came into existing at Amaravathy.

The object of captive breeding of crocodile at Amaravathy as in other Crocodile Centre in Tamilnadu is to collect Crocodile eggs from the wild clutch and rear it in captivity and release the young crocodile in the wild to restore its status.

The Amaravathy Sagar Crocodile Farm, established in 1976, the largest Crocodile nursery (captivity) in India is just 90 k from Tiruppur via Palladam and Udumalpet and One km. before the Amaravathy dam site.

Many Crocodiles of all sizes can be seen basking in the sun and suddenly making a stride or piled up on one another. Eggs are collected from wild nests along the perimeter of the reservoir to be hatched and reared at the Farm. Many adult crocodiles have been reintroduced from here into the wild. There are now 98 crocodiles (25 male + 73 female) maintained in captivity here. Three Forest Department personnel manage and maintain the Centre.

3.9.4 Water resources

Amaravathi Dam: at Amaravathi nagar, 25 km south on NH 17 from Udumalpet is located in Indira Gandhi Wildlife Sanctuary in Tiruppur district. The 9.31 km², 33.53 m deep, Amaravathi Reservoir was created by this steep dam. It was built primarily for irrigation and flood control and now also has 4 megawatts of electric generating capacity installed. It is notable for the significant population of Mugger Crocodiles living in its reservoir and catchment basin. There is a well laid-out park where one may climb steep steps on the dam to have a picturesque view north of the plains below and south to the Anaimalai Hills and Palni Hills above. This place is being developed as a District Excursion Centre for tourism.

Thirumoorthy Dam: It is a nice place for a one-day outing from Tiruppur. It has boating, a nice place to have your lunch and the drive there is ultimate. From Tiruppur, you can either go to Udumalpet or go from there to the more interior and scenic route that goes through the

villages. The drive is simply great with the whole route surrounded by sunflower gardens, coconut groves, and paddy fields. This Reservoir has been constructed across the River Palar which has its origins at the northern slopes of Anamalai Hills.

Upparu Dam: situated in Dharapuram Taluk in an extent of 445.3 Acres. It is an earthen dam constructed across upper river in cauvery basin in Dhasarpatti of an earthen portion of 7400 feet (2256 m) length with a masonry portion of 118 feet long to accommodate the surplus regulator consisting of 3 spars fitted with lift gats. The gross capacity of reservoir at F.R.L. is 572 Mcft. Re total annual useful storage for 2 ½ filling would be 1330 Mdft. There are two canal sluices provided one on each flank of the drainage course from which the two canals take off. The right flank canal runs for length of 12.47 km and the left flank canal for a length of 17.29 km. The total ayacut localized under this scheme around 6060 acre (2448.150 hectare).

Nallathangal Dam: The dam was constructed of across the Nallathangal odai near Eswaran Kovil of Ponnivadi Village, Dharapuram Taluk in the year 2007. It is 15 Km away from Dharapuram town. Total length of dam is 3450 meters of which 3300 meter is earthen dam to store the water and 150 meter is masonry structure for drain the excess water. The total water spread area of the dam is 17.74 square Mile with storage (Capacity of 223.01 million cubic feet (MCFT). There are two sluices in the dam for connecting high level and low-level canals for irrigation purpose.

Vattamalaikarai Odai Dam: It is in Kangayam Taluk in an extent of 205.9 Acres.

3.9.5 Study Area Ecology

A survey was conducted to study the flora around 10 km radius. Some of the information was gathered from the local habitants. All the collected data were classified to interpret the impact of pollution on the flora and fauna of that region. Survey of the mild plants as well as cultivated crop plants was made and all the available information was recorded. The primary data collected was compared with the Secondary data collected from Forest Department. There are no ecologically sensitive areas such as Biosphere reserves, Wildlife Sanctuaries, national Parks and other protected areas in or around the project site in a radius of 10 km. Generate Baseline Data from field observations.

3.9.6 Methodology of Sampling

A methodology of Sampling Flora and fauna studies were carried out during the winter season to assess the list of terrestrial plant and animal species that occur in the core area and the buffer area up to 10 km radius from the project site. No damage is created to flora and fauna during the sampling. None of the specimens were collected as voucher

specimens and for the herbarium. It is basically done through field observations only. The study of flora is conducted as per the guidelines of the Ministry of Environment Forest and Climate Change (MoEF&CC) and Botanical Survey of India (BSI).

The study involved in the collection of primary data by conducting a survey in the field, examination of flora and fauna records in previously published reports and records. Analysis of the information is the view of the possible alteration in the environment of the project site. For the survey of fauna, both direct and indirect observation methods were used

3.9.7 Flora

The present study on the floral assessment for the existing project activity is based on extensive field survey of the area. The plant species were identified with the help of plant taxonomy manual, literatures and Botanical Survey of India website (efloraindia.nic.in). In addition, besides the collection of plant species, information was also collected with vernacular names of plant species made by local inhabitants.

3.9.7.1. Flora in Core Zone

Taxonomically a total of 51 species distributed in 34 families have been recorded from the core mining lease area. Based on habitat classification of the enumerated plants the majority of species were tree 23 (45%) followed by shrubs 12 (24%), herbs 13 (25%) and creeper 3 (6 %) Details of flora with the scientific name were mentioned in Table No. 3.11 and Fig No: 3.16. No ecologically sensitive plant species has been reported from this area.

3.9.7.2. Flora in Buffer Zone

Taxonomically a total of 75 species distributed among 41 families have been recorded from the buffer area. Based on habitat classification of the enumerated plants the majority of species were tree 32 (43%) followed by shrubs 19 (25%), herbs 19(25%) and rest 5 (7%) is a climber. Details of flora with the scientific name were mentioned in Table No. 3.11 and Fig No: 3.16.

3.9.7.3 Crop Pattern in Buffer Zone

The buffer area of mining lease area mostly cultivated for varieties of flowers such as, jasmine, firecracker flower, marigold and crops area mango and groundnut. Details crops with name mentioned in table 3.16.

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES*Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District*

Table No. 3.16: Floral Diversity in Core and Buffer area
 (B. Karthik and V.P. Ramasamy, Rough Stone and Gravel Quarry, Tirupur District)

S. No	Common Name	Local Name	Family	Scientific Name	Core	Buffer
TREES						
1.	Coconut	Tennai Maram	Arecaceae	<i>Coccus nucifera</i>	+	+
2.	Tamarind	Puliya Maram	Fabaceae	<i>Tamarindus indica</i>	+	+
3.	Drumstick tree	Murungai Maram	Moringaceae	<i>Moringa oleifera</i>	-	+
4.	Banyan	Ala Maram	Moraceae	<i>Ficus benghalensis</i>	-	+
5.	Neem	Vempa Maram	Meliaceae	<i>Azadirachta india</i>	+	+
6.	Khejri Tree	Vanni Maram	Fabaceae	<i>Prosopis spicigera</i>	-	+
7.	Palmyra palm	Panai Maram	Arecaceae	<i>Borassus flabellifer</i>	+	+
8.	Mango	Maa Maram	Anacardiaceae	<i>Mangifera indica</i>	+	+
9.	Papaya Tree	Papali Maram	Caricaceae	<i>Carica Papaya</i>	-	+
10.	Teak	Tekku Maram	Lamiaceae	<i>Tectona grandis</i>	+	+
11.	Sandal wood	Santhana Maram	Santalaceae	<i>Santalum album</i>	-	+
12.	Chebolicmyrobalan	Kudukkai Maram	Combretaceae	<i>Terminalia chebula</i>	+	+
13.	Pungamin	Pungai Maram	Fabaceae	<i>Pongamia pinnata</i>	+	+
14.	Lemon-Scented Gum	Thaila Maram	Myrtaceae	<i>Eucalyptus citriodora</i>	+	+
15.	Black plum	Naval Maram	Myrtaceae	<i>Syzygium cumini Sps.</i>	+	+
16.	Banana	Vaazhai Maram	Musaceae	<i>Musa paradisica</i>	-	+
17.	Thorn mimosa	Karuvelam Maram	Mimosaceae	<i>Acacia nilotica</i>	+	-
18.	Ceylon olive	Ularga karai Maram	Elaeocarpaceae	<i>Elaeocarpus serratus</i>	+	-
19.	Guava	Koiya Maram	Myrtaceae	<i>Psidium guajava</i>	-	+
20.	Indian date	Elandhai Maram	Rhamnaceae	<i>Ziziphus jujuba</i>	+	+

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES

Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

21.	Sweet acacia	Kastuurivel Maram	Fabaceae	<i>Vachellia farnesiana</i>	-	+
22.	Iron wood	Savukku Maram	Casuarinaceae	<i>Casuarina equisetifolia</i>	+	+
23.	Broome rain Tree	Vagai Maram	Fabaceae	<i>Albizia lebbeck</i>	-	+
24.	Cannonbal tree	Nagalinga Maram	Lecythidaceae	<i>Couroupita guianensis</i>	-	+
25.	Tanner's cassia	Avaram poo Maram	Fabaceae	<i>Senna auriculata</i>	-	+
26.	Blackboard Tree	Aezhilai Paalai Maram	Apocynaceae	<i>Alstonia scholaris</i>	-	+
27.	Custard apple	Seethe pazham Maram	Annonaceae	<i>Annona squamosa</i>	+	+
SHRUBS						
1.	Jimson weed	Ummathai cheedi	Solanaceae	<i>Datura stramonium</i>	+	+
2.	Coat buttons	Thatha cheedi	Asteraceae	<i>Tridax porcumbens</i>	-	+
3.	Rose	Rosa	Rosaceae	<i>Rosa rubiginosa</i>	-	+
4.	Spiral cactus	Thirugu kalli	Euphorbiaceae	<i>Euphorbi tortilis</i>	+	+
5.	Indian Abutilon	Thuthi keera	Meliaceae	<i>Abutilon indicum</i>	+	+
6.	Peacock flower	Mayil kontai	Fabaceae	<i>Caesalpinia pulcherrima</i>	+	+
7.	Marigold	Samanthi cheedi	Asteraceae	<i>Tagetes erecta</i>	-	+
8.	Jasmine	Mali cheedi	Oleaceae	<i>Jasminum officinale</i>	-	+
9.	Firecracker flower	Kanakambaram	Acanthaceae	<i>Crossandra infundibuliformis</i>	-	+
10.	Hibiscus	Cembarutti	Malvaceae	<i>Hibiscus rosanaceae</i>	-	+
11.	Crown flower	Erukku cheedi	Apocynaceae	<i>Calotropis gigantean</i>	+	+
HERBS & GRASS						
1.	Sickle senna	Thagarai	Fabaceae	<i>Senna tora</i>	+	+
2.	Indian doab	Arugampul	Poaceae	<i>Cynodon dactylon</i>	+	+
4.	Carrot grass	Mookkuthi poo	Asteraceae	<i>Parthenium</i>	+	+

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES*Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District*

				<i>hysterophorus</i>		
5.	Indian Copper leaf	Kuppaimeni	Euphorbiaceae	<i>Acalypha indica</i>	-	+
6.	Devil bean	Kilukiluppai	Fabaceae	<i>Crotalaria retusa</i>	+	+
7.	Indian comet grass	Narival	Poaceae	<i>Perotis indica</i>	-	+
8.	Villosa	Kavali	Fabaceae	<i>Tephrosia villosa</i>	-	+
9.	Black nightshade	Manathakkali	Solanaceae	<i>Solanum nigrum</i>	+	+
CREEPERS/CLIMBERS						
1.	Bitter cucumber	Petikari	Cucurbitaceae	<i>Citrullus colocynthis</i>	-	+
2.	Bitter melon	Pavakkai	Cucurbitaceae	<i>Momordica charantia</i>	-	+
3.	Veldt grape	Perandai	Vitaceae	<i>Cissusqua dranqularis</i>	+	+
4.	Ivy gourd	Kovakkai	Cucurbitaceae	<i>Coccinia grandis</i>	-	+

Table No. 3.17: Crops pattern in: Floral Diversity in Core and Buffer area
(B. Karthik and V.P. Ramasamy, Rough Stone and Gravel Quarry, Tirupur District)

S. No	Common Name	Scientific Name	Family
1	Jasmine flower	<i>Jasminum officinale</i>	Asteraceae
2	Marigold plant	<i>Tagetes erecta</i>	Asteraceae
3	Firecracker flower	<i>Crossandra infundibuliformis</i>	Acanthaceae
4	Mango plant	<i>Mangifera indica</i>	Anacardiaceae
5	Groundnut plant	<i>Arachis hypogaea</i>	Fabaceae

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES

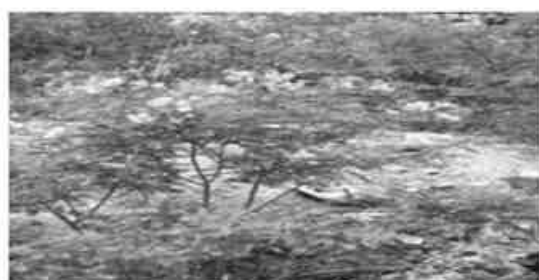
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District



Thatha Chedi - *Tridax procumbens*



Veppa maram - *Azadirachta indica*



Aavaram - *Senna auriculata*



Earukkam chedi- *Calotropis gigantea*



Murungai maram- *Moringa oleifera*



Karuvella maram- *Acacia nilotica*



Pannai maram- *Borassus flabellifer*



Pappali maram- *Carica Papaya*



Kanagaparam chedi- *Crossandra infundibuliformis*



Koiya maram- *Psidium guajava*

Fig No. 3. 21: Photos of Flora in Cluster core and Buffer zone

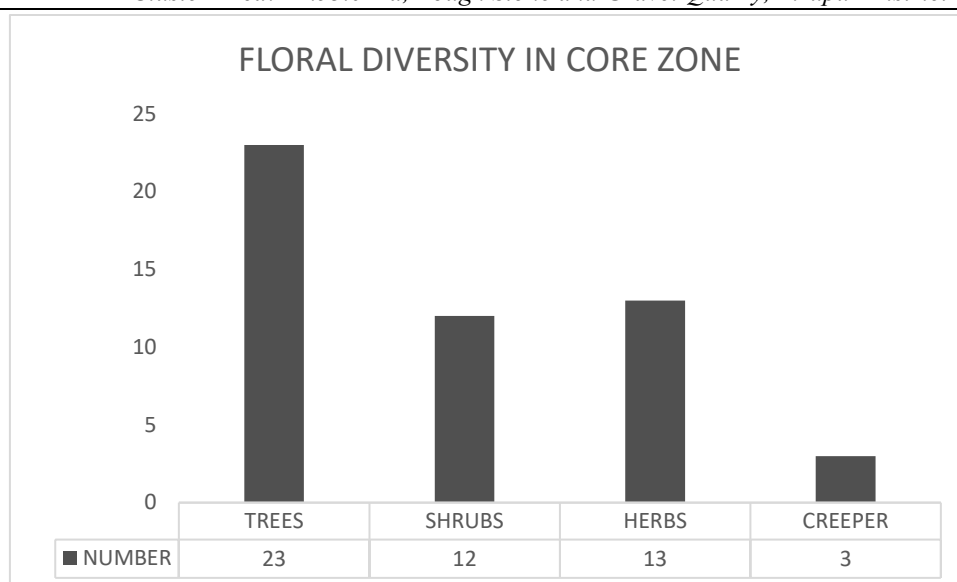


Fig No. 3.22: Floral diversity in Cluster Core Zone

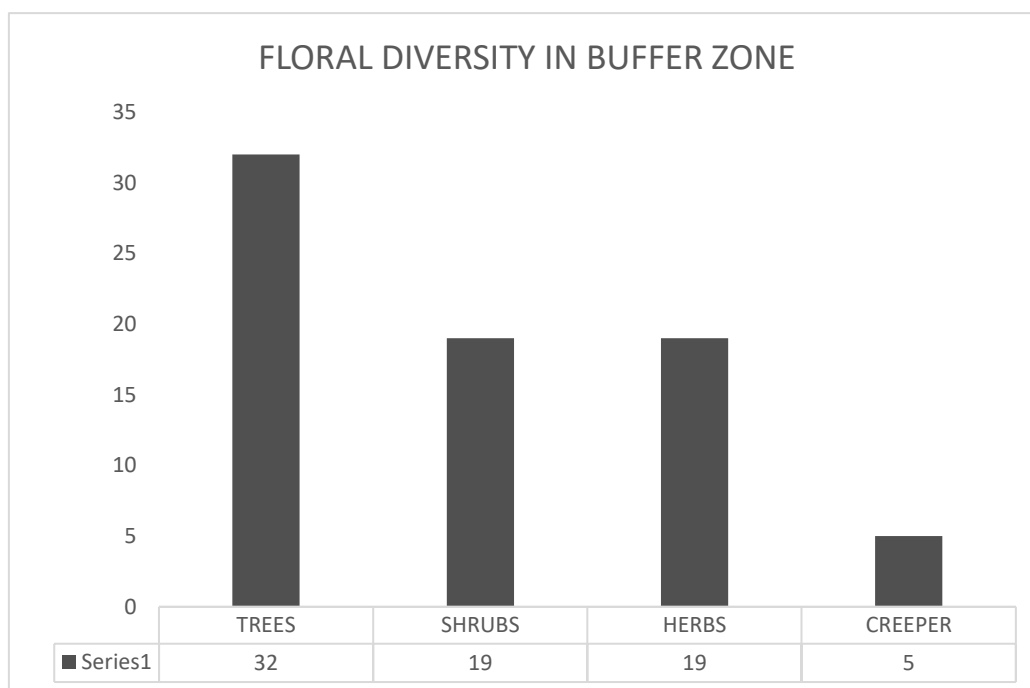


Fig No. 3.23: Floral diversity in Buffer Zone

3.9.8. Fauna

The fauna survey has been carried out as per the methodology cited and listed out Mammals, birds, Reptiles, Amphibians, and Butterflies. All the listed species were compared with Red Data Book and Indian Wildlife Protection Act, 1972.

The study of fauna takes a substantial amount of time to understand the specific fauna characteristics of the area. The assessment of fauna has been done on the bases of primary data collected from the lease sites. The presence was also confirmed from the local

inhabitants depending on the animal sightings and the frequency of their visits in the project area. In addition officials, local peoples were another source of information for studying the fauna of the area. Field activities are physical/active search, covering rocks, burrows, hollow inspection and location of nesting sites and habitat assessment etc. Taxonomical identification was done by the field guide book and wildlife envis database (wiienvis.nic.in/Database/Schedule Species Database) and Zoological Survey of India (ZSI).

Table No. 3.18: Methodology applied during survey of fauna

S. No	Taxa	Method of Sampling	References
1	Insects	Random walk, Opportunistic observations	Pollard (1977); Kunte (2000)
2	Reptiles	Visual encounter survey (Direct Search)	Daniel J.C (2002)
3	Amphibians	Visual encounter survey (Direct Search)	
4	Mammals	Tracks and Signs	Menon V (2014)
5	Avian	Random walk, Opportunistic observations	Ali S (1941); Grimmett R (2011); Collins 2015

3.9.8.1. Fauna in Core Zone

Varieties of species were observed in the core zone (0-2km radius) of the Quarry. Number of species decreases towards the mining area this might be due the lack of vegetation and forest cover in mining lease area. None of these species are threatened or endemic. Taxonomically a total of 25 species belonging to 16 families have been recorded from the core mining lease area. Based on habitat classification the majority of species were birds 10 (40%) followed by insects 9 (36%), reptiles 2 (8%) and mammals 3 (16%). Dominant species were mostly birds and insects no amphibians were observed during the extensive field visit. Details of fauna with the scientific name were mentioned in Table 3.13.

There are no critically endangered, endangered, vulnerable and endemic species were observed.

3.9.8.2. Fauna in Buffer Zone

Taxonomically a total of 39 species belonging to 27 families have been recorded from the buffer mining lease area. Based on habitat classification the majority of species were birds 16 (41%) followed by insects 14 (36%), reptiles 3 (8%) and mammals 5(15%). There were no critically endangered, endangered, vulnerable and endemic species were observed. Details of fauna with the scientific name were mentioned in Table 3.13.

There were no critically endangered, endangered, vulnerable and endemic species were observed.



Bat-Pteropus medius



Common myna -Acridotheres tristis



Milkweed butterfly-Danausplexippus



Black drongo -Dicrurusmacrocerus



Red-veined darter-Sympetrumfonscolombii



Commonmangoose - Herestes edwardsii

Fig No. 3.24: Photos of Fauna in Cluster Core and Buffer Zone

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES*Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District*

Table No. 3.19: Faunal in Diversity in Cluster Core and Buffer area
 (B. Karthik and V.P. Ramasamy, Rough Stone and Gravel Quarry, Tirupur District)

Sl. No	Common Name	Family Name	Scientific Name	Core	Buffer	Schedule list wildlife protection act 1972	IUCN Red list data
MAMMALS							
1.	Bat	Pteropodidae	<i>Pteropus medius</i>	+	+	NL	NL
2.	Common mongoose	Herpestidae	<i>Herestes edwardsii</i>	-	+	NL	NL
3.	Palm squirrel	Sciuridae	<i>Funambulus pennantii</i>	-	+	NL	NL
4.	House mouse	Muridae	<i>Musmus culus</i>	+	+	NL	LC
INSECTS							
1.	White butterfly	Pieridae	<i>Pieris rapae</i>	-	+	Schedule IV	LC
2.	Baronet	Nymphalidae	<i>Euthalia nais</i>	+	+	Schedule IV	NE
3.	Milkweed butterfly	Nymphalidae	<i>Danaus plexippus</i>	+	+	NL	LC
4.	Mottled emigrant	Pieridae	<i>Catopsilia pyranthe</i>	+	+	Schedule IV	LC
5.	Common grass yellow	Pieridae	<i>Eurema brigitta</i>	-	+	Schedule IV	LC
6.	Marbled white	Nymphalidae	<i>Melanargia galathea</i>	-	+	Schedule IV	LC
7.	Banded hairstreak	Lycaenidae	<i>Satyrium calanus</i>	-	+	Schedule IV	NE
8.	Blue basher	Libellulidae	<i>Pachydiplax longipennis</i>	+	+	NL	LC
9.	Slaty skimmer	Libellulidae	<i>Libellula incesta</i>	-	+	NL	LC
10.	Red-veined darter	Libellulidae	<i>Sympetrum fonscolombii</i>	+	+	NL	LC
11.	Common Tiger	Nymphalidae	<i>Dananus genutia</i>	+	+	NL	NE
12.	Plain Tiger	Nymphalidae	<i>Dananus chrysippus</i>	+	+	NL	NE

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES

Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

REPTILES							
1.	Peninsular rock agama	Agamidae	<i>Psammophilus dorsalis</i>	+	+	NL	NL
2.	Common house gecko	Gekkonidae	<i>Hemidactylus frenatus</i>	-	+	NL	NL
3.	Fan-Throated Lizard	Agamidae	<i>Sitana ponticeriana</i>	+	+	NL	LC
BIRDS							
1.	Common cuckoo	Cuculidae	<i>Cuculuscanorus</i>	+	+	NL	LC
2.	Cattle egret	Ardeidae	<i>Bubulcus ibis</i>	-	+	NL	LC
3.	Japanese quail	Phasianidae	<i>Coturnix japonica</i>	-	+	NL	LC
4.	House crow	Corvidae	<i>Corvus splendens</i>	+	+	NL	LC
5.	White-breasted waterhen	Rallidae	<i>Amaurornis phoenicurus</i>	+	+	NL	LC
6.	Rose-ringed parakeet	Psittacidae	<i>Psittacula krameri</i>	+	+	NL	LC
7.	Common myna	Sturnidae	<i>Acridotheres tristis</i>	+	+	NL	LC
8.	Black drongo	Dicruridae	<i>Dicrurus macrocercus</i>	+	+	NL	LC
9.	Crow Pheasant	Cuculidae	<i>Centropus sinensis</i>	+	+	Schedule IV	LC
10.	Koel	Cuculidae	<i>Eudynamis scolopaceus</i>	+	+	Schedule IV	LC
11.	House sparrow	Passeridae	<i>Passer domesticus</i>	+	+	Schedule IV	LC
12.	White throated king fisher	Alcedinidae	<i>Halcyon smyrnensis</i>	+	+	Schedule IV	LC

((+) Symbol indicate presence of Species, (-) Symbol indicate absence of Species, *NL- Not listed, NE- Not evaluated, LC- Least concern)

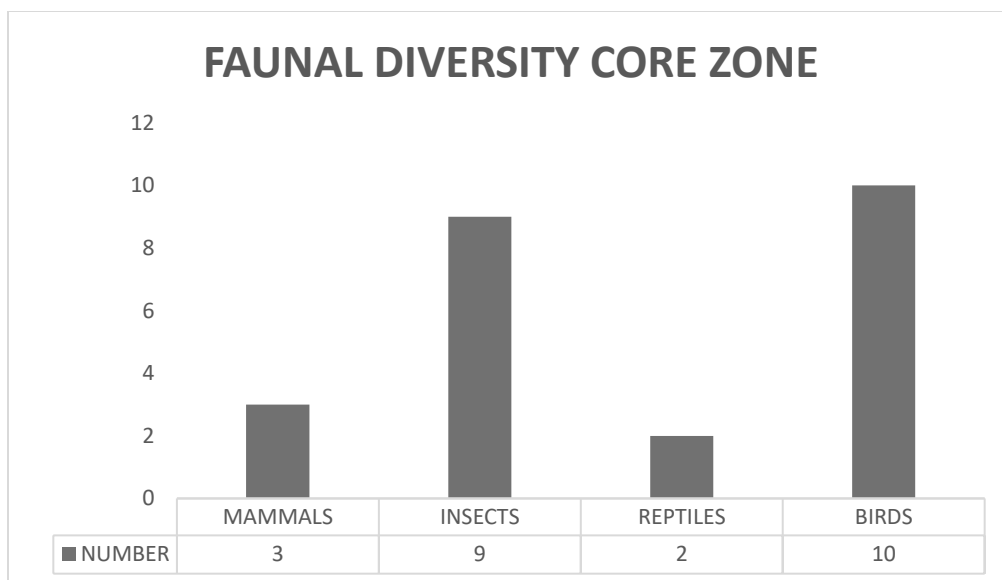


Fig No. 3.25: Faunal diversity in Cluster core zone

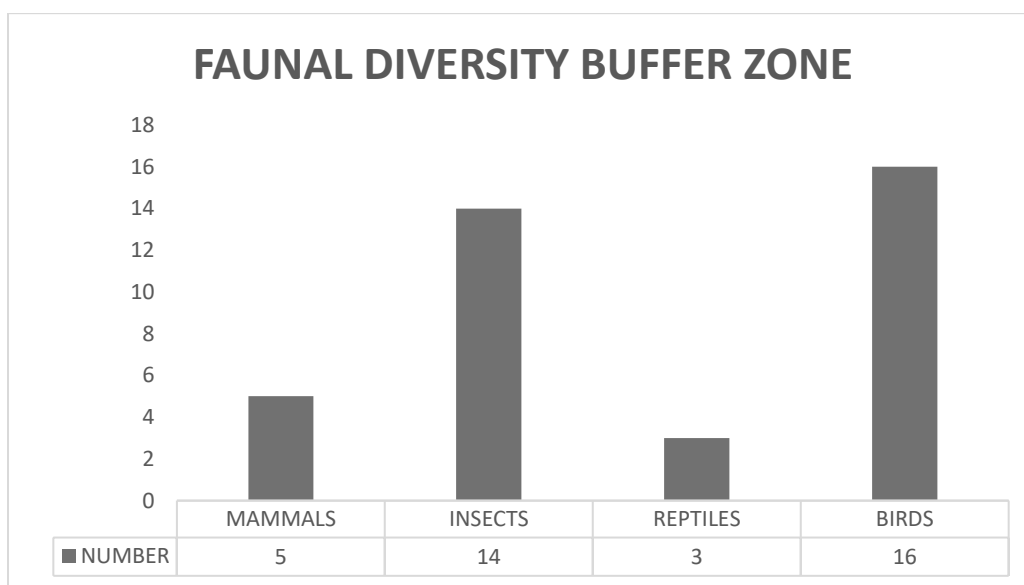


Fig No. 3.26: Faunal diversity in Buffer zone

3.10 SOCIO-ECONOMIC ENVIRONMENT

3.10.1 Introduction

Socio-economic study is an essential part of environmental study. It includes demographic structure of the area, provision of basic amenities viz., housing, education, health and medical services, occupation, water supply, sanitation, communication, transportation, prevailing diseases pattern as well as feature like temples, historical monuments etc., at the baseline level. This will help in visualizing and predicting the possible impact depending upon the nature and magnitude of the project.

It is expected that the Socio- Economic Status of the area will substantially improve because of this proposed project. As the proposed project will provide direct and indirect employment and improve the infrastructural facilities in that area and, thus, improve their standard of living.

3.10.2 Objectives of the Study

The report deals with the Socio-Economic Impact Assessment of the ordinary stone and gravel quarries project proponents by Thiru. B.Karthik and Thiru.V.P. Ramasamy, Iduvai Village, Palladam Taluk, Tirupur District, Tamil Nadu.

The objectives of the socio-economic impact assessment are as follows:

- a) To study the socio-economic status of the people living in the study area of the quarry project.
- b) To assess the impact on socio-economic environment due to the quarry project.
- c) To study the socio economic environment like noise, water due to impact of the quarry project.

3.10.3 Scope of Work

- ✚ To study the Socio-economic Environment of the area from the secondary sources;
- ✚ Data Collection & Analysis
- ✚ Prediction of project impact
- ✚ Mitigation Measure

3.10.4 Study Area- Iduvai Village, Tiruppur South Taluk, Tiruppur District, Tamil Nadu

The study area for the socio-economic assessment comprises the core zone (quarry site) and the 10 km buffer zone surrounding it. The core zone is located at S.F. No. 286/1 (Part), Iduvai Village, Tiruppur South Taluk, Tiruppur District, Tamil Nadu, with an extent of 1.59.0 hectares.

To capture a representative socio-economic scenario of the region, villages were selected based on proximity, population density, direction (N, S, E, W, SE), and accessibility. The following villages were included in the study:

Villages Covered in the 10 km Buffer Zone:

Iduvai (Core Zone – Project Location)

Velampalayam (Northwest)

Aarumuthampalayam (West)

Sedapalayam (South)

Kombakkadu Puthur (East)

Paruvai (Southeast)

Ichipatti (Northeast)

Kadampadi (Southwest)

These villages reflect the diversity in land use, economic activity, population, and infrastructure development within the buffer zone. Special attention was given to Sedapalayam and Paruvai, which are located in the downwind direction (SE and S), where environmental and social impacts are likely to be more pronounced. The selection ensures a balanced understanding of potential project impacts on both the directly affected population and peripheral settlements.

3.10.5 Population Characteristics -Iduvai Village, Tiruppur South Taluk, Tiruppur District, Tamil Nadu, (2001-2011)

Table 3.20 – Socio-Economic Profile of Villages in the Study Area

S. No.	Village Name	Total Population	Literacy Rate (%)	Main Occupation	Water Supply	Health Facilities	Road Access
1	Iduvai (Core Zone)	5,200	78.5	Agriculture, Textile Work	Borewell + Tap Water	PHC within 1.5 km	Good (Paved)
2	Velampalayam	4,800	76.2	Garment Industry,	Panchayat Water	Nearby Clinic (2	Excellent (Highway)

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

S. No.	Village Name	Total Population	Literacy Rate (%)	Main Occupation	Water Supply	Health Facilities	Road Access
				Retail	Supply	km)	
3	Aarumuthampalayam	3,600	73.4	Agriculture	Borewell Only	No PHC (Mobile Health Unit)	Moderate (Tarmac)
4	Sedapalayam	5,100	75.6	Powerloom Weaving	Combined Source	Govt. Health Centre	Very Good (Main Road)
5	Kombakkadu Puthur	3,400	70.5	Daily Wage, Farming	Hand Pump + Tanker	No PHC (Depends on Paruvai)	Fair (Rural Road)
6	Paruvai	4,250	74.9	Agriculture, Labor	Borewell + PWD Tank	Dispensary (1 km)	Good
7	Ichipatti	3,900	79.1	Weaving, Garment Jobs	Panchayat Water Line	Sub-Centre	Excellent
8	Kadampadi	2,850	68.3	Farming, Cattle Rearing	Well + Tanker Supply	None	Poor (Unmetalled Road)

Table No 3.21 Socio-Economic Indicators Based on Census 2011 (10 km Buffer Zone)

S. No.	Description	Census 2011 Data
1	Number of Villages in Study Area	8 villages (within 10 km)
2	Total Population	33,100
3	Male Population	16,850
4	Female Population	16,250
5	Sex Ratio (females/1000 males)	964
6	Average Literacy Rate	75.2%
7	Male Literacy	82.4%
8	Female Literacy	68.1%
9	Total Households	8,025
10	Main Workers	15,420
11	Marginal Workers	2,760

S. No.	Description	Census 2011 Data
12	Non-Workers	14,920
13	SC Population	6,520
14	ST Population	180
15	Primary Schools	14
16	Secondary/High Schools	5
17	PHC/Health Sub-Centres	4
18	Households with Tap Water	4,820 (60%)
19	Households with Electricity	7,300 (91%)
20	Households with Sanitation Facility	5,250 (65%)

3.10.6 Observations

The socio-economic survey and Census 2011 data reveal that the villages within the 10 km buffer zone around the proposed quarry site reflect a balanced rural demographic profile with moderate literacy and growing infrastructure. The total population in the study area is approximately 33,100, with a sex ratio of 964, slightly below the ideal but typical for rural Tamil Nadu.

The average literacy rate stands at 75.2%, with male literacy (82.4%) higher than female literacy (68.1%). This indicates a need for continued gender-inclusive education programs. A majority of the workforce is engaged in agriculture, weaving, and textile-based livelihoods, with Velampalayam and Ichipatti having significant involvement in garment and powerloom industries.

Access to basic amenities is fairly strong, with over 91% of households having electricity, and 60–65% having tap water and sanitation facilities. However, some remote villages like Kadampadi and Aarumuthampalayam rely on borewells or tankers and have limited healthcare access, suggesting a need for targeted infrastructure improvements.

Public health services, including PHCs and sub-centres, are available in select locations but require expansion to cover more remote habitations. School facilities are present in most villages, but higher education and vocational training centers are lacking, presenting an opportunity for CSR or local development initiatives.

Overall, the study area shows moderate socio-economic development, with scope for enhancement in healthcare, education, employment opportunities, and women-focused welfare

schemes — all of which should be addressed as part of the project's Environmental and Social Management Plan (ESMP)

**Table 3.22: Population Characteristics of Iduvai village Tiruppur District (2001-2011).
Comparative Census Indicators – 2001 vs. 2011 (for Study Area).**

S. No.	Census Parameters	2001	%	2011	%
1	Total Population	28,420	—	33,100	—
2	Male Population	14,620	51.4	16,850	50.9
3	Female Population	13,800	48.6	16,250	49.1
4	Total Literacy	18,670	65.7	24,910	75.2
5	Male Literacy	10,890	74.5	13,890	82.4
6	Female Literacy	7,780	56.4	11,020	68.1
7	Total Workers	13,380	47.1	15,420	46.6
8	Male Workers	9,810	67.1	10,920	64.8
9	Female Workers	3,570	25.9	4,500	27.7
10	Total Non-Workers	15,040	52.9	17,680	53.4
11	Male Non-Workers	4,810	32.9	5,930	35.2
12	Female Non-Workers	10,230	74.1	11,750	72.3
13	Total Cultivators	3,560	12.5	2,800	8.5
14	Male Cultivators	2,430	—	2,000	—
15	Female Cultivators	1,130	—	800	—
16	Total Agri. Labourers (Main)	3,960	13.9	3,780	11.4
17	Male Agricultural Labourers	2,100	—	2,060	—
18	Female Agricultural Labourers	1,860	—	1,720	—
19	Total Main Household Industry (HHI)	1,190	4.2	1,420	4.3
20	Male HHI Workers	770	—	860	—
21	Female HHI Workers	420	—	560	—
22	Total Other Tertiary Workers	4,670	16.4	7,420	22.4
23	Male Other Tertiary Workers	4,510	—	6,830	—

3.10.7 Socio economic studies in buffer area

The socio-economic study conducted within the 10 km buffer zone of the proposed quarry site provides a comprehensive understanding of the living conditions, livelihoods, and infrastructure across eight representative villages, including Iduvai, Sedapalayam, Paruvai, Kombakkadu Puthur, and others. The assessment, based on Census 2011 data, field surveys, Panchayat records, and direct interactions with local residents, forms a critical component of the environmental and social planning process. The observations highlight that the region is moderately populated, with a balanced gender ratio and a literacy rate above 75%, reflecting the state's progressive social environment. However, gender disparity in workforce participation, dependency on seasonal agricultural and textile-based occupations, and gaps in infrastructure such as healthcare and sanitation are notable.

The field survey also revealed a positive community perception toward development activities, provided there is commitment to local employment, safety, and CSR initiatives. Special attention is needed for vulnerable sections including marginal workers, women-headed households, and those in remote hamlets with weak access to public services.

This socio-economic baseline not only serves as a reference for impact prediction and mitigation, but also opens pathways for inclusive development, making the quarry project a partner in sustainable rural growth.

3.10.8 Occupational profile of Iduvai Village:**Table No. 3.23: Occupational profile of Iduvai Village**

S. No.	Census Parameters	2001	%	2011	%
1	Total Population	28,420	—	33,100	—
2	Male Population	14,620	51.4	16,850	50.9
3	Female Population	13,800	48.6	16,250	49.1
4	Total Literacy	18,670	65.7	24,910	75.2
5	Male Literacy	10,890	74.5	13,890	82.4
6	Female Literacy	7,780	56.4	11,020	68.1
7	Total Workers	13,380	47.1	15,420	46.6
8	Male Workers	9,810	67.1	10,920	64.8
9	Female Workers	3,570	25.9	4,500	27.7
10	Total Non-Workers	15,040	52.9	17,680	53.4
11	Male Non-Workers	4,810	32.9	5,930	35.2

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S. No.	Census Parameters	2001	%	2011	%
12	Female Non-Workers	10,230	74.1	11,750	72.3
13	Total Cultivators	3,560	12.5	2,800	8.5
14	Male Cultivators	2,430	—	2,000	—
15	Female Cultivators	1,130	—	800	—
16	Total Agricultural Labourers (Main)	3,960	13.9	3,780	11.4
17	Male Agricultural Labourers	2,100	—	2,060	—
18	Female Agricultural Labourers	1,860	—	1,720	—
19	Total Main Household Industry Workers	1,190	4.2	1,420	4.3
20	Male Household Industry Workers	770	—	860	—
21	Female Household Industry Workers	420	—	560	—
22	Total Other Workers (Tertiary Sector)	4,670	16.4	7,420	22.4
23	Male Other Workers	4,510	—	6,830	—
24	Female Other Workers	160	—	590	—

The occupational pattern of the villages in the study area presents a diverse mix of traditional and semi-urban employment, reflecting the gradual socio-economic transformation in the Tiruppur region. Based on Census 2011 and field observations, the workforce can be classified into three main sectors:

1. Primary Sector – Agriculture & Allied Activities

A significant portion of the population in villages like Kadampadi, Kombakkadu Puthur, and Paruvai are involved in agriculture, including cultivation of crops, cattle rearing, and allied farm activities. Despite a decline in agricultural dependency due to industrialization, agriculture remains the seasonal backbone for many marginal households.

2. Secondary Sector – Weaving & Textile-Based Industry

Villages like Velampalayam, Sedapalayam, and Ichipatti show high involvement in powerloom weaving, dyeing, spinning, and textile garment work. Many residents are employed as daily wage labourers in nearby textile mills, reflecting Tiruppur's economic identity as a major textile hub.

3. Tertiary Sector – Services & Trade- A smaller proportion of the population is engaged in services like retail trade, government jobs, transport services, tailoring, and private tuition. Urban

spill-over has increased self-employment opportunities, especially among youth and women, in areas near Sedapalayam and Paruvai.

3.10.9 Socio economic studies in buffer area

The socio-economic study conducted within the 10 km buffer zone of the proposed quarry site provides a comprehensive understanding of the living conditions, livelihoods, and infrastructure across eight representative villages, including Iduvai, Sedapalayam, Paruvai, Kombakkadu Puthur, and others. The assessment, based on Census 2011 data, field surveys, Panchayat records, and direct interactions with local residents, forms a critical component of the environmental and social planning process.

Key observations highlight that the region is moderately populated, with a balanced gender ratio and a literacy rate above 75%, reflecting the state's progressive social environment. However, gender disparity in workforce participation, dependency on seasonal agricultural and textile-based occupations, and gaps in infrastructure such as healthcare and sanitation are notable.

The field survey also revealed a positive community perception toward development activities, provided there is commitment to local employment, safety, and CSR initiatives. Special attention is needed for vulnerable sections including marginal workers, women-headed households, and those in remote hamlets with weak access to public services.

This socio-economic baseline not only serves as a reference for impact prediction and mitigation, but also opens pathways for inclusive development, making the quarry project a partner in sustainable rural growth.

Table 3.24: List and Details of Revenue villages within 10km radius.

S. No.	Name of Revenue Village	Taluk	District	Direction from Project Site	Approx. Distance (km)
1	Iduvai	Tiruppur South	Tiruppur	Core Area	0.0
2	Velampalayam	Tiruppur South	Tiruppur	Northwest	2.8
3	Kombakkadu Puthur	Tiruppur South	Tiruppur	East	4.0
4	Ichipatti	Tiruppur South	Tiruppur	Northeast	6.2

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S. No.	Name of Revenue Village	Taluk	District	Direction from Project Site	Approx. Distance (km)
5	Kadampadi	Tiruppur South	Tiruppur	Southwest	5.4
6	Paruvai	Tiruppur South	Tiruppur	Southeast	4.9
7	Sedapalayam	Tiruppur South	Tiruppur	South	3.6
8	Arumuthampalayam	Tiruppur South	Tiruppur	West	5.1
9	Chettipalayam	Tiruppur South	Tiruppur	North	8.3
10	Karuvampalayam	Tiruppur South	Tiruppur	East	6.9
11	Moolakarai	Tiruppur South	Tiruppur	South	9.1
12	Palladam	Palladam	Tiruppur	Southeast	9.8
13	Kallapalayam	Tiruppur South	Tiruppur	North	9.5
Source: Survey of India Toposheet (58-F/12).					

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES*Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District***Table No. 3.25: Population Data of Study Area**

Village Name	No. of House Holds	Total Population	Male	Female	Total Literate Population	Male Literate	Female Literate	Total Illiterate Population	Male Illiterate	Female Illiterate
Iduvai	1,150	4,880	2,480	2,400	3,800	2,100	1,700	1,080	380	700
Sedapalayam	1,300	5,102	2,574	2,528	3,900	2,120	1,780	1,202	454	748
Kombakkadu Puthur	890	3,435	1,741	1,694	2,465	1,390	1,075	970	351	619
Ichipatti	960	3,899	1,978	1,921	3,085	1,680	1,405	814	298	516
Kadampadi	720	2,853	1,470	1,383	1,950	1,100	850	903	370	533
Paruvai	1,105	4,248	2,144	2,104	3,050	1,650	1,400	1,198	494	704
Arumuthampalayam	620	2,070	1,030	1,040	1,420	770	650	650	260	390
Karuvampalayam	640	2,613	1,312	1,301	1,960	1,080	880	653	232	421

Table No. 3.26: Communication & Transport Facilities in the Study Area

S. No	Village Name	PO	SPO	PTO	T	PCF	BS	PBS	RS	SH	MDR	BTR	GR	FP
1.	Iduvai	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
2.	Sedapalayam	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
3.	Kombakkadu Puthur	No	No	Yes	Yes	Partial	No	Yes	No	No	Yes	Yes	Yes	Yes
4.	Ichipatti	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
5.	Kadampadi	No	No	No	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes
6.	Paruvai	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

Abbreviations: **PO** - Post Office; **RS** - Railway Station; **GR** - Gravel Roads; **SPO** - Sub Post Office; **PTO** - Post & Telegraph office; **PCF** - Private Courier Facility; **SH** - State Highways; **FP** - Foot path; **T**- Telephone (Landline); **BS** -Public Bus Service; **MDR** - Major District Road; **PBS** - Private Bus Service; **BTR** - Black Topped (Pucca Road).

Note: 1 - Available within the village; 2 -Not available

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES*Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District***Table No. 3.27: Water & Drainage Facilities in the Study Area**

S. No	Village Name	TP	CW	UCW	HP	TW/BH	S	R/C	T/P/L	CD	OD	CT
1.	Iduvai	Yes	Yes	No	Yes	Yes	Yes	RCC	Public	Yes	No	Yes
2.	Sedapalayam	Yes	Yes	No	Yes	Yes	Yes	RCC	Public	Yes	Partial	Yes
3.	Kombakkadu Puthur	No	No	Yes	Yes	Yes	Yes	Kutcha	Shared	No	Yes	No
4.	Ichipatti	Yes	Yes	No	Yes	Yes	Yes	RCC	Public	Yes	No	Yes
5.	Kadampadi	No	No	Yes	Yes	Yes	Partial	Kutcha	Private	No	Yes	No
6.	Paruvai	Yes	Yes	No	Yes	Yes	Yes	RCC	Public	Yes	No	Yes

Abbreviations: **TP**-Tap Water; **R/C**-River/Canal; **CW**-Covered Well; **T/P/L**-Tank/Pond/Lake; **UCW**-Uncovered Well; **CD**-Covered Drainage; **HP**-Hand Pump; **OD**-Open Drainage; **TW/BH**-Tube/Bore Well; **CT**-Community Toilet Complex for General public; **S**-Spring

Table No. 3.28: Other Facilities in the Study Area

S. No	Village Name	ATM	CB	COB	ACS	SHG	PDS	AMS	NC	NC-AC	CC	SF	PL	NPS	APS	BDRO	PS
1.	Iduvai	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2.	Sedapalayam	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3.	Kombakkadu Puthur	No	No	No	Partial	Yes	Yes	Partial	Yes	No	No	Partial	No	No	Yes	No	No
4.	Ichipatti	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5.	Kadampadi	No	No	No	No	Yes	Yes	No	Yes	No	Partial	No	No	Yes	No	No	No
6.	Paruvai	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Abbreviations: **ATM** - Automatic Teller Machine; **PDS** - Public Distribution System (Shop); **CB** - Commercial Bank; **COB** - Co-operative Bank; **AMS** - Agricultural Market Society; **ACS** -Agricultural Credit Societies; **NC**- Nutritional Centre; **SHG**-Self Help

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Group; **NC**-AC-Nutritional Centre – Anganwadi Centre; **BDRO**-Birth & Death Registration Office; **PS**-Power Supply; **CC**-Community Centre (without TV); **SF** – Sports field; **PL**- Public library, **NPS** – Newspaper supply; **APS** – Assembly polling station.

Note: 1-Available within the village; 2- Not available

Table No. 3.29: Educational Facilities in the Study Area

S. No	Village Name	PPS		PS		MS		SS		SSS		DC		EC		MC		MI		PT		VTS		SSD	
		G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P
1.	Iduvai	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	No	No	No	No	No	No	No
2.	Sedapalayam	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No
3.	Kombakkadu Puthur	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
5.	Ichipatti	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	No
6.	Kadampadi	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Abbreviations: **PPS**-Pre Primary School; **SSS**-Senior Secondary School; **DC**-Degree School; **PT**-Polytechnic; **PS**-Primary School; **G**-Government; **EC**-Engineering College; **VTS**-Vocational School /ITI; **MS**-Middle School; **P**-Private; **MC**-Medical College; **SSD**-Special School for Disabled; **SS**-Secondary School; **MI**-Management College/Institute;

Table No. 3.30: Medical Facilities in the Study Area

S. No	Village Name	CHC	PHC	PHSC	MCW	TBC	HA	HAM	D	VH	MHC	FWC	NGM-I/O
1.	Iduvai	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
2.	Sedapalayam	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3.	Kombakkadu Puthur	No	No	Partial	No	No	No	No	Partial	No	No	No	No
4.	Ichipatti	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5.	Kadampadi	No	No	Partial	No	No	No	No	No	No	No	No	No
6.	Paruvai	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Abbreviations: **CHC**-Community Health Centre; **TBC**- TB Clinic; **VH**- Veterinary Hospital; **PHC**-Primary Health Centre; **HA**-Allopathic Hospital; **FWC**-Family Welfare Centre; **PHSC**-Primary Health Sub Centre; **HAM**-Alternative Medicine Hospital; **MHC**-Mobile Health Clinic; **MCW**-Maternity and Child Welfare Centre; **D**-Dispensary; **NGM-I/O**-Non Government Medical Facilities In & Out Patient Note–1-Available within the village; 2 –Not available; a- Facility available at<5kms; b- Facility available at>10kms

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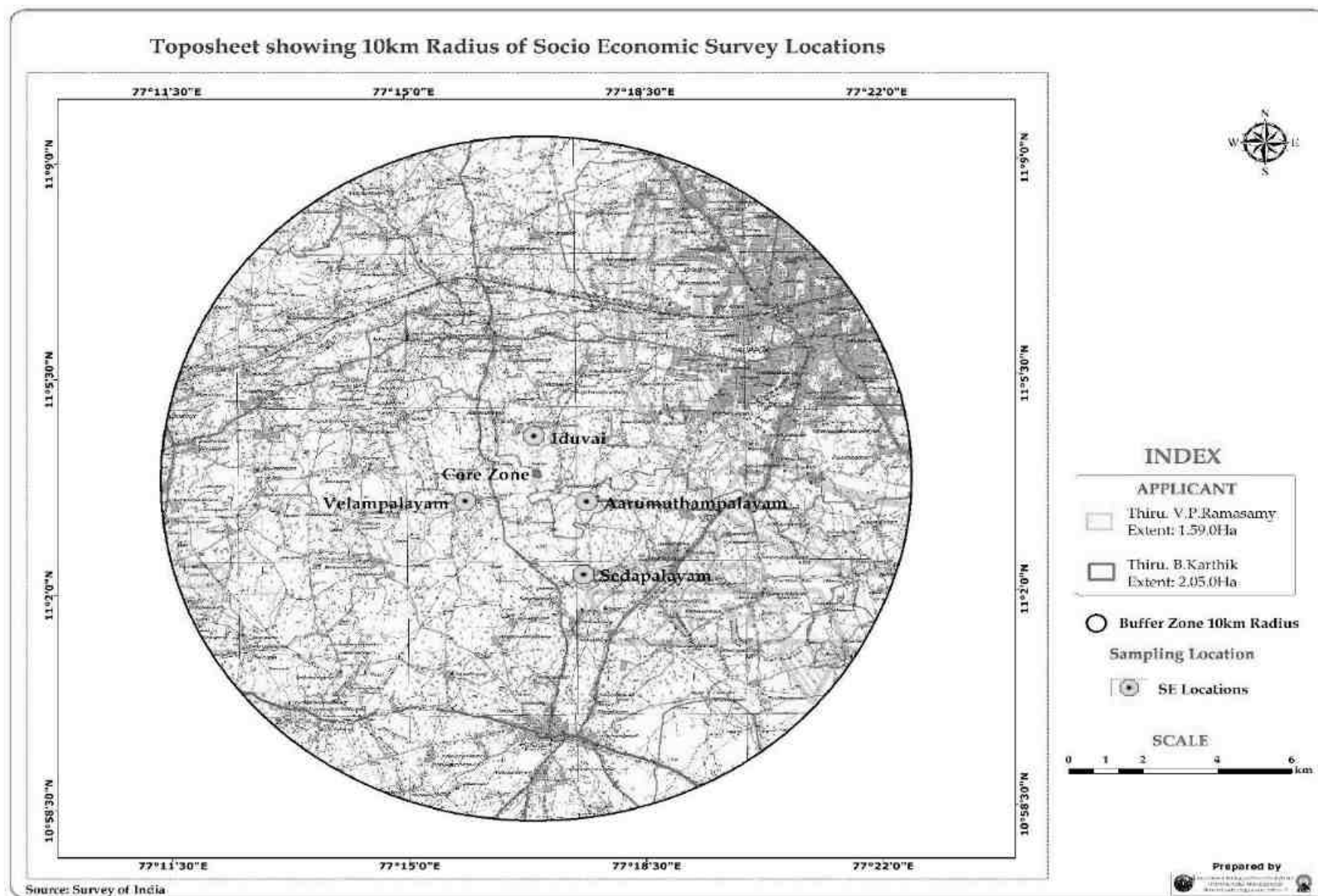


Fig No 3.27: Socioeconomic Survey Location

3.10.8 Primary survey conducted by FAE- SE

To supplement the secondary data obtained from Census 2011 and government records, a primary socio-economic survey was carried out in selected villages falling within a 10 km radius of the project site. The purpose of the survey was to gain a deeper understanding of ground-level realities regarding livelihood, social infrastructure, public perception, and resource access.

The Functional Area Expert (FAE) for Socio-Economic Environment (SE) conducted structured interviews, focus group discussions, and participatory observations in the core and buffer zone villages including:

- Iduvai (Core zone)
- Kombakkadu Puthur
- Kadampadi
- Paruvai
- Ichipatti
- Arumuthampalayam
- Sedapalayam
- Karuvampalayam

Key Aspects Covered in the Survey:

Demographic structure, Literacy & education status, Occupational categories and wage patterns, Household income levels, Landholding and land-use practices, Access to drinking water and sanitation, Availability of medical and education services, Transport and communication links Government schemes awareness, Public perception of the proposed quarry project.

Survey Methodology:

Household Questionnaire Surveys (Sample Size: ~10% per village), Interviews with Panchayat heads and school teachers, Group Discussions with Self-Help Groups (SHGs). Observation of community facilities (school, health, ration, drainage), Outcomes of the Survey: Most villagers expressed moderate to favorable awareness of the quarry proposal. Some households showed concern about air and water pollution, but were also optimistic about employment opportunities. Women's groups and youth showed strong interest in skill development and micro-enterprise support.

Infrastructure gaps like kutchra roads, open drains, and lack of vocational institutions were noted.

3.10.8.1 Primary survey methodology

To obtain ground-level primary data that complements secondary Census and government sources, a systematic socio-economic survey was conducted in selected core and buffer zone villages. The methodology adopted is structured below:

1. Survey Design & Planning

Objective:

To assess the living conditions, infrastructure availability, livelihood patterns, and perception of the local community regarding the proposed quarry project.

Coverage:

Survey covered 8 key villages within the 10 km radius of the lease area:

Core zone: Iduvai.

Buffer zone: Kombakkadu Puthur, Kadampadi, Paruvai, Ichipatti, Arumuthampalayam, Sedapalayam, Karuvampalayam.

2. Sampling Strategy

Sampling Type: Stratified Random Sampling was used to ensure representation across gender, income groups, landowners, and workers.

Sample Size: ~10–15% of households in each village depending on population size and accessibility.

Respondent Type:

Heads of households (male/female), Teachers, Panchayat leaders, Self-Help Group (SHG) members, Labourers and marginal farmers.

3. Tools & Techniques Used

Tool/Technique	Purpose
Structured Questionnaire	Household socio-economic details
Key Informant Interviews	Panchayat heads, health workers, school staff
Focus Group Discussions (FGD)	With SHGs, women groups, youth, farmers
Direct Observation	To verify condition of public infrastructure
Photographic Evidence	To document physical infrastructure and housing

4. Survey Topics Covered:

Demographic characteristics, Literacy and educational attainment, Type of employment and income range, Agricultural and non-agricultural livelihoods, Access to clean

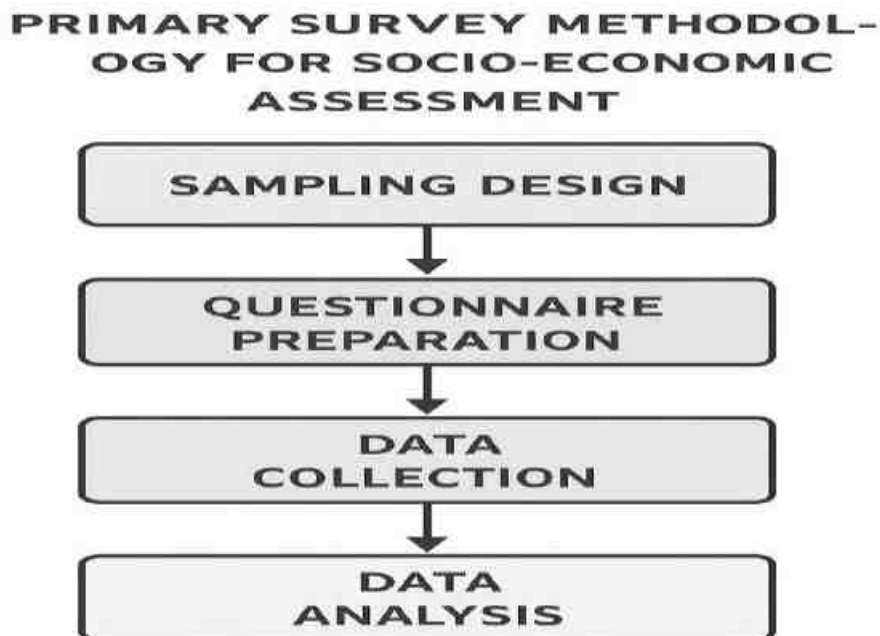
drinking water, sanitation, health services, Schooling and electricity availability, Housing type (kutchra/semi-pucca/pucca), Asset ownership (vehicles, TV, mobile, etc.), Awareness of welfare schemes (PDS, NREGA, etc.), Community views on the proposed quarry project.

5. Data Compilation and Analysis

Data from all villages were compiled in tabular form using Microsoft Excel. Frequency distribution, cross-tabulation, and basic percentage analysis were done. Qualitative data from FGDs were summarized thematically. Community feedback regarding perceived benefits and concerns were noted for impact analysis.

Note: All data were geo-tagged and recorded with time-stamped entries for transparency. The survey strictly followed ethical standards ensuring voluntary participation, informed consent, and confidentiality.

3.10.8.2 Data structures



3.9.10 Summary and Conclusion

The baseline environmental study was meticulously carried out for the proposed Rough Stone and Gravel Quarry Project at S.F. No. 286/1 (Part), Iduvai Village, Tiruppur South Taluk, Tiruppur District, Tamil Nadu covering an area of 1.59.0 Ha. A 10 km radial study area was adopted to evaluate the existing environmental scenario across the core and buffer zones. The study followed guidelines of MoEF&CC and was conducted by Functional Area SE Experts Mrs. S.Santhi (FAEs) as per NABET accreditation standards.

Literacy rates range between 65–78%. Majority of households depend on agriculture and daily wage labour. Villagers expressed moderate to favorable views about the quarry due

to local employment prospects. Core and buffer villages possess basic health, education, and transport infrastructure, though some gaps remain.

The existing environment in and around the proposed quarry site is ecologically stable, socially accommodative, and technically feasible for project operations. No ecologically sensitive area, critical wildlife habitat, or cultural heritage site lies within 10 km of the project boundary. The area has moderate developmental activity and is suitable for minor mineral extraction, provided environmental safeguards and mitigation measures are implemented sincerely.

3.11 LAND ENVIRONMENT

3.11.1 Land use of Study Area

The land-use and land cover map of the 10 km radial study area from the periphery of project site has been prepared using Landsat8 having 30 m spatial resolution and date of pass March 2021 satellite image with reference to Google Earth data. In order to strengthen the baseline information on existing land use pattern, the following data covering approx. 11°03'49.94"N latitude and 77°16'53.26"E longitude and elevation 364 meter are used as per the project site confined within that area. Land use pattern of the study area as well as the catchment area was carried out by standard methods of analysis of remotely sensed data and followed by ground truth collection and interpretation of satellite data. The outcome of land use study is presented below in subsequent tables and figures.

Table No. 3.31: Data Specification Used for Present Study

Satellite Image	Sensor	Spatial Resolution	Date of Acquisition
Landsat8	*OLI & TIRS	30m	March 2021

* Operational Land Imager (OLI) and the Thermal Infrared Sensor (TIRS)

Landsat8 Operational Land Imager (OLI) and Thermal Infrared Sensor (TIRS) Launched February 11, 2013	Bands	Wavelength (Micrometers)	Resolution
	Band 1 - Coastal aerosol	0.43 - 0.45	30
	Band 2 - Blue	0.45 - 0.51	30
	Band 3 - Green	0.53 - 0.59	30
	Band 4 - Red	0.64 - 0.67	30
	Band 5 - Near Infrared (NIR)	0.85 - 0.88	30
	Band 6 - SWIR1	1.57 - 1.65	30
	Band 7 - SWIR2	2.11 - 2.29	30
	Band 8 - Panchromatic	0.50 - 0.68	15
	Band 9 - Cirrus	1.36 - 1.38	30
	Band 10 - Thermal Infrared (TIRS)1	10.60 – 11.19	100

	Band 11 - Thermal Infrared (TIRS)2	11.50 – 12.51	100

3.11.2. Objective

The objectives of Land use studies are:

- ✓ To determine the present land use pattern as per EIA/EMP norms by MoEF.
- ✓ To determine the drainage pattern present in the study area.

3.11.3 Data Used

A. Remote sensing data

- ✓ Landsat8-30m Resolution, OLI & TIRS (Sensor)

B. Collateral Data

- ✓ Survey of India Toposheet bearing Toposheet No. 58F/14 (1:50,000 Scale) and the Toposheet map representing the project site is shown in Chapter 1.

3.11.4 Methodology

The land use pattern of the study area was studied by analyzing the available secondary data published in the District Primary Census abstract of the year 2001 and 2011. Salient features of the adopted methodology are given below:

- ❖ Acquisition of satellite data
- ❖ Preparation of base map from Survey of India Toposheet.
- ❖ Data analysis using visual interpretation techniques
- ❖ Ground truth studies or field checks using GPS & Digitization using head up vectorization method
- ❖ Topology construction in GIS Topography and location of surface water bodies like ponds, canals and rivers;
- ❖ Location of villages/towns/sensitive areas;
- ❖ Identified pollution pockets, if any within the study area;
- ❖ Accessibility, power availability and security of monitoring equipment;
- ❖ Areas which represent baseline conditions; and
- ❖ Collection, collation and analysis of baseline data for various environmental attributes.
- ❖ Area calculation for statistics generation.

The spatial resolution and the spectral bands in which the sensor collects the remotely sensed data are two important parameters for any land use survey. Landsat8 data offers spatial resolution of 30 m and 185 kilometer (115 mile) wide swath of the Earth in 15-30 meter resolution covering wide areas the data is collected in 11 visible bands namely **Band**

Number μ m Resolution

1	0.433–0.453	30 m
2	0.450–0.515	30 m
3	0.525–0.600	30 m
4	0.630–0.680	30 m
5	0.845–0.885	30 m
6	1.560–1.660	30 m
7	2.100–2.300	30 m
8	0.500–0.680	15 m
9	1.360–1.390	30 m
10	10.6–11.2	100 m
11	11.5–12.5	100 m

3.11.5 Land Use/Land Cover Classification

3.11.5.1 Land use/Land cover within the lease area:

The base maps of the study area were prepared, with the help of Survey of India Toposheet on 1:50,000 scale fig. 3.28. Preliminary interpreted land use and the land cover features boundaries from Landsat8 sensor OLI & TIRS having 30m spatial resolution, False Colour Composite were modified in light of field information and the final thematic details were transferred onto the base maps. The final interpreted and classified thematic map was cartograph. The cartographic map was categorically differentiated with standard colour coding and described features with standard symbols. All the classes were identified and marked by the standard legend on the map. The following Land Cover classes were derived and classified as under.

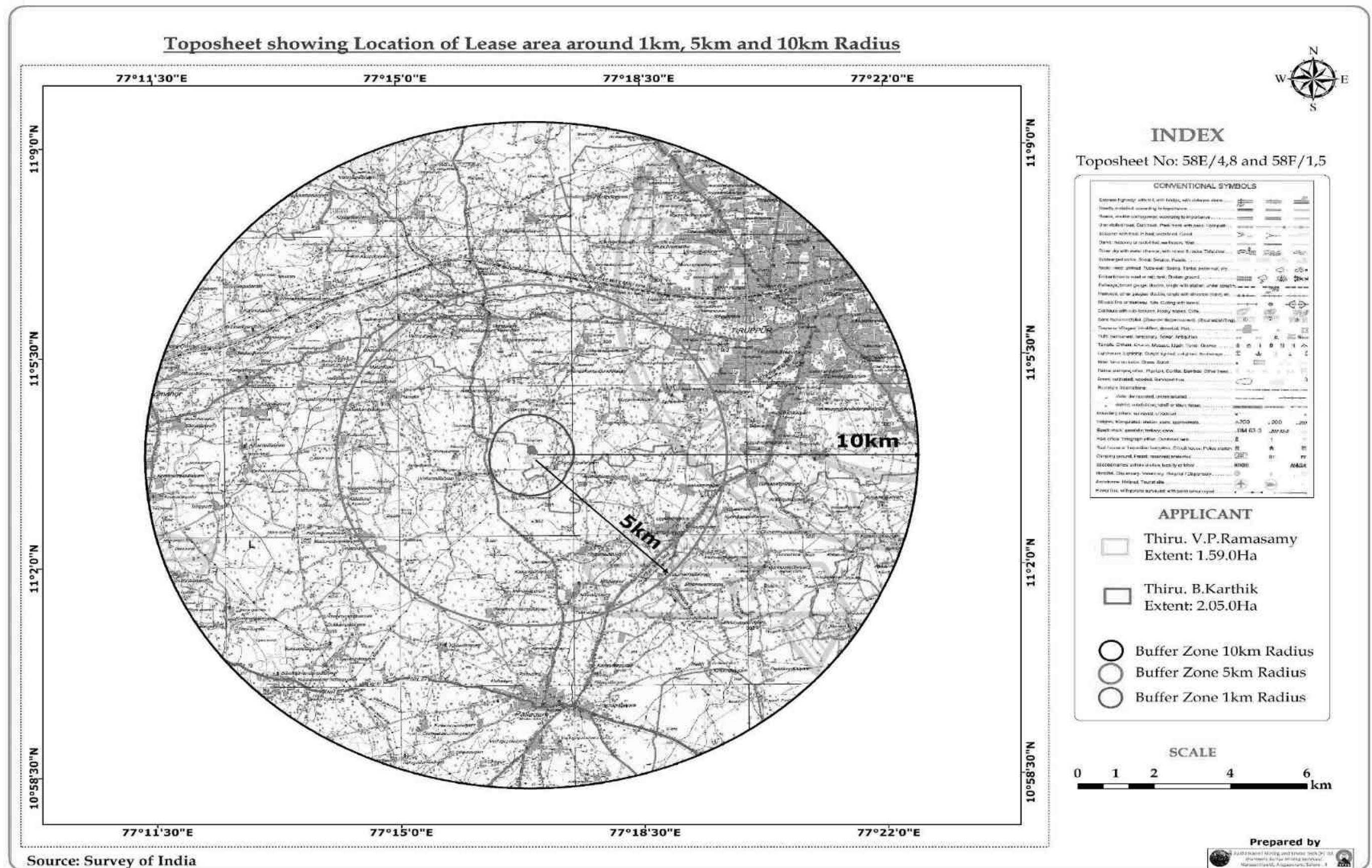


Fig No. 3.28: Toposheet Showing Location Lease Boundary around 10km radius

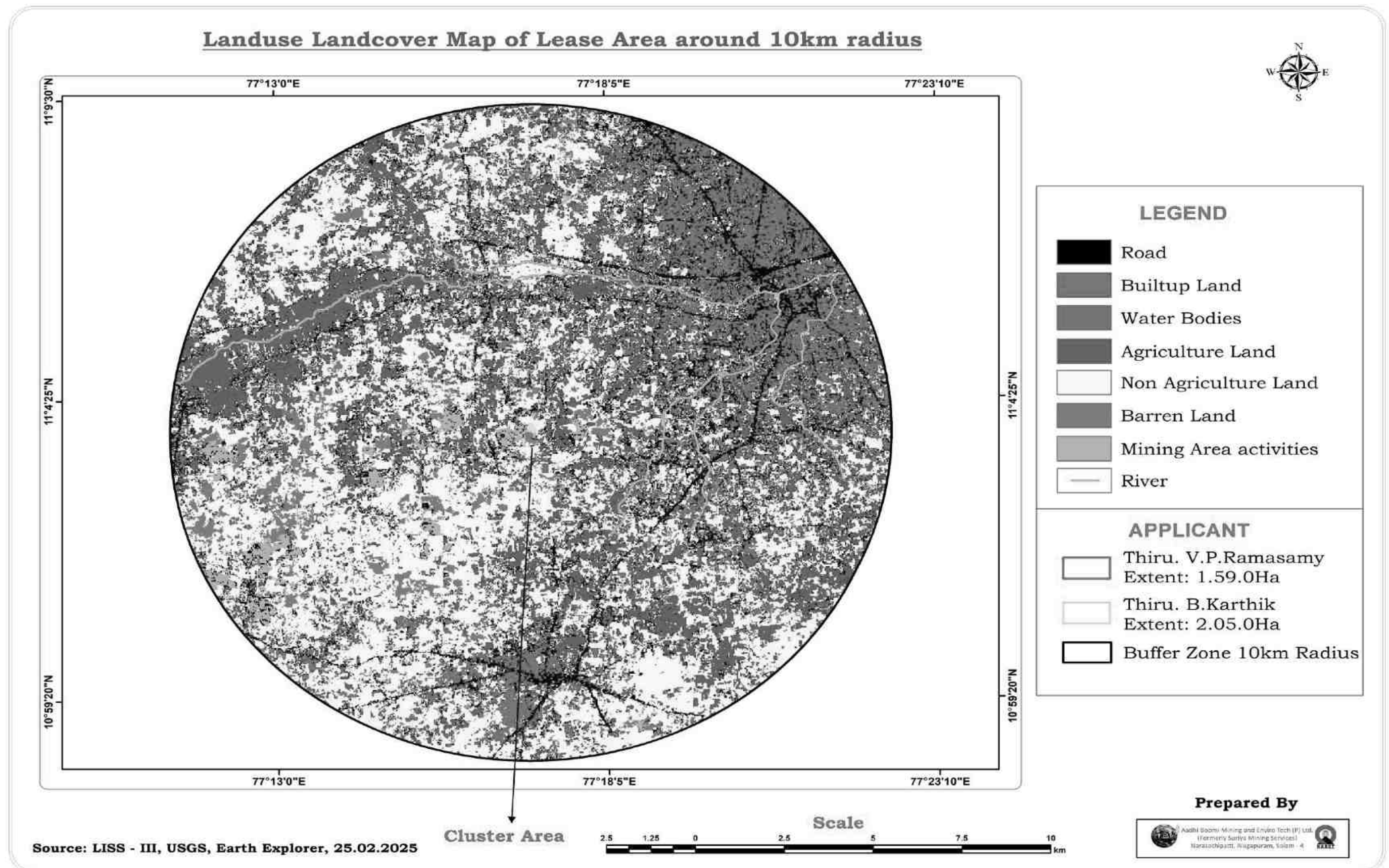


Fig No. 3.29: LANDSAT Image showing Location of Lease area around 10km radius

Table No. 3.31: Computation of existing and proposed land use pattern

S.No	Name	Area	Ha	%
1	Road	319686.31	3196.86	9.82
2	Builtup Land	566803.12	5668.03	17.40
3	Water Bodies	13713.27	137.13	0.42
4	Agriculture Land	708445.38	7084.45	21.75
5	Non-Agriculture Land	1350718.46	13507.18	41.47
6	Barren Land	170879.34	1708.79	5.25
7	Mining Area activities	126688.62	1266.89	3.89
Total		3256934.49	32569.34	100.00

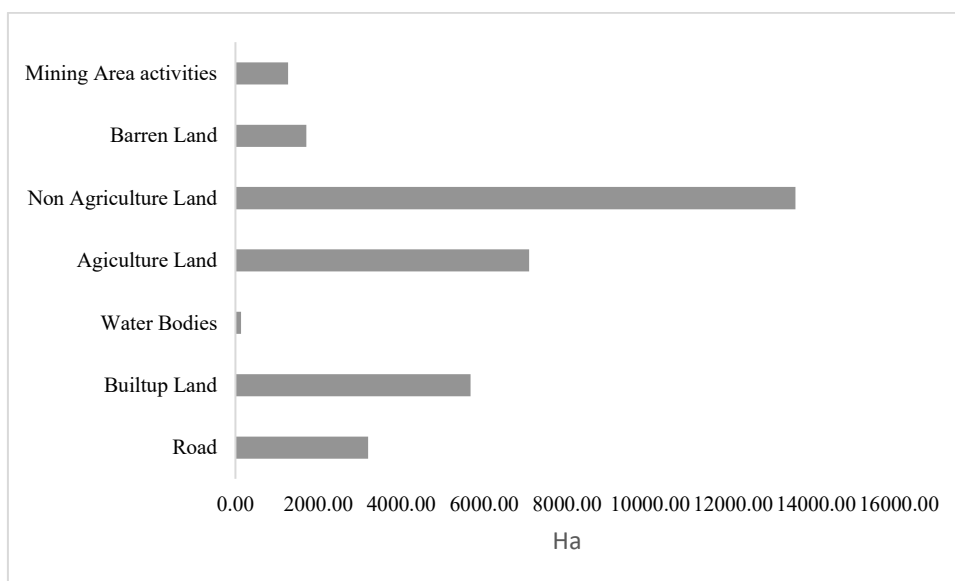


Fig No. 3.30: Land use/Land Cover around 10 km radius

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tiruppur District

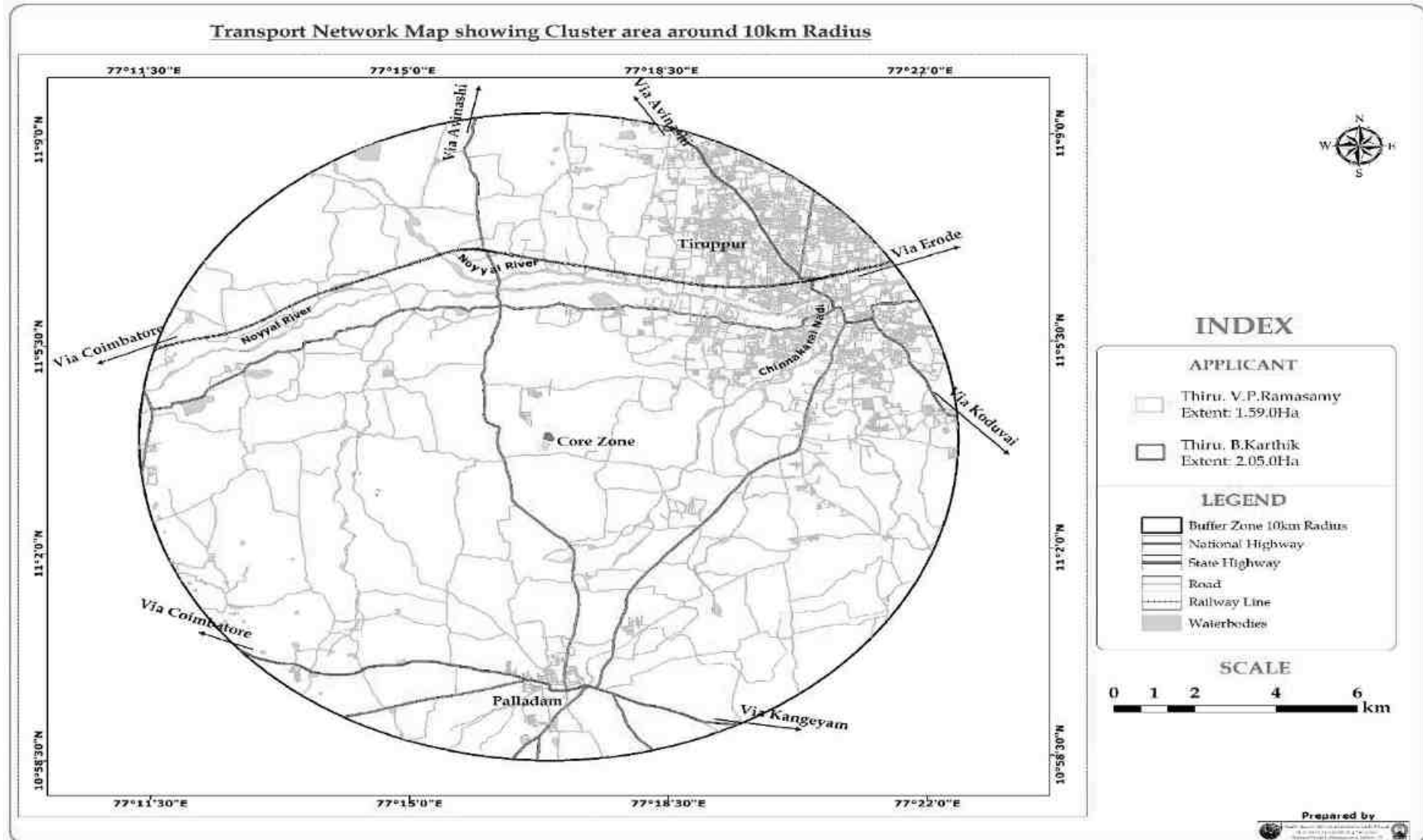


Fig No. 3.31: Toposheet showing Road Accessibility details of 10 Km Radius

3.11.6 Drainage Pattern of the Area

The drainage pattern is dendritic and the flow direction of the streams is southerly direction and controlled by the N-S trending shear zone. The streams originating in the Javadi reserve forest disappear in the colluvium of the bazada zones which is the characteristic feature of the drainage system.

Remote Sensing has the ability of obtaining synoptic view of a large area at one time and very useful in analyzing the drainage morphometry (Rudraiah, 2008). Visual interpretation of satellite imagery in analysis of geological, landforms and land erosion characteristics in conjunction with drainage pattern facilitates effective delineation of distinct features to evaluate the influence of drainage morphometry on landform characteristics and their processes. Horton's law of stream lengths suggests a geometric relationship between the number of stream segments in successive stream orders and landforms (Horton, 1945). The drainage has been delineated using satellite data with the reference of SOI Toposheet of 1:50,000 scale.

3.11.7 Contour

Contour lines are the greatest distinguishing feature of a topographic map. Contour lines are lines drawn on a map connecting points of equal elevation, meaning if you physically followed a contour line, elevation would remain constant. Contour lines show elevation and the shape of the terrain in the study area. The contour map was derived from a SRTM data of the study area. Contour interval at 20m, minimum 2m has very plain with fluvial landforms and general terrain is quite elevated at maximum 294m above. To make topographic maps easier to read, because it's impractical to mark the elevation of every contour line on the map, the index contour lines are the only ones labeled.

3.11.8 Slope

The slope map was derived from a SRTM data of the study area. The slope of the study area was classified into four classes, such as less than 5 percent/degree gentle, low speed ground motion, sheet erosion and soil erosion, a lot of ground movement and erosion. Slope zone 5-10°, 10-20°, 20-30° slightly steep, a lot of ground movement and erosion, especially landslides that area flat and above 30° very steep, intensive denudation processes and ground movements are common.

3.11.9 Soils

Soil Environment soil quality of the study area is one of the important components of the land environment. The composite soil samples were collected from the study area and analysed for different parameters. The locations of the monitoring sites are shown in Table 3.5 and Figure 3.4. The lease area soil characterization in and around 10km radius in four type such as Entisols, Inceptisols, Rockout Crop and Vertisols.

3.11.10 Geology

Tiruppur District is predominantly occupied by hornblende Biotite gneisses of PGC (II) with enclaves of Magnetite Quartzite, Pyroxene Granulite and Charnockite. The area exposes several bands of Pyroxene Granulite which is medium grained, medium to dark grey in colour and stand out prominently in the gneissic country generally parallel to regional foliation. Charnockite is coarse grained, massive, many places it is foliated, grey coloured and greasy and exposed as bouldery outcrops and small knolls. It is well exposed in Central, Western and Southern parts of the Tiruppur District. Hornblende-Biotite gneiss is well foliated, medium to coarse grained, pale grey and exposed as sheets and small knolls. Pink Granite gneiss occurs as thin bands and lensoidal bodies. It is a medium grained rock composed of alternating bands of mafic (mainly of biotite and hornblende) and felsic (Feldspar and Quartz) minerals. It is well recognized in Avinashi area.

3.11.11 Geomorphology

Geomorphologically, the entire region can be classified into areas occupied by erosional landforms and areas occupied by depositional landforms. Geomorphology is a study of earth structures and also depicts the various landforms relating to the ground water potential zones and also structural features. Geomorphology of an area depends upon the structural evolution of geological formation.

Denudational hills (DU) Carved out of more resistant formations standing as a continuous system of hills, characterized by coarse texture and high relief. Kanniwadi (DH1), Thowar R.F (DH2) subjected to differential erosion and other weathering processes occupy 14.3% of the total area.

Pediments valley floor have been regarded as smooth, gently inclined, surfaces that front receding escarpments, are epigene forms shaped by running water, and are well represented in arid and semi-arid lands. In the study area found Western and Northern plain.

Shallow weathered Pediplain (PPS) Gently undulating surface of a buried pediplain with a shallow overburden developed by the planation of high relief areas, later subjected to

the formation of shallow weathered zone. Groundwater occurrence is restricted to the weathered zone.

Moderately weathered pediplain (PPM) gently undulating surface of a buried pediplain having a relatively thick overburden in the Purana and Gondwana formations, occupies about 53.2% of the total area. Owing to its thick overburden, this area is suitable for bore wells and tube wells.

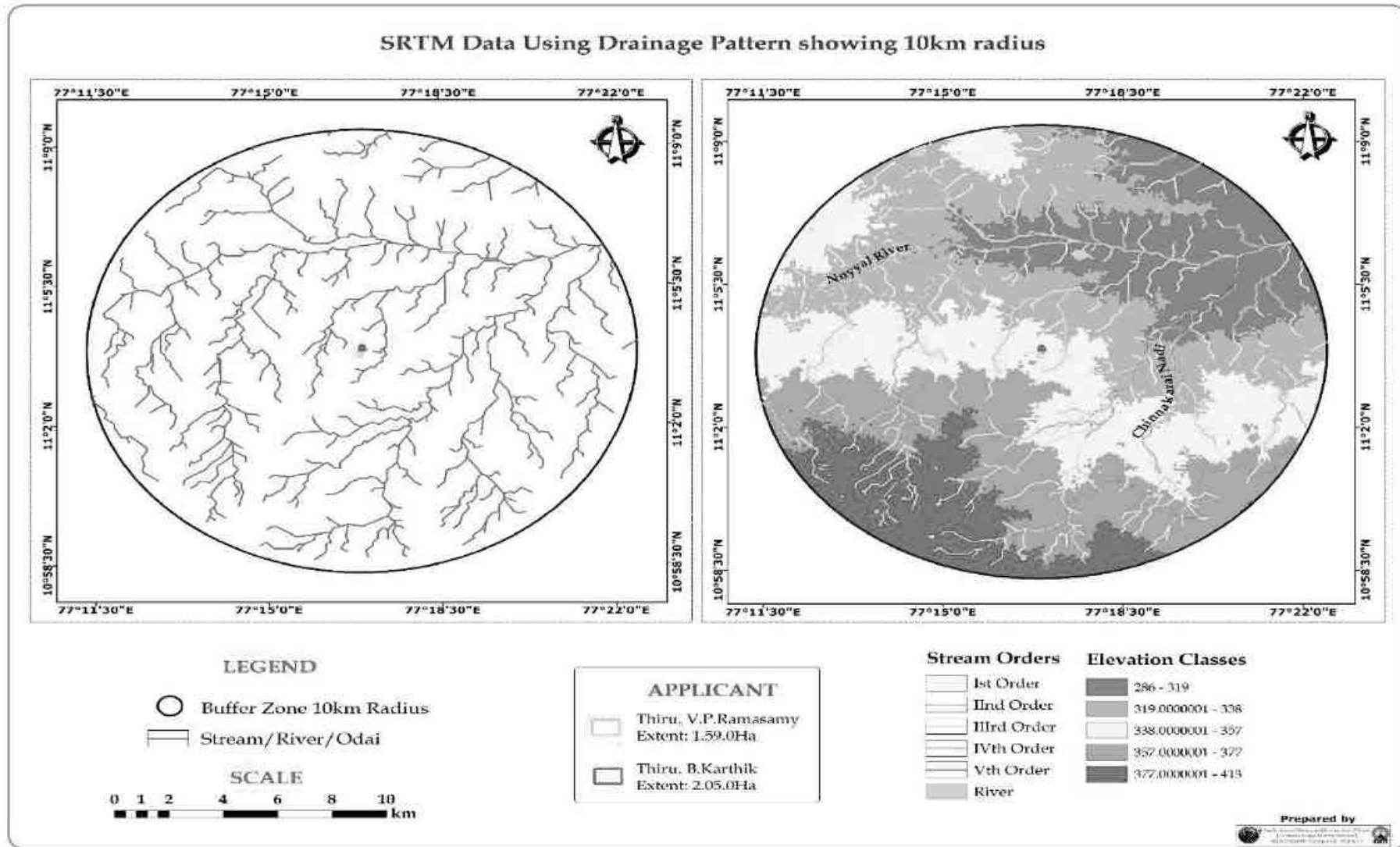


Fig No. 3.32: Image Representing the River/Streams (Drainage) of the study area within 10km radius from the project site

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

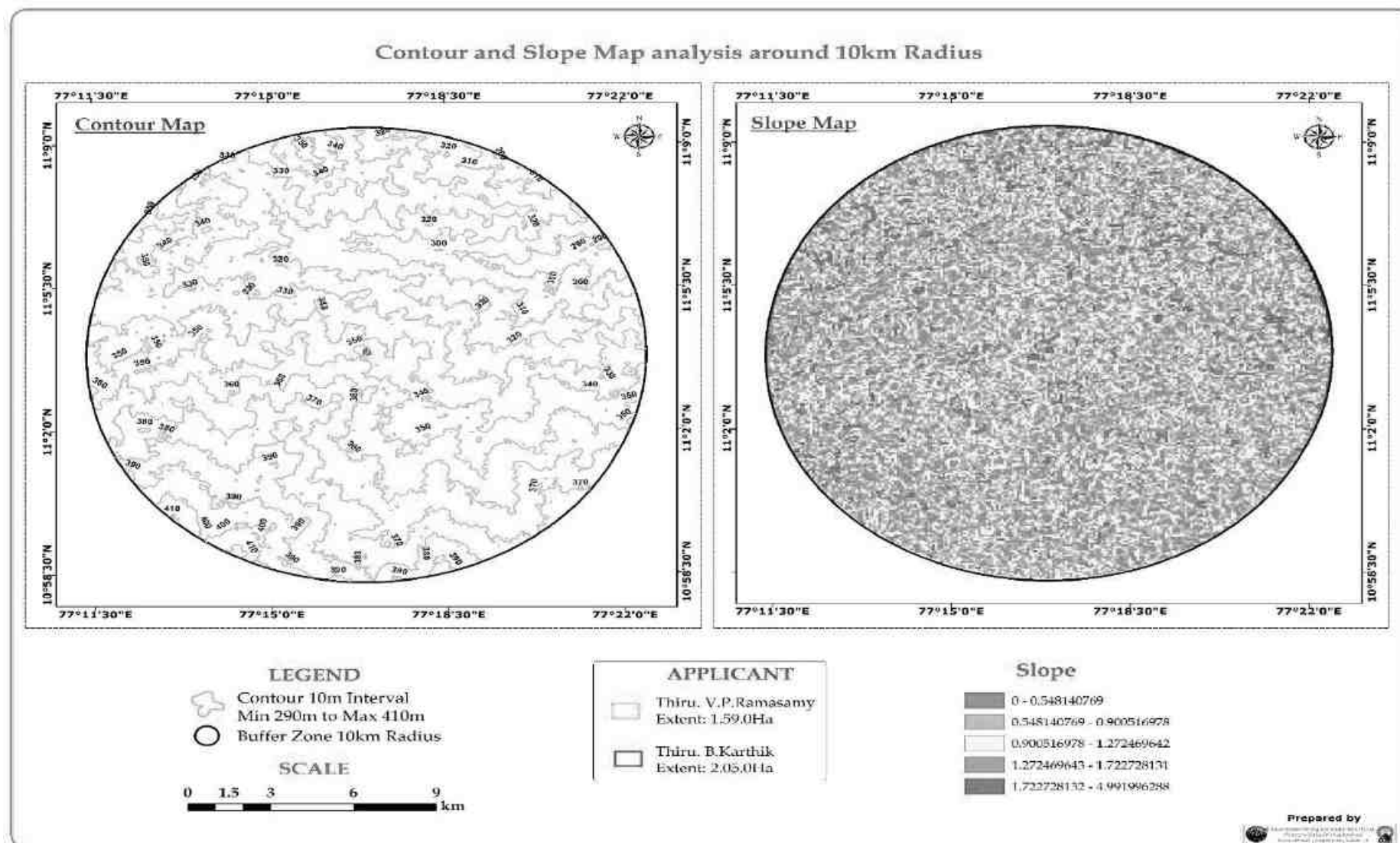


Fig No. 3.33: Image Representing Contour and Slope analysis around 10km radius

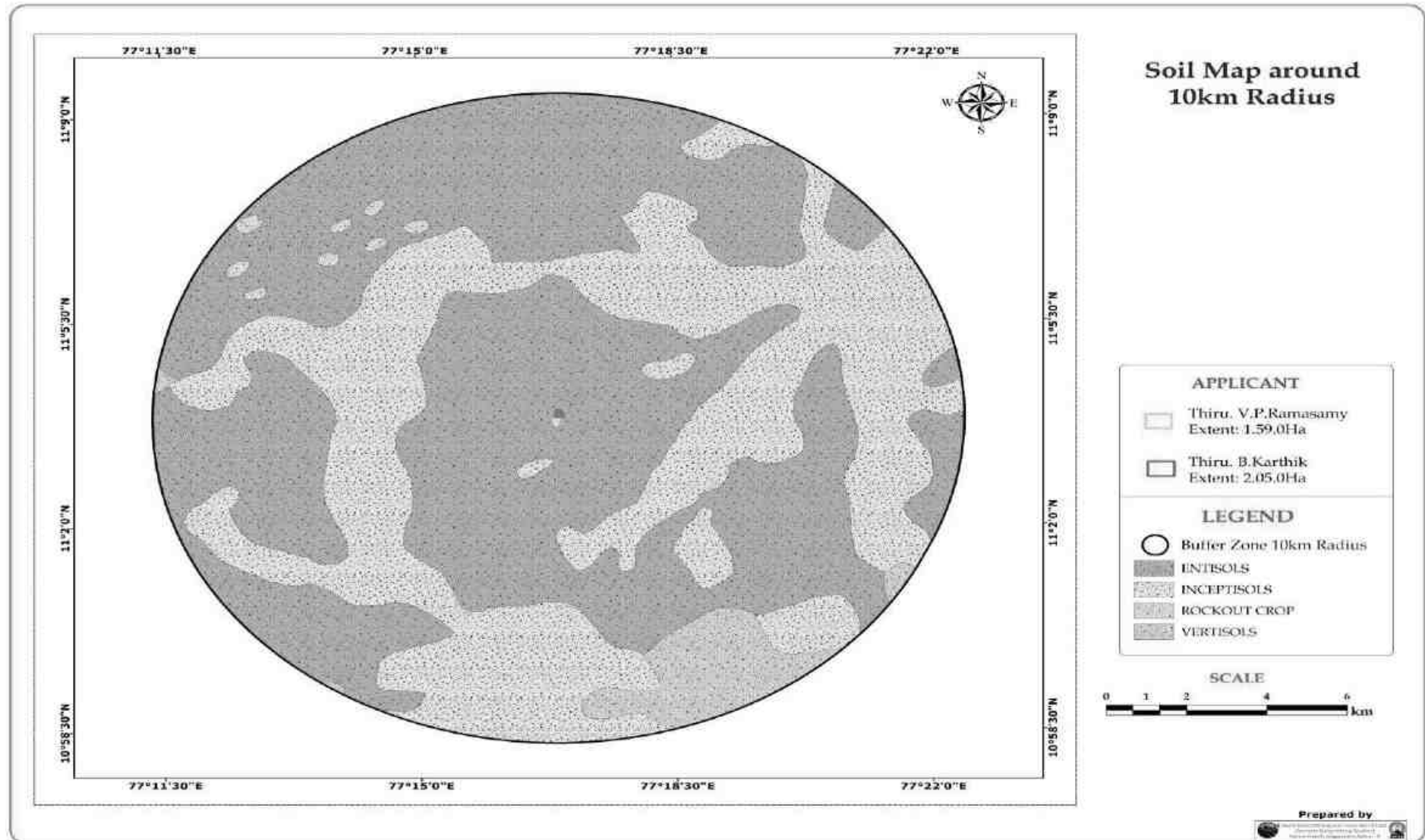


Fig No. 3.34: Image Representing the Soil Characteristics around 10km of the cluster lease area

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

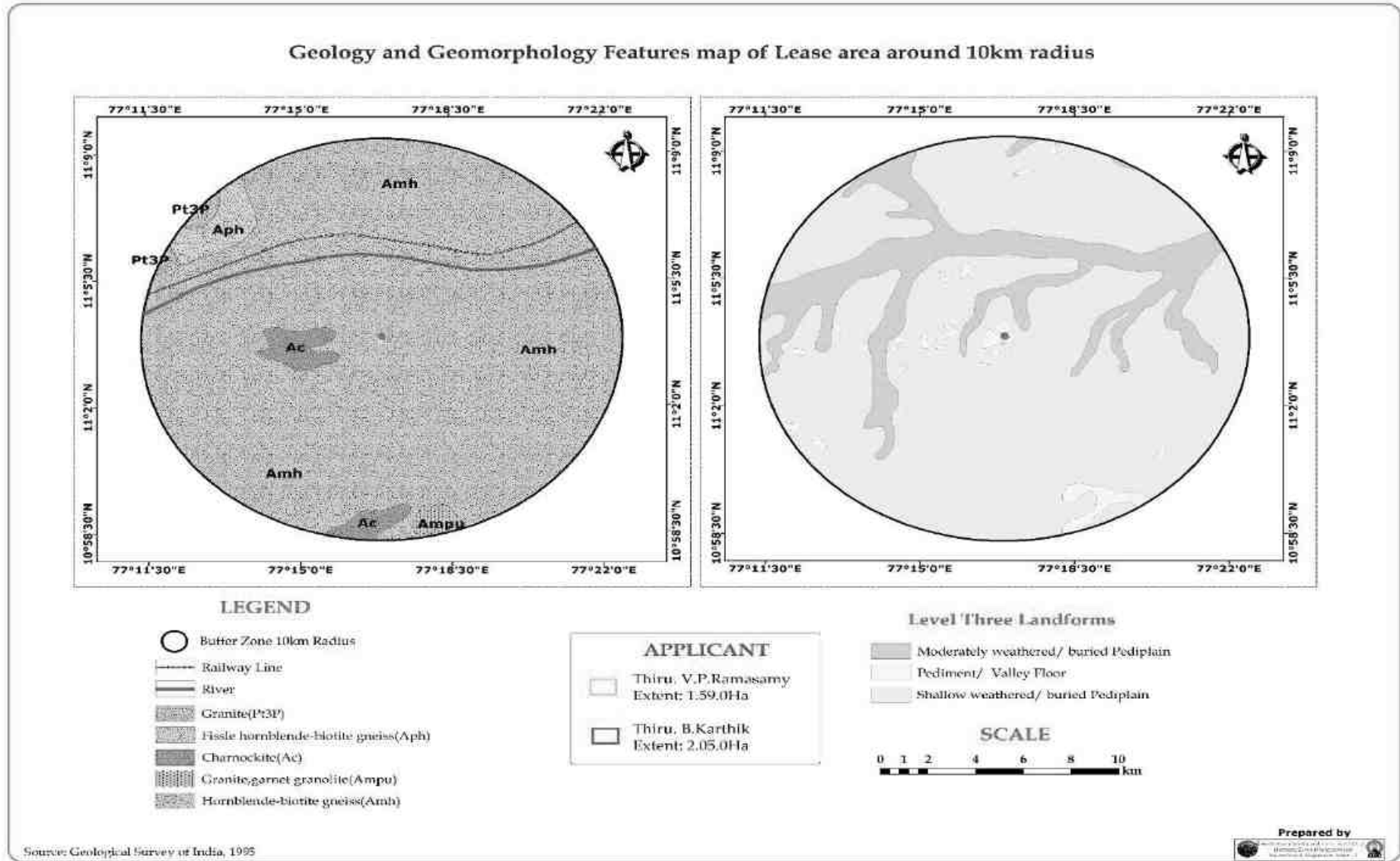


Fig No. 3.35: Image Showing Geology and Geomorphology of the cluster lease area

CHAPTER – 4: ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Open cast mining is carried out by using excavators and dumpers combination. Scientific mining with proper benches with width and slope will be enabled as per MMR, 1961. Jackhammers with compressors will be deployed for drilling. Manual labors will be engaged for jack hammer drilling, sorting of waste and excavator will be used for loading the rough stone and gravel into trucks. Primary blasting will be carried out nonel blasting techniques with minimum vibration or detonating card with electric detonator initiation system. Sizing of materials shall be done by rock breakers or muffle blasting or pop shooting to the required size for better loading into trucks.

All these operations can disturb the environment in various ways, such as removal of mass, change of landscape, flora and fauna of the area, surface drainage, and change in air, water and soil quality. Therefore, it is essential to assess the impacts of mining on different environmental parameters before starting the mining operations, so that abatement measures could be planned in advance for eco-friendly mining in the area. The likely impacts on various environmental aspects and mitigation measures are discussed below.

4.1 Air Environment

The air borne particulate matter is the main air pollutant by opencast mining. The mining operation will be carried out by jack hammer drilling, blasting, excavation, loading and transportation.

4.1.1. Anticipated Impact

The air borne particulate matter generated by handling, operations and transportation of rough stone and gravel are the main air pollutant. The emissions of Sulphur dioxide (SO₂), Oxides of Nitrogen (NO₂) contributed by diesel operated excavation/loading equipment and vehicles plying on haul roads are marginal. Prediction of impacts on air environment has been carried out by considering generation of rejects and overburden per annum of two ordinary stone and gravel quarries of 2.05.0 Ha and 1.59.0 Ha.

4.1.2 Emissions Details

Drilling, Blasting, Loading, unloading and transportation of rough stone and gravel and wind erosion of the exposed area and movement of light vehicles will be the main polluting source in the mining activities that releasing Particulate Matter (PM₁₀ and PM_{2.5}) affecting ambient air of the area. Emission during blasting, loading and unloading was calculated as the area sources. Transportation of the rough stone by trucks operated on the haul road was calculated as the line sources. Details of emission during loading/unloading

and transportation on the haul road, wind erosion of the exposed area and road maintenance were discussed and combined impact was predicted in the worst-case scenario under worst meteorological condition given as follows:

4.1.2.1 Drilling

Drilling is the process of making holes in rough stone to carry out smooth blasting. The drilling is most representative for point source. The rate of emission from the drilling process will be very high when compared to loading, unloading, transporting and blasting. So wet drilling will be proposed for the rough stone and gravel quarry which completely suppresses the dust emitted during drilling process. Also dust extractor will be used over the wet drilling for the effective emission control system.

4.1.2.2. Loading of rough stone (2.05.0 Ha and 1.59.0 Ha)

Chakraborty et al. (2002) was used to calculate emission of particulate matter released into the atmosphere during loading of mineral.

$$E = [(100 - m) (m)^{-1}]^{0.1} [(s) (100 - S)^{-1}]^{0.3} h^{0.2} [(u) (0.2 + 1.05)^{-1}] [(xl) (15.4 + 0.87xl)^{-1}]$$

Table No. 4.1: Source Parameters (Loading of ordinary stone)

S. No	Description	Symbol	Quantity
1	Moisture content (%)	m	0.9 %
2	Silt content (%)	s	0.1(approx)
3	Wind speed (m s ⁻¹)	u	2.4
4	Drop height (m)	h	1m above the tipper body
5	Size of loader (m ³)	l	1.53
6	Frequency of loading(no.h ⁻¹)	x	37 times
7	Area of Source (m ²)	a	21740 (11200 + 10540)
8	Controlled emission rate (g s ⁻¹)	CE	0.0868

Totally 4 tippers and 3 hydraulic excavators will be proposed for proposed ordinary stone quarry. The maximum rate of production per hour is estimated at 22 m³. The loading capacity of excavator is 1.53 m³.

x = frequency of loading (no. h⁻¹) = 57.2/1.53 = 37 times.

4.1.2.3 Loading of Overburden (Gravel) (2.05.0 Ha)

Chakraborty et al. (2002) was used to calculate emission of particulate matter released into the atmosphere during loading of gravel.

$$E = [0.018\{(100-m) (m)^{-1}\}^{1.4}\{s (100-s)^{-1}\}^{1.4}(uhxl)^{0.1}]$$

Table No. 4.2: Source Parameters (Loading of Gravel)

S. No	Description	Symbol	Quantity
1	Moisture content (%)	m	30
2	Silt content (%)	s	12
3	Wind speed (m)	u	2.4
4	Drop height (m)	h	1m above the tipper body
5	Size of loader (m ³)	l	1.53
6	Frequency of unloading (no.h ⁻¹)	x	3 times (maximum)
7	Area of Source (m ²)	a	11200
8	Controlled emission rate (g s ⁻¹)	CE	0.0045

The maximum rate of production of gravel per hour is estimated at 3.12 m³. The loading capacity of excavator is 1.53 m³.

$x = \text{frequency of loading (no. h}^{-1}\text{)} = 5/1.53 = 3 \text{ times}$

Emission of PM₁₀ during rough stone and gravel loading was calculated and found to be 0.086 g/s and 0.0045 g/s respectively based on moisture content 0.9 and 30% respectively and average wind speed was 2.4 m/s as observed with site data.

4.1.2.4 Haul Road (2.05.0 Ha and 1.59.0 Ha)

Chaulya (2006) was used to calculate emission of particulate matter released into the atmosphere during transportation of ordinary stone and gravel by truck operated per hour on haul road.

$$E = [\{ (100-m) (m)^{-1} \}^{0.35} \{ (us) (100-s)^{-1} \}^{0.7} \{ 0.5 + 0.1(f + 0.42v) \}] 10^{-3}$$

Table No. 4.3: Source Parameters (During Vehicle Movement on Haul Road)

S. No	Description	Symbol	Quantity
1	Moisture content (%)	m	70
2	Silt content (%)	s	12
3	Wind speed (ms ⁻¹)	u	2.4
4	Frequency of transporting (no. h ⁻¹)	f	10 times (maximum)
5	Average vehicle speed(ms ⁻¹)	v	4.1
6	Haul road area (m ²)	a	200
7	Controlled emission rate (g s ⁻¹)	CE	0.0017

Emission of PM₁₀ due to transportation of rough stone and gravel on haul road was 0.0017 g/s based on assumption that silt content spread on road surface was 12% and average

wind speed of 2.4 m/s as observed with site data. Based on the above consideration there was low emission of PM₁₀ during transportation of rough stone and gravel.

4.1.2.5 Blasting (2.05.0 Ha and 1.59.0 Ha)

In another scenario when controlled blasting is carried out at the mine site and all the other activities are brought to halt. Significant amount of PM₁₀ is released during blasting at mining site for very short-term.

$$E = E_f \times Q$$

Table No. 4.4: Source Parameters (During Blasting)

S. No	Description	Symbol	Quantity
1	Uncontrolled Particulate matter emissions rate in pounds per year	UE	54
2	Emission factor in unit of pounds of particulate per ton shifted by blasting	E _f	TSP E _f = 0.0001 pounds/ton PM ₁₀ E _f = 0.0008 pounds/ton PM _{2.5} E _f = 0.0008 pounds/ton
3	Amount of material of all types shifted by blasting during the year in tons	Q	(89866+49838) = 139704
4	Control efficiency (%)	c	30
5	Controlled Particulate matter emissions rate in pounds per year	CE	111

(Reference: Mojave Desert Air Quality Management District, 1403 Park Avenue, Victoria, CA 92392 -2310).

Loading of rough stone & gravel, overburden, movement of trucks on haul roads and open pit source were considered as combined action. So, the emission during loading, and transportation were taken combined and US EPA based Dispersion AERMOD model was used for prediction of impact with 1-h meteorological data of the study period for the assessment of incremental GLC. Then blasting was considered as separate action and US EPA based Dispersion AERMOD model was used for prediction of impact separately.

4.1.2.6 Summary of calculated Emission Rates

Table No. 4.5: Emissions Rates of PM₁₀

Source type	Controlled Emission Rate (g/s/m ²)
Rough stone loading	2.7 x 10 ⁻⁶
Overburden Loading	1.3 x 10 ⁻⁷
Haul Road	4.2 x 10 ⁻⁶
Blasting	1.8 x 10 ⁻⁷

Table No. 4.6: Emissions Rates of SO₂

Source type	Average Emission rate for HDDV as per EPA	Emission rate (Proposed Project)
Tippers	0.012 g/mile	7.5×10^{-8} g/s/m ²
Excavators	0.012 g/mile	4.2×10^{-7} g/s/m ²
Total Emission Rate		4.2×10^{-7} g/s/m ²

Table No. 4.7: Emissions Rates of NO₂

Source type	Average Emission rate for HDDV as per EPA	Emission rate (Proposed Project)
Tippers	0.725 g/mile	4.5×10^{-6} g/s/m ²
Excavators	0.725 g/mile	2.3×10^{-5} g/s/m ²
Total Emission Rate		2.3×10^{-5} g/s/m ²

4.1.3 Frame work of Computation & Model details

By using the above-mentioned inputs, ground level concentrations due to the mining activities have been estimated to know the incremental rise in ambient air quality and impact in the study area. The effect of air pollutants upon receptors are influenced by concentration of pollutants and their dispersion in the atmosphere. Air quality modeling is an important tool for prediction of dispersion of pollutants with GLC and it is used to find the air pollution control activities which controls the emission rates of different activities.

4.1.3.1 Model Input data

The air pollution modeling carried out represents the normal operating scenarios. As the proposed activity is mining the major source of pollution is particulate matter and gaseous emission. The following data has required as input data for dispersion pattern.

- 1) Baseline data of PM₁₀, SO₂ and NO₂ is needed along with meteorological data. Meteorological data preprocessor (AERMET) needs meteorological data which calculates atmospheric turbulence characteristics, mixing heights, surface heat flux for finding the atmospheric dispersion. Site specific data recorded during post monsoon season (1st March 2022 to 31st May 2022) at project site for executing modeling studies.
- 2) The emission rates of PM₁₀, SO₂ and NO₂ from the various sources was taken.
- 3) Location of the project.

4.1.3.2 Model Results

The Air Quality Impact Prediction has been done by using AERMOD of USEPA". The main sources of air pollution with regard to the proposed project for the purpose of estimation of increase in PM₁₀, SO₂ and NO₂ are identified due to –

1. Scenario 1 – PM₁₀

- (i) Loading/unloading of ordinary stone and gravel rejects and overburden
- (ii) Transportation of ordinary stone and gravel rejects, overburden by trucks on the Haul roads from mining benches.

2. Scenario 2 - PM₁₀

- (i) Due to blasting

3. Scenario 3 – SO₂ and NO₂

- i. From Operation of Excavator and movement of transporting vehicle

Scenario1:

Table No. 4.8: Total predicted GLC of PM₁₀ in core and buffer zone due to combined action of loading, unloading and Transportation of rough stone & gravel by trucks on the haul road, open pit source of the mining lease area.

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	47	23.99	70.99
Receptor 01	AQ2 -1100m - NE	47	1.42	48.42
Receptor 02	AQ3- 500 m- SE	47	2.64	49.64
Receptor 03	AQ4- 280 m -NW	47	1.97	48.97
National Ambient Air Quality Standards (NAAQS)				100

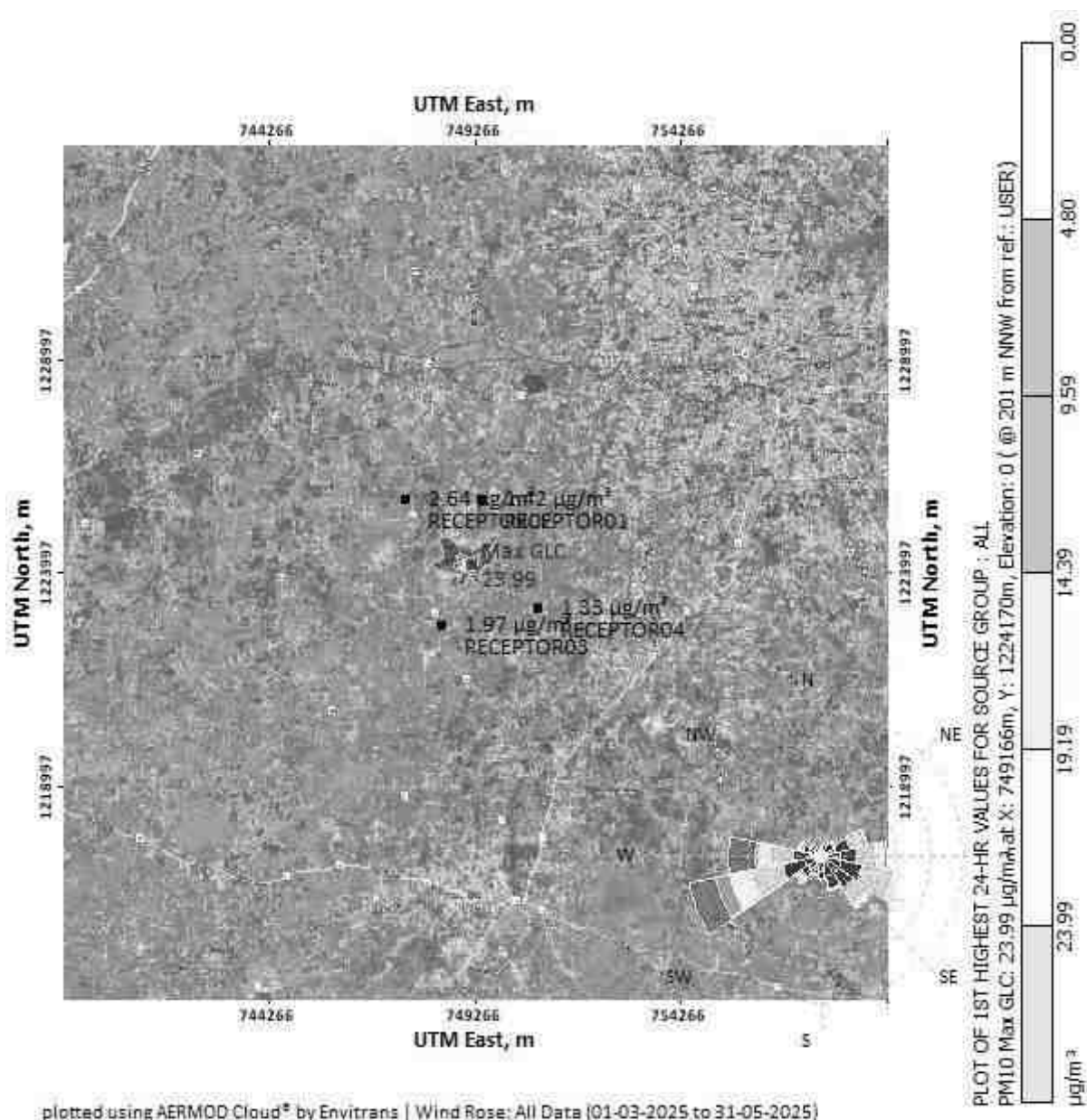


Fig No.4.1: Isopleth indicating Incremental value of PM₁₀ due to combined action of loading, unloading, transportation of rough stone and gravel on haul road

Scenario 2:

Table No. 4.9: Total predicted GLC of PM₁₀ in core and buffer zone due to blasting activity in the mining lease area.

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	47	33.42	80.42
Receptor 01	AQ2-1100m - NE	47	1.89	48.89
Receptor 02	AQ3- 500 m- SE	47	3.13	50.13
Receptor 03	AQ4- 280 m -NW	47	1.78	48.78
National Ambient Air Quality Standards (NAAQS)				100

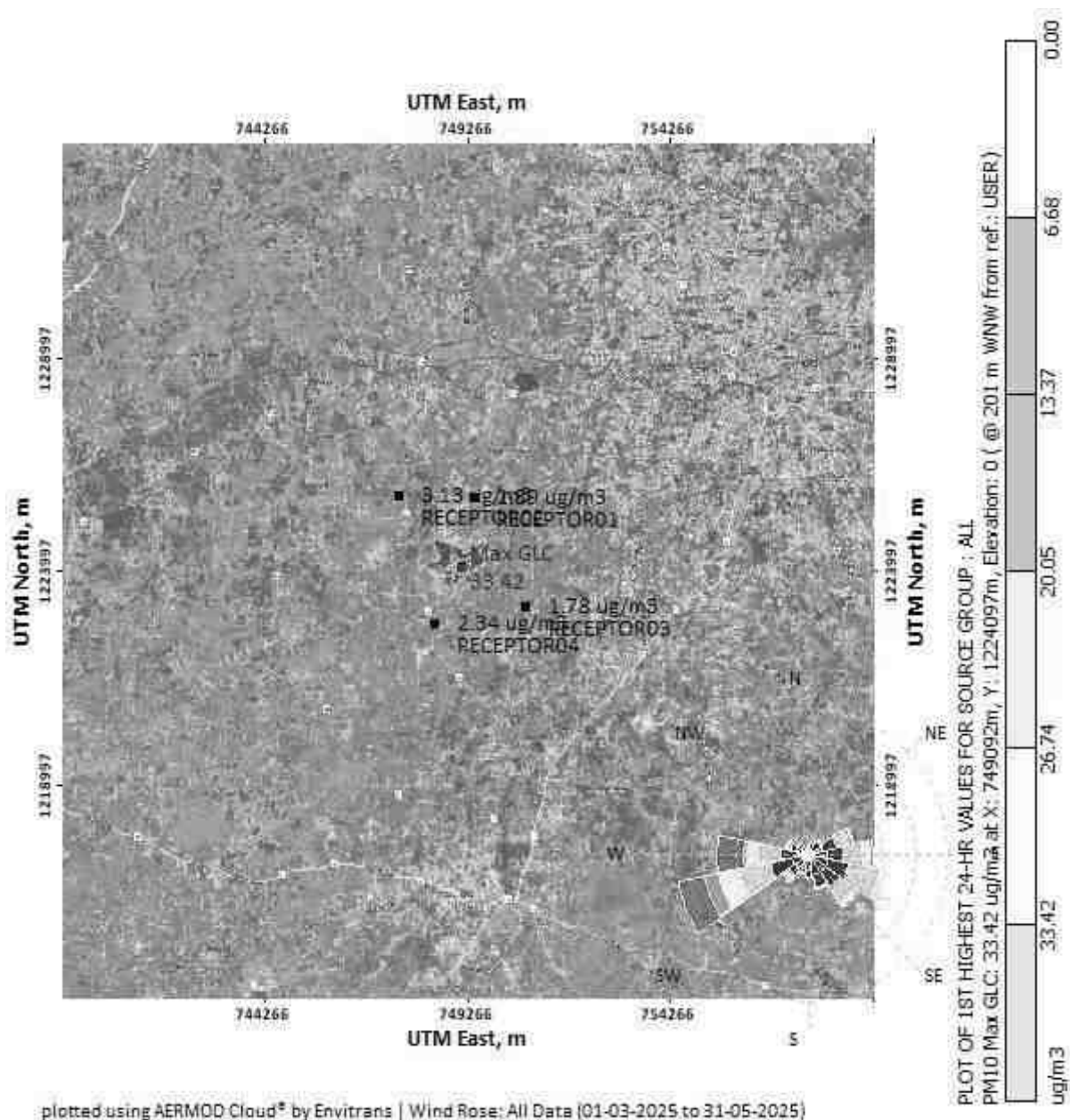


Fig No. 4.2: Chart indicating Incremental value of PM₁₀ due to blasting action.

Scenario 3:

Table No. 4.10: Impact of SO₂ due to Operation of Excavator and Movement of Vehicle in the mining lease area

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	15	0	15
National Ambient Air Quality Standards (NAAQS)				80

Table No. 4.11: Impact of NO₂ due to Operation of Excavator and Movement of Vehicle in the mining lease area

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	22	0	22
National Ambient Air Quality Standards (NAAQS)				80

Total predicted 24-h maximum GLC of PM₁₀ at project site for scenario 1 i.e. loading-unloading, transportation and scenario 2 i.e. Blasting was 80.42 $\mu\text{g}/\text{m}^3$ and 70.99 $\mu\text{g}/\text{m}^3$ respectively after superposition of base-line value 47 $\mu\text{g}/\text{m}^3$ over the incremental GLC 33.42 $\mu\text{g}/\text{m}^3$ and 23.99 $\mu\text{g}/\text{m}^3$ respectively due to combined impact of loading, unloading, open pit and transportation over the haul road and due to blasting. Therefore, the total predicted GLC of SO₂ and NO₂ will be 15 $\mu\text{g}/\text{m}^3$ and 22 $\mu\text{g}/\text{m}^3$ respectively. Maximum Impact of PM₁₀, SO₂ and NO₂ was observed close to the source within the lease area due to moderate wind speeds.

4.1.3.4 Combined Impact on Air Environment due to proposed quarry and adjacent quarry within 500m radius.

As per the cluster letter issued by Deputy Director, Department of Geology and Mining, Tirupur vide Rc.No.58/Mines/2023, dated 13.08.2024 for Thiru. B. Karthik (2.05.0 Ha) and vide Rc.No.712/Mines/2021 dated 13.08.2024 for Thiru. V.P. Ramasamy (1.59.0 Ha) the lease area of above said 6 applicants comes in cluster of 500m radius. The total area of cluster is 11.53.0 Ha. The predicted incremental GLC of PM₁₀, SO₂ and NO₂ due to the proposed mining activity is given in below table.

Table No. 4.12: Incremental GLC of PM₁₀, PM_{2.5}, SO₂ and NO₂ due to the proposed mining activity

S. No	Air Pollutants	Incremental GLC due to proposed quarry (Controlled) $\mu\text{g}/\text{m}^3$
1.	PM ₁₀	23.99
2.	SO _x	0
3.	NO _x	0

Assume that emission rate from the various mining activity in adjacent 6 quarries are same as the proposed quarries. So, the incremental GLC will also be same as proposed quarry. Therefore, the when the proposed quarry and 6 adjacent quarries are working together, the incremental GLC and total predicted GLC are given below table.

Table No.4.13: Total predicted GLC of PM₁₀, PM_{2.5}, SO₂ and NO₂ due to the combined activity in the cluster

S. No	Air Pollutants	Baseline Value	Incremental GLC due to proposed quarry and two quarries $\mu\text{g}/\text{m}^3$	Total Predicted GLC due to proposed quarry and two adjacent quarry $\mu\text{g}/\text{m}^3$
1.	PM ₁₀	48	57.41	104.41
2.	SO _x	15	0	15
3.	NO _x	22	0	22

From the above table it is found that, when the 6 quarries are working together the Total predicted GLC of SO₂ and NO₂ (Controlled) due to mining activities was found within the NAAQS in the cluster area. PM₁₀ is slightly beyond the limits which shall be controlled by installation of more number of water sprinklers and greenbelt development in the lease area.

4.1.4. Air Quality Index

An air quality index is defined as an overall scheme that transforms the weighed values of individual air pollution related parameters (for example, pollutant concentrations) into a single number or set of numbers (Ott, 1978). Air quality standards are the basic foundation that provides a legal framework for air pollution control. The basis of development of standards is to provide a rational for protecting public health from adverse effects of air pollutants, to eliminate or reduce exposure to hazardous air pollutants, and to guide national/ local authorities for pollution control decisions.

The objective of an AQI is to quickly disseminate air quality information (almost in real-time) that entails the system to account for pollutants which have short-term impacts. To

present status of the air quality and its effects on human health, the following description categories have been adopted for IND-AQI.

AQI breakpoints for eight pollutant parameters considered for AQI and these are summarized below in Table with color scheme to represent the AQI bands.

Table No. 4.14: AQI and its associated Health Impacts

AQI	Associated Health Impacts
Good	Minimal Impact
Satisfactory	May cause minor breathing discomfort to sensitive people
Moderate	May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease, children and older adults
Poor	May cause breathing discomfort to the people on prolonged exposure and discomfort to people with heart disease with short exposure
Very Poor	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases
Severe	May cause respiratory effects even on healthy people and serious health impacts on people with lung/heart diseases. The health impacts may be experienced even during light physical activity

Table No. 4.15: Proposed Breakpoints for AQI Scale 0-500
(Units: $\mu\text{g}/\text{m}^3$ unless mentioned otherwise)

AQI Category (Range)	PM ₁₀ 24-hr	PM _{2.5} 24-hr	NO ₂ 24-hr	O ₃ 8-hr	CO 8-hr (mg/m ³)	SO ₂ 24-hr	NH ₃ 24-hr	Pb 24-hr
Good (0-50)	0-50	0-30	0-40	0-50	0-1.0	0-40	0-200	0.0-5
Satisfactory (51-100)	51-100	31-60	41-80	51-100	1.1-2.0	41-80	201-400	0.5-1.0
Moderately polluted (101-200)	101-250	61-90	81-180	101-168	2.1-10	81-380	401-800	1.1-2.0
Poor (201-300)	251-350	91-120	181-280	169-208	10-17	381-800	801-1200	2.1-3.0
Very poor (301-400)	351-430	121-230	281-400	209-748*	17-34	801-1600	1200-1800	3.1-3.5
Severe (401-500)	430+	230+	400+	748+*	34+	1600+	1800+	3.5+

*One hourly monitoring (for mathematical calculation only)

4.1.4.1. Interpretation of Air quality using IND-AQI:

Table No. 4.16: Computation of AQI with Baseline data

Air pollutants	Total Predicted GLC due to proposed quarry $\mu\text{g}/\text{m}^3$	AQI	Associated Health Impacts
PM ₁₀	57.41	Satisfactory (51-100)	May cause minor breathing discomfort to sensitive people
SO ₂	15	Good (0-50)	Minimal Impact
NO ₂	22	Good (0-50)	Minimal Impact

The above table shows the AQI quality due to total predicted GLC of quarry in core area. PM_{10} is between 51-100 of AQI which is satisfactory and may cause minor breathing discomfort to sensitive people. SO_2 and NO_2 are between 0-40 of AQI which is good and may cause Minimal Impact. When all the quarries in the cluster area are working together the incremental GLC will be high and it may cross the prescribed limits by NAAQS. To overcome such situation, cluster committee should be formed and adopt the environmental management plan effectively as per EIA report.

4.1.5. Mitigation Measures

The pollutants from nearby ongoing mining activities, residential and commercial activities are the primary sources of air pollution. However, in the study area adequate control measures will be implemented in future at the time of mining operation. Mitigate measures suggested for air pollution controls are based on the baseline ambient air quality of the area. From the point of view of maintenance of an acceptable ambient air quality in the region, it is desirable that air quality is monitored on a regular basis to check compliance of standards as prescribed by regulatory authorities. However, to further minimize the pollutant concentration especially PM_{10} , the following control measure should be adopted by the project proponent.

- ❖ Regular water sprinkling on haul roads, blasted heaps, service roads and overburden dumps at regular intervals will help in reducing considerable dust pollution
- ❖ 1.0 KLD of water will be used for dust suppression of two quarries.
- ❖ Use of Sharp drill bits for drilling holes and charging the holes by using optimum charge and using time delay detonator.
- ❖ Conventional low explosives are being used.
- ❖ The scale of blasting is however very less considering the rate of production.
- ❖ Covering of material when transport through trucks/dumper
- ❖ The drilling and blasting are being carried out as per the proposals laid down in the approved plan.
- ❖ Proposed to follow up muffle blasting so as to prevent fly rock fragments
- ❖ Avoiding blasting during high windy periods and temperature inversion periods
- ❖ Delay blasting under unfavorable wind and atmospheric conditions
- ❖ Use of appropriate explosives for blasting and avoiding overcharging of blast holes
- ❖ The vehicles and machinery will be kept in well maintained condition so that emissions will minimize
- ❖ Provision of green belt all along the periphery of the lease area for control of dust

- ❖ Information on wind direction and meteorology will be considered while planning, so that pollutants, which cannot be fully suppressed by engineering technique, will be prevented from reaching the residential areas
- ❖ Cabins for shovel and dumpers and dust masks to workmen will be provided
- ❖ The dust respirators should be provided to all workers working in dusty environment
- ❖ Regular health check-up of workers and nearby villagers in the impacted area should be carried out and also regular occupational health assessment of employees should be carried out as per the Factories Act
- ❖ Ambient Air Quality Monitoring will be conducted on regular basis to assess the quality of ambient air.

As discussed above under each activity, there will be increase in terms of dust load and gaseous emissions. However, it can be stated that these incremental contributions will remain within the prescribed limits/norms. Further, the mitigation measures will further bring down these concentrations making the mining activities more eco-friendly.

4.2 Carbon emission and carbon sinks due to proposed mining activity

4.2.1 Carbon emissions

There are both natural and human sources of carbon dioxide emissions. Natural sources include decomposition, ocean release and respiration. Human sources come from industrial activities such as cement production, deforestation as well as the burning of fossil fuels like coal, oil and natural gas.

4.2.1.1 Carbon emission due to natural activity in project site and carbon sinks

a) Carbon from decomposition

As the proposed mining activity is carried out in existing mining pit, there will be no need of cutting of any trees or plants. So, the process of decomposition will not take place which emits carbon dioxide into the atmosphere.

b) Carbon from respiration

The carbon dioxide we exhale does not contribute to global warming for the simple reason. Since all the carbon dioxide we exhale captured by plants during photosynthesis, we are not disturbing the carbon dioxide content of the atmosphere by breathing.

4.2.1.2 Carbon emission due to human activity in project site and carbon sinks

a) Carbon from Vehicles

The proposed method of mining is semi mechanized which involves activity of excavator and tippers. The burning of fossil fuels used for the tippers and excavators' releases carbon monoxide, carbon dioxide and nitrogen oxide into the atmosphere. When those gases are emitted into the atmosphere it affects the amount of greenhouse gases, which are linked to

climate change and global warming. In average based on the production per day, two tippers can travel 21 miles within the lease area for transporting the rough stone. Plants not only absorb carbon dioxide but also absorb other gases and remove the impurities from it.

Table No. 4.17: Emission of carbon monoxide carbon dioxide from vehicle

Source type	Average Emission rate of CO for HDDV as per EPA	Emission rate of CO
Tippers	2.311 g/mile	0.05 kg/day
Excavators	2.311 g/mile	0.23 kg day
Total Emission Rate		0.28 kg/day

Remediation

The project proponent proposed to plant nearly 500 numbers of one-year taller tree sapling along the safety zone of mining lease area to overcome the emission of carbon gases and other gases by vehicles in the quarry. Moreover, they will plant trees along the village road and government schools under CER and CSR schemes. BS –VI model of tippers are proposed to use in the quarry for the controlled emission of gases.

4.3 Soil Carbon stock

Soil carbon sequestration is a process in which CO₂ is removed from the atmosphere and stored in the soil carbon pool. This process is primarily mediated by plants through photosynthesis, with carbon stored in the form of SOC. Carbon is the main component of soil organic matter and helps give soil its water-retention capacity, its structure, and its fertility.

The dense carbon stocks below and above the soil are mostly seen in dense forest where more process of photosynthesis takes place and tons of leaves, branches get decomposed. The agricultural activity in field can degrade and deplete the SOC levels during the process of tillage in paddy, sugarcane turmeric crop field.

The No Reserve Forest and Wildlife Sanctuaries within 10km Radius and this area do not fall under Wildlife Conservation Act.,

As it is mining project which is carried out within lease area it will not affect any soil carbon stock in the nearest reserve forest.

4.4 Noise Environment

Noise survey has been conducted in the study area to assess the background noise levels in different zones. The anticipated noise level due to proposed mining activity has been assessed considering baseline noise level, distance involving mining site to nearest village

and noise generated due to proposed mining activity. Following are the sources of noise in the proposed open cast ordinary stone gravel quarry project.

- Drilling;
- Blasting;
- Vehicular Movement.

The drilling operation is being carried out by Jack hammer operated by compressor mounted with tractor. The noise levels in the working environment are being and will be maintained within the standards prescribed by Occupational Safety and Health Administration (OSHA). These standards were established with the emphasis on reducing the hearing loss. The permissible limits, as laid down by CPCB, are presented in below in table 4.18.

Noise generated from blasting is always instantaneous. The noise produced by blasting is for extremely short duration of around 0.5 seconds, though with a high intensity. Blasting time is generally fixed at lunch interval or after the working shift taking. Noise of blast is site specific and depends on type, quantity of explosives, dimensions of drill holes, degree of compaction of explosive in the hole and rock. Blasting, in addition to easing the hard strata, generates ground vibrations and instantaneous noise. The noise levels in many situations will be above Threshold Limit Value. Exposure to noise levels, above Threshold Limit Value may have detrimental effect on the workers' health. The adverse effects of high noise levels on exposed workers may result in Annoyance, Fatigue, Temporary shift of threshold limit of hearing, Permanent loss of hearing and Hypertension and high blood cholesterol, etc.

Noise pollution poses a major health risk to the mine workers. When noise in the form of waves impinges the eardrum, it begins to vibrate, stimulating other delicate tissues and organs in the ear. If the magnitude of noise exceeds the tolerance limits, it is manifested in the form of discomfort leading to annoyance and in extreme cases to loss of hearing. Detrimental effects of noise pollution are not only related to sound pressure level and frequency, but also on the total duration of exposure and the age of the person.

Table No. 4.18: Permissible Exposures in Cases of Continuous Noise (CPCB)

Sound Level (dB A)	Continuous Duration (Hours)
85	8
88	4
91	2
94	1
97	0.5

100	0.25

Table No. 4.19: Noise Exposure Levels & Its Effects

Noise Levels dB(A)	Exposure Time	Effects
85	Continuous	Safe
85-90	Continuous	Annoyance and Irritation
90-100	Short term	Temporary shift in hearing threshold, generally with complete recovery
Above 100	Continuous	Permanent loss of hearing
100-110	Several years	Permanent deafness
110-120	Few months	Permanent deafness
120	Short term	Extreme discomfort
140	Short term	Discomfort with actual pain
150 and above	Single exposure	Mechanical damage to the ear

Source: Hand Book of EIA, Rao & Wooten

4.4.1 Anticipated Impacts due to Noise in Cluster Core Zone

During the operation phase of mining, movement of HEMM also add some noise level whose impact is being minimized by continuous maintenance of vehicle. The likely generations of noise levels due to operation of HEMM are given in table 4.20.

Table No. 4.20: Expected Noise Levels

Equipment's	Expected Noise Levels dB(A)
Mining	
Drilling	90-100
Shovel	75-80
Tipper	75-80
Dozers	85-90
Crusher	85-95

The mine site where heavy earth moving machinery will operate, noise level will be within the stipulated 90 dB (A) norm of DGMS. The protection measures for the operators of this equipment will reduce the impact/exposure.

Predicted noise levels due to mining operations using Mathematical Equations

$L_2 = L_1 - 20 \log_{10} (R_2/R_1)$ Where L_1 dB (A) = Noise level at a distance R_1 (m)

L_2 dB (A) = Noise level at a distance R_2 (m) &

$L = 10 \log_{10} (10^{L_1/10} + 10^{L_2/10} + \dots + 10^{L_n/10})$

Where L_1 , L_2 and L_n are noise level dB (A)

Table No. 4.21: Predicted Noise levels in Core Zone and buffer zone

Location Code	Distance, km	Source Noise Level, dB(A)	L(Day) dB(A)	L(Night) dB(A)	Noise level at Receptor from Mining sources, dB(A)	Resultant noise level, dB(A) day time	Resultant noise level, dB(A) Night time
Cluster Core Zone	--	100	40.9	36.4	100	100	36.4
Iduvai	1.2	100	36.9	33.4	45.2	36.9	33.4
Sedapalayam	3.1	100	37.4	33.0	42.3	37.4	33.0
Velampalayam	2.0	100	39.5	34.6	39.6	39.5	34.6
Aarumuthampalayam	1.5	100	40.2	35.4	41.7	40.2	35.4

Green colour- Baseline Value, **Red Colour** – Noise level due to mining,

Blue colour- Baseline + Noise level due to mining

Although the noise level due to the operation of various mining machineries is 100dB(A), the noise level at different receptors is lower due to the distance involved and other topographical features adding to the noise attenuation. The calculated values at the receptors and resultant noise level are based on the mathematical formula as mentioned above.

The anticipated noise level in buffer villages due to mining activity is calculated by considering operation of one quarry only. **When all the quarries in the cluster work together in same time, the resultant noise level may increase up to 5 decibel.**

To overcome the noise pollution due to operation of quarries in the cluster area the following mitigation measure should be followed.

4.4.2 Mitigation measures for Control of Noise

The following noise mitigation measures are proposed for control of Noise.

- ❖ Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas.
- ❖ Limiting time exposure of workers to excessive noise.
- ❖ Proper and regular maintenance of vehicles, machinery and other equipments.
- ❖ The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments.
- ❖ Speed of trucks entering or leaving the mine will be limited to moderate speed to prevent undue noise from empty vehicles.

- ❖ Carrying out blasting only during day time and not on cloudy days.
- ❖ Noise levels will be controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes.
- ❖ Providing proper noise proof enclosure for the workers separated from the noise source and noise prone equipment
- ❖ Provision of Quiet areas, where employees can get relief from workplace noise.
- ❖ The development of green belts around the periphery of the mine to attenuate noise.
- ❖ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects.

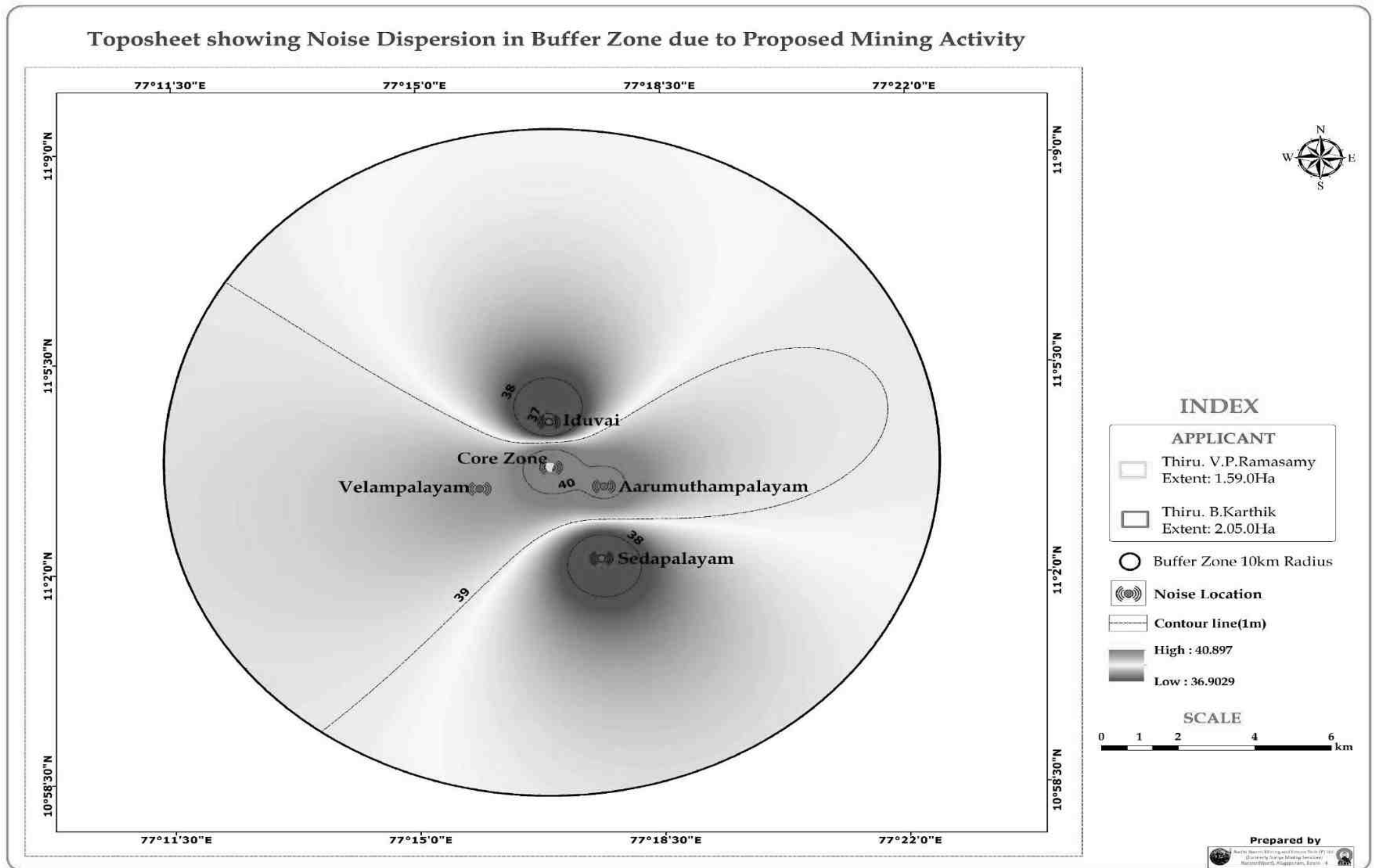


Fig No. 4.3: Noise dispersion in cluster core and buffer zone due to proposed mining activity

4.5 Ground Vibrations

Ground vibration due to mining activities in the area are anticipated due to operation of mining machines like excavators, wheel loaders, drilling and blasting, transportation vehicles, etc. However, the major source of ground vibration from this mine is blasting. Another impact due to blasting activities is fly rocks. These may fall on the houses or agriculture fields nearby the mining lease area and may cause injury to persons or damage to the structures. The nearest major habitation, Iduvai village is located in northeast side. The study area does not involve any mining activity so anticipated impact has been assessed using the empirical equation. The empirical equation used for assessment of peak particle velocity (PPV) is:

$$V = 417.8 \{D / (Q^{0.5})\}^{-1.265}$$

Where,

V= Peak particle velocity in mm/s

D= Distance between location of blast and gauge point in m

Q=Quantity of explosive per blasting in kg.

The standards for safe limit of PPV are established by Directorate General of Mines Safety for safe level criteria through Circular No. 7 dated 29/8/1997. Permissible standards of Ground vibration due to blasting as per guidelines of Director General of Mines Safety (DGMS), Dhanbad are given in table 4.24.

**Table No. 4.22: Estimated Peak Particle velocities for different Explosive Charges
(Thiru. B. Karthik -2.05.0 Ha)**

Nearest Habitation	Quantity of Explosive/Blast, Kg	PPV, mm/s
270m -NW	56	4.47
300m -NE	56	3.91

**Table No. 4.23: Estimated Peak Particle velocities for different Explosive Charges
(Thiru. V.P. Ramasamy- 1.59.0 Ha)**

Nearest Habitation	Quantity of Explosive/Blast, Kg	PPV, mm/s
490m-NE	35	1.56
500m-E	35	1.52

Note: The empirical formula does not take into account the delay factor in blasting due to use of delay detonators.

Table No. 4.24: Permissible Peak Particle Velocities (mm/s)

S. No	Type of Structure	Dominant excitation Frequency		
		< 8 Hz	8 – 25 Hz	> 25 Hz
A)	Buildings/structures not belonging to the owner			
1	Domestic houses/structures (Kuchcha brick and cement)	5	10	15
2	Industrial Buildings (RCC and framed structures)	10	20	25
3	Objects of historical importance and sensitive structure	2	5	10
B)	Buildings belonging to the owner with limited life span			
1	Domestic houses/structures (Kuchcha brick and cement)	10	15	25
2	Industrial buildings (RCC & framed structures)	15	25	50

Source: DGMS Circular No. 7 dated 29/08/1997

From the above results in table 4.22, it can be seen that the charge per blast of 56kg and 35 kg is well below the Peak particle Velocity of 5mm/s for the habitation located at the distance of 270m and 300m. From the table 4.23, So, the project proponents are recommended to adopt delay detonators to keep PPV of ground vibration below 5mm/s.

4.5.1 Mitigation measures for Control of Vibration

Blasting is the major source of vibration and fly rocks. The following mitigation measures are proposed for control of vibration and fly rocks.

- ❖ Specific charge pattern has to be designed by proper trial vibration studies with varying charge ratios.
- ❖ Milli second detonators shall be used preferably 25–50ms per delay to control vibrations.
- ❖ Inclined holes shall minimize back brake and intensive shocks.
- ❖ In case of development work if any, cushion blasting and Deck loading system shall be adopted to minimize throw of fragments and ground vibration.
- ❖ Air blast due to usage of Detonating Cord with 10gms/m shall be reduced to 5gms/m to minimize air reverberation.
- ❖ If the vibration still exceeds the limit a long Trench to a depth of 6m may cut in the direction of wave's movement to break longitudinal waves which travel close to surface, preferably near mine buffer zone.
- ❖ No deep hole blasting shall be practiced.
- ❖ Heavy machineries with high ground pressure shall not be used in the mines.
- ❖ Proper warning signals should be used.

- ❖ In spite of all measures periodical testing of vibration and noise using approved seismograph by DGMS has to be followed as a part of Environmental monitoring.

Though all mitigation measures are pointed out, as such no adverse effects on human life, wild life and other biotic system.

4.6 Water Environment

Mining operations can affect groundwater quality in several ways. The most obvious occurs in mining below the water table, either in underground workings or open pits. This provides a direct conduit to aquifers. Groundwater quality is also affected when waters (natural or process waters or wastewater) infiltrate through surface materials (including overlying waste or other material) into ground water.

Whereas Impacts on surface water include the build-up of sediments or other toxic products, short and long-term reductions in pH levels (particularly for lakes and reservoirs), destruction or degradation of aquatic habitat, and contamination of drinking water supplies and other human health issues. The water balance for the two proposed project is presented in fig 4.6.

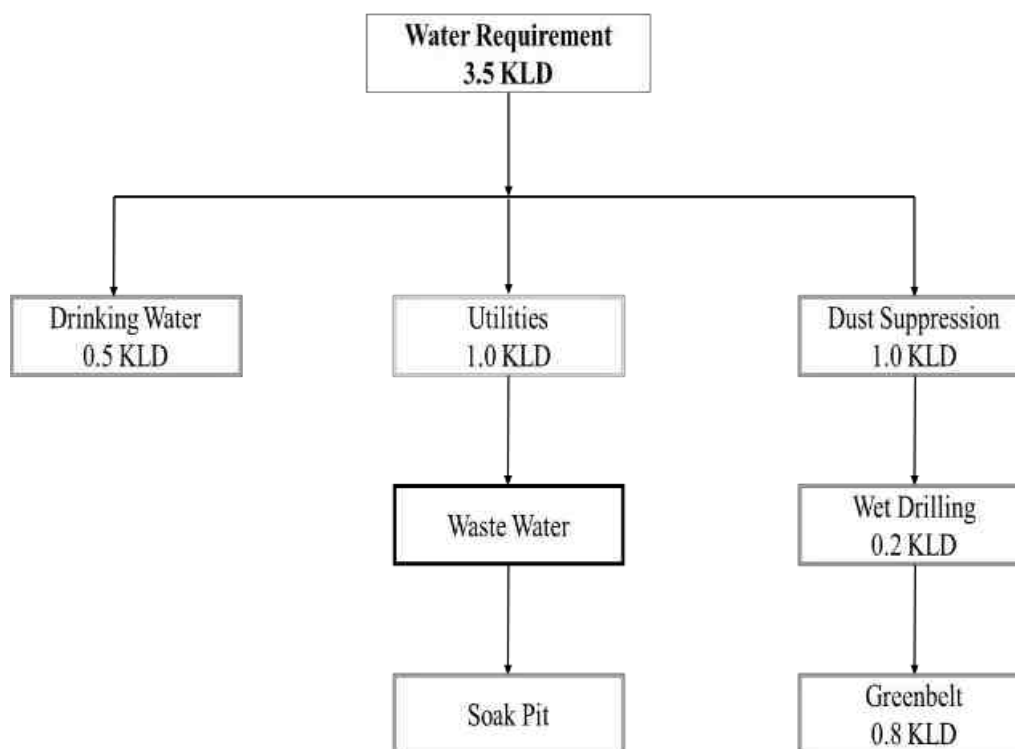


Fig. No. 4.4: Water Balance chart for each quarry Thiru. B. Karthik and Thiru. V.P. Ramasamy

Drinking & Utilities = 1.0 KLD

Water required For Dust Suppression, Green Belt, wet drilling = 2.5 KLD

Total Water Requirement = 3.5 KLD

4.6.1. Anticipated Impact on Surface Water body due to proposed projects

There are no major river or water bodies, odai track, nallah and ponds found within 500m radius. From the proposed mining project, rejects will be generated which is planned to dump within the mining lease area. Even though the streams order not connecting with the nearest dam, there will be chance of siltation of river bed during raining season due to mining activity. To over such siltation in the river the following mitigation measure will be followed.

4.6.1.1 Mitigation Measures:

- i. The garland drainage will be provided around the dump to prevent the escape of runoff along with silt and stone from the dump.
- ii. The repair works of the machineries are strictly prohibited within the lease area to prevent the spillage of grease, oil etc.

4.6.2 Anticipated Impact on Ground water due to proposed project

The water table in this region is about 68 to 73m bgl. The proposed depth of mining for two quarries is 32 and 42m bgl. Thus, the mining activity will not intersect ground water table. No chemical having toxic elements will be used for carrying out mining activity. Also, rough stone does not contain any kind of toxic element which can contaminate the water. So, the rain water or water used for drilling purposes which infiltrates into the ground in the lease area does not affect the quality of ground water. The schematic representation of depth of mining and water table is given in fig 4.5 and 4.6.

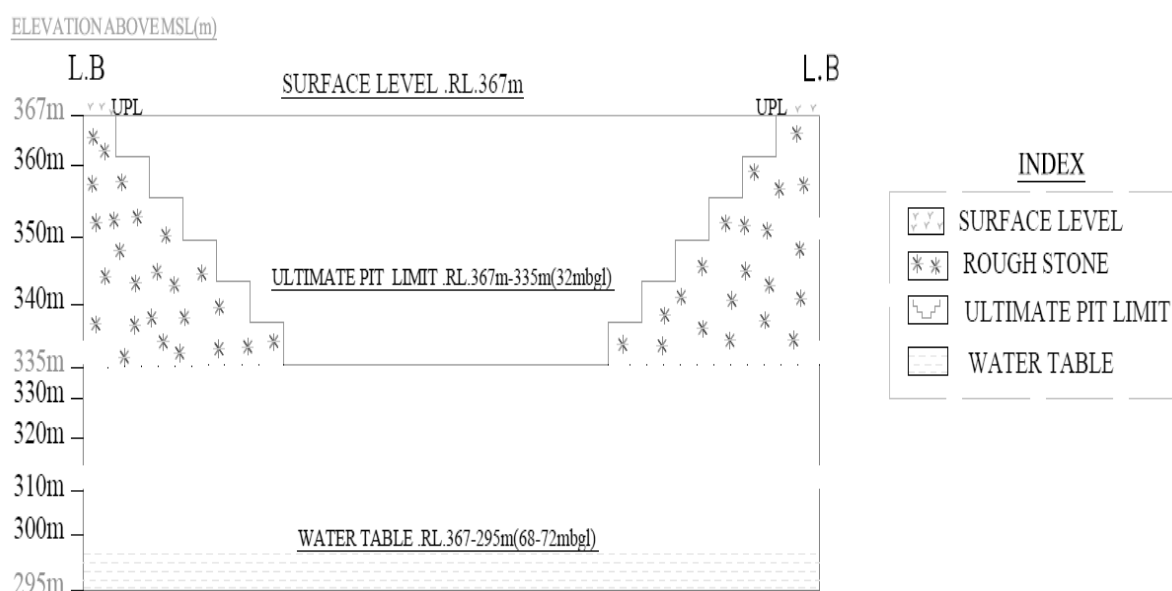


Fig No. 4.5: Schematic representation of depth of mining and water level for Thiru. B. Karthik rough stone and gravel quarry (2.05.0 Ha)

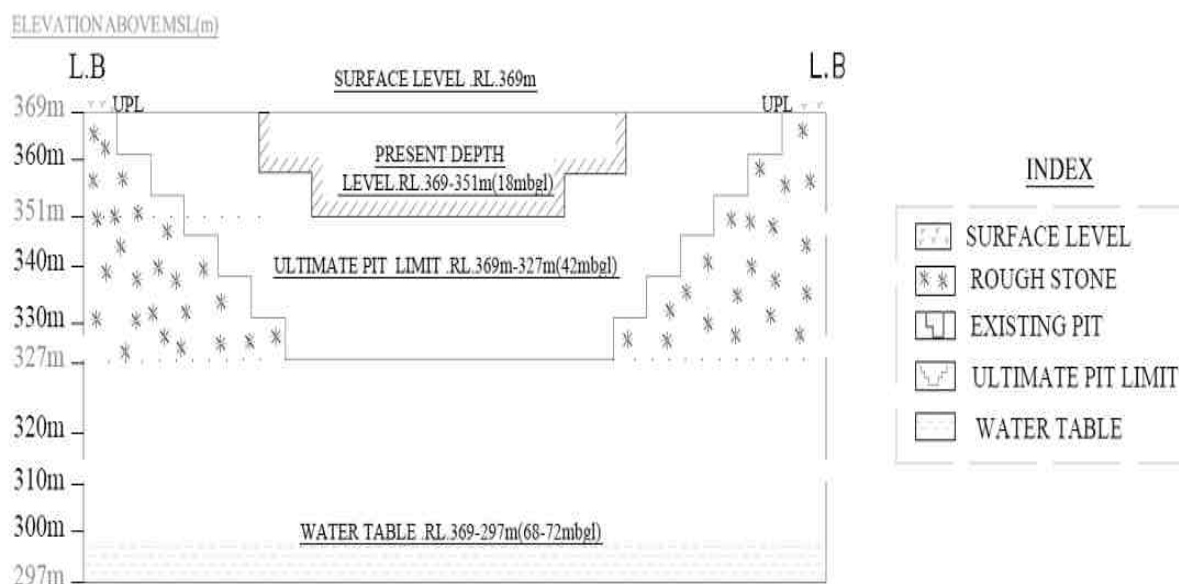


Fig No. 4.6: Schematic representation of depth of mining and water level for Thiru. V.P. Ramasamy rough stone and gravel quarry (1.59.0 Ha)

4.6.3 Management of rain water in the pit during Monsoon Season

During monsoon season, the rain water gets stored in the quarried-out pit. For the working purpose, rain water will be pumped and allowed to store in the surface setting tank constructed outside the lease area to remove suspended solids if any. After the sedimentation process, the water from the settling tank will be used for dust suppression, and green belt development within the lease area.

4.6.4 Water Quality Index

Water Quality Index value has been calculated for the observed values and compared with drinking water specification as per IS 10500:2012 and results were discussed. The WQI has been calculated by using the standards of drinking water quality recommended by the World Health Organization (WHO), Bureau of Indian Standards (BIS) and Indian Council for Medical Research (ICMR). The weighted arithmetic index method (Brown et. al.,) has been used for the calculation of WQI of the water body.

$$\text{Water Quality Index} = \frac{\sum q_n W_n}{\sum W_n}$$

Further quality rating or sub-index (q_n) was calculated using the following expression.

$$q_n = 100 * [V_n - V_{io}] / [S_n - V_{io}] \text{ Where,}$$

q_n = Quality rating for the nth water quality parameter.

V_n = Estimated value of the nth parameter at a given sampling station.

S_n = Standard permissible value of the nth parameter.

V_{io} = Ideal value of nth parameter in a pure water.

Ideal value in most cases $V_{io} = 0$ except in certain parameters like PH and dissolved oxygen.

V_{io} for PH = 7 and V_{io} for DO = 14.6

W_n = Unit weight for the n th parameter.

The overall Water Quality Index (W.Q.I.) was calculated by aggregating the quality rating with the unit weight linearly.

Table No. 4.25: Unit weight of the water quality parameters

Parameters	Water quality standard (WHO/BIS)	Assigned weight (AW)	Unit weight (UW)
pH	6.5-8.5 (8)	3.66	0.1628
EC (μ S/cm)	250	2.50	0.1112
TDS (mg/l)	500	3.33	0.1481
TH (mg/l)	200	3.33	0.1481
Ca ²⁺ (mg/l)	75	3.0	0.1334
Mg ²⁺ (mg/l)	30	2.66	0.1183
Cl ⁻ (mg/l)	250	4.0	0.1779
Total	-	22.48	1.0

Table No. 4.26: Water quality index of water samples

Sampling Site Name	Water Quality Index Value	Water Quality Index Status
Cluster Core	51.23 mg/l	Poor
Iduvai	38.16 mg/l	Good
Sedapalayam	85.36 mg/l	Very Poor
Velampalayam	57.62 mg/l	Poor
Aarumuthampalayam	42.56 mg/l	Good

Note: Water Quality is calculated only for Physical and Chemical Parameters

Table No. 4.27: Water quality scale

Water quality	WQI Yadav et al 2016	WQI Ramakrishnaiah 2004	WQI Mohanty 2001
Excellent	0–25	<50	<50
Good	26–50	50–100	50–100
Poor	51–75	100–200	100–200
Very Poor	76–100	100–200	200–300
Unsuitable	Above 100	<300	<300

Note: Water Quality is calculated only for Physical and Chemical Parameters

The WQI of the samples collected from the study area are given in table 4.26. It can be seen that the study area has water quality index value ranging from 38.16 to 85.36 which reflects the good water quality to very poor water quality status of the groundwater quality. The findings demonstrate the varying consistency of groundwater at different locations. All the groundwater samples under poor to unfit for drinking category; it may be due to the absorption of fertilisers, geological condition, channel water, solid waste, sewer drainage, septic tanks, and agricultural waste. The water should be treated by reverse osmosis to reduce dissolved solids and total hardness to the required rate.

4.6.5 Impact on Hydrogeology

In general, the groundwater prospects are less in hard rock areas, especially in Hard rock terrains. The deeper aquifers in hard rock terrains have potential only when they are fed by fractures and thick weathered layer. In the present study, to know the subsurface Lithology and layer thickness of groundwater potential zone were carried out vertical electrical soundings (VES). The resistivity signal dimensions were collected by using DDR-3 model resistivity meter. AB/2 electrode spacing of 100m is used by Schlumberger configuration. The data were analyzed by curve matching techniques. From the apparent resistivity data, the interpreted resistivity curve obtained using the software it is observed that 3 layer curves shown in the fig 4.7. Data collection is another important factor for the success of resistivity method. The interpretation of resistivity data four layer master curve matching technique has been used. Interpreted Resistivity and layer thickness of various layers shown in table 4.28.

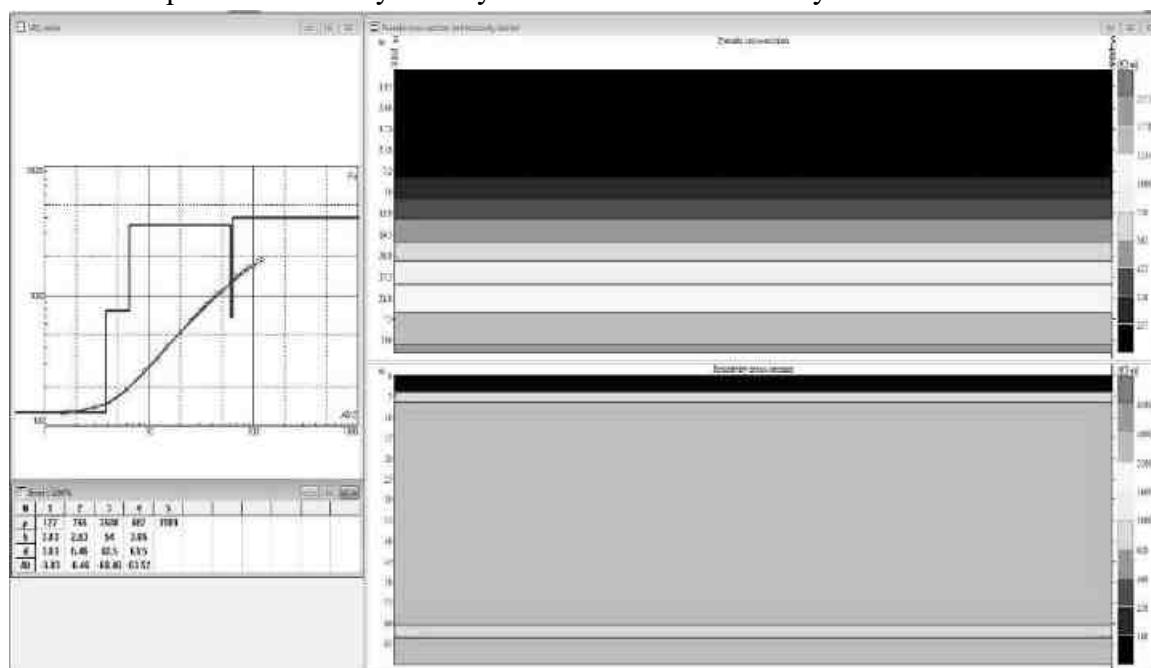


Fig No. 4.7: Interpreted resistivity curve matching technique

Table No. 4.28: Interpreted layer parameters from Geo-electric resistivity soundings

Resistivity (Ω m)	Depth in (m)	Formation
127 Ohm	0-3.83m	Top soil & Gravel
766 ohm	3.83-6.46m	Weathered rock formation
3508 ohm	6.76-60.5m	Massive Charnockite formation
687 ohm	60.5-63.5.m	Jointed and fractured rock
3989 Ohm	Above 63.5m	Hard massive formation

The hydro geological, geophysical studies indicate water bearing aquifer is located at 60.5-63.5m below ground level (BGL). The maximum depth of mining proposed project for five years 32 m and 42m below ground level. Therefore, the mining operation will not affect the aquifer throughout the entire mine life period.

4.7 Soil Environment

4.7.1 Impact on Soil Environment

a) Thiru. B. Karthik – 2.05.0 Ha

For the mining plan period of five years, there is no top soil generation in this quarry. No chemical or toxic elements will be used during mining activity. So, the health of soil in and around the quarry will not be affected.

b) Thiru. V.P. Ramasamy – 1.59.0 Ha

For the mining plan period of five years, there is no top soil generation in this quarry. No chemical or toxic elements will be used during mining activity. So, the health of soil in and around the quarry will not be affected.

4.7.2 Mitigation measures for Soil Conservation

- ❖ Low height retaining wall will be provided along the toe of dumps to prevent the soil along the slopes being carried away by the rain water.
- ❖ Top soil should not be mixed with other waste or reject materials. It should be conserved by judicious utilization in the mine premises.

4.8 Waste Dump Management

4.8.1 Anticipated Impact

a) Thiru. B. Karthik – 2.05.0 Ha

The proposed rate of production of rough stone for five years is about 172820m³ at the rate of 100% recovery up to permissible depth.

b) Thiru. V.P. Ramasamy – 1.59.0 Ha

The proposed rate of production of rough stone for five years is about 95843m³ at the rate of 100% recovery up to permissible depth.

4.8.2 Mitigation measures

The mineral rejects and waste shall be dumped systematically with proper repose angle and stabilization as given below,

- ❖ The rejects\ waste dump shall be properly terraced in to 1.5m benches with proper repose angle and then the top soil shall be spread over the dumps and slope to make them humus for some time, after the soil suitable for water retention, trees will be planted at the top, slope and toe of the stabilized dumps to form vegetation.
- ❖ Gradation of dump shall be done automatically as coarser materials go to the bottom and finer at the top and therefore drain of rain water flow freely to the bottom without endangering the stability of dump,
- ❖ More over the dump height shall be less than 6m with natural repose angle and hence dump will be more stable.
- ❖ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse.
- ❖ The runoff from the slopes of dump will be collected by garland drainage around the dump and it will be taken up to settling tank to settle down the suspended solids. After that the water will be used for greenbelt development and dust suppression purposes.

4.9 Municipal solid waste management

The human waste shall be treated by temporarily built septic tank and soak pit within the mine lease area. The municipal solid waste generated by workers will be properly segregated into biodegradable and non-biodegradable and disposed through garbage collector of particular location in Tirupur District.

4.10 Ecology and Biodiversity

4.10.1 Impact on Ecology and Biodiversity

The details and list of flora, fauna, reserved forest and cropping pattern within the 10km radius of study area is given in chapter 3. The impact on ecology and biodiversity due to the proposed mining activity has to be studied in detail to prepare the management plan to safeguard the flora, fauna, forest products and aquatic living organism etc. A detailed anticipated impact of Ecology and Biodiversity due to mining activity is described in table 4.29 & 4.30.

Table No. 4.29: Ecological Impact Assessments and Its Mitigations -Part 1

Sl. No	Issues	Assessment	Mitigations
1	Proximity to national park/ wildlife sanctuary / reserve forest / mangroves / coastline/estuary/sea	No forests are situated within 10km radius. The proposed project does not attract Forest Conservation Act, 1980. There is no wild life sanctuaries found around 10km radius. Quarry area is 154km (w) away from the Arabian sea. Hence the area does not attract Wildlife Protection Act, 1972 and C.R.Z. Notification, 1991.	-
2	Activities of the project affects the breeding/nesting sites of birds and animals	No breeding and nesting site was identified in mining lease site. The fauna sighted mostly migrated from buffer area. The fauna in the buffer zone may be affected by noise generated due to mining activity.	The noise due to the mining activity will be controlled developing green belt all along the lease boundary, regular maintenance of tippers, excavators, transporting the empty tipper within the speed the 20 km/hr.
3	Located near an area populated by rare or endangered species	No endangered, critically endangered, vulnerable species sighted in core mining lease area and also in buffer zone.	Nil
4	Proposed project restricts access to waterholes for wildlife	No waterholes are in core zone. No Wild life sanctuary within 10km radius.	Nil
5	Proposed mining project impact surface water quality that also provide water to wildlife	'NO' scheduled or threatened wildlife animal sighted regularly in core area.	Nil
6	Proposed mining project increase siltation that would affect nearby Biodiversity area.	Yes, the runoff from the dump which carries the solid materials may get silt in the adjacent agricultural land and affect the cropping pattern. Also, it may get silt in the adjacent river bed and reduce its water carrying capacity	Garland drainage will be excavated around the dump to arrest the runoff from dump. The drainage will be desilted after every precipitation.
7	Risk of fall/slip or cause death to wild animals due to project activities	'NO'. No Wild life sanctuary within 10km radius.	Nil

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8	The project release effluents into a water body that also supplies water to a wildlife	As the proposed project is mining activity there will be no possibilities of release of effluents. Also, no Wild life sanctuary within 10km radius.	Nil
9	Mining project effect the forest-based livelihood/ any specific forest production which local livelihood depended	There is no forest are located beyond 10km. Hence the proposed mining activity will not affect the nearest forest.	-
10	Project likely to affect migration routes	No migration route observed during monitoring period.	Nil
11	Project likely to affect flora of an area, which have medicinal value	No flora having medicinal value found within the lease area	The flora such as neem having medicinal value found in the study area of buffer zone. Those floras will not be affected by the proposed mining activity at it will be carried out only within the lease area.
12	Forestland is to be diverted, has carbon high sequestration	'NO'. There is no forest land within the lease area.	Nil
13	The project likely to affect wetlands, fish breeding grounds, marine ecology	'NO'. No wetland, fish breeding grounds, marine ecology present in core mining area.	Nil

(Format Source: EIA Guidance Manual-Mining and Minerals, 2010)

Table No. 4.30: Ecological Impact Assessments – Part 2

Ecological Criteria	Identified Impacts	Ecological significance of Impact	Magnitude	Duration /Timing/ Frequency	Reversibility	Mitigation	Cumulative Impact
Zone of Influence	Project site Habitat due to Site Clearance.	The proposed mining lease is located in Iduvai Village. Since it is a fresh area, some shrubs will be cleared before the commencement of the project. The fauna which depends on the shrubs for habitat will be disturbed. No clearance of vegetation in the buffer zone	Low Impact	-	Irreversible in quarry area	During the clearance, it will find the alternate habitat in the buffer zone. During the operation of quarry, the proponent will develop the green belt along the lease boundary. This afforestation will provide the habitat for the migrated fauna.	No Cumulative Impact
Zone of Influence	Ecological Impact Surrounding habitat due to fugitive emission	The fugitive emission due to the mining activities such as drilling, blasting, loading and transportation on the haul road will be deposited on the flora and crop field in the buffer zone which affects growth and its productivity.	Temporary Impact	During the mining plan period	Reversible	Before loading the rough stone & gravel will be moisturized to minimize the emission. The sprinkling of water over the haul road will be done. Then completely wet drilling will be take place. The transportation vehicles	No Cumulative Impact

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						will be maintained and serviced Properly.	
Accessibility	Ecological Impact due to road construction	No Road construction is required to assess the project site. The existing village road connects the project site to the existing MDR road.	No Impact		-	-	No Impact
Zone of Influence	Ecological Impact On Surrounding/ Eco sensitive habitat due to waste water generated from the project activity.	Since the proposed project is a mining activity no waste water generation is expected. Human waste and municipal solid waste will be generated due to the workers.	No Impact	-	-	Human waste will be properly treated by septic tank and soak pit in the lease area and dispose periodically. The municipal solid waste generated by workers will be properly segregated into biodegradable and non-biodegradable and disposed through garbage collector of Coimbatore Corporation.	No Impact

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Zone of Influence	Ecological Impact on Surrounding / Eco sensitive habitat due to Noise generated from the project activity.	During drilling or blasting, transportation of ordinary stone and gravel, noise will be generated and it may slightly affect the movement of fauna around the lease area.	Temporary impact	Only during drilling, blasting operation and transportation period. (5 years)	No	Avenue trees will be planted along the lease area to minimize the noise level. Milli second detonators shall be used preferably 25–50ms per delay to control vibrations. Regular maintenance of vehicles and driving the empty tipper within 20km/hr speed also control the noise generations.	No Impact
Zone of Influence	Ecological Impact On Surrounding/ Eco sensitive habitat due to Transportation	There is no eco sensitive habitat found around the lease area. The fugitive emission from drilling, blasting, vehicle movement will form layer in leaves thus reducing the gaseous exchange process. This Ultimately affects the growth of plants. The animals like dog, cattle may get accident due to truck movement.	Temporary impact	During Operation Phase	No	The truck driver will be advised to drive the vehicle within 20km/hr inside the lease area and 40km/hr outside the lease area. Before loading the rough stone & gravel will be moisturized to minimize the emission. The sprinkling of water	No Impact

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						over the haul road will be done. Then completely wet drilling will be take place.	
Zone of Influence	Ecological Impact on Natural ecosystem, the soil micro flora and fauna and soil seed banks.	There are no forests and wild life sanctuary within 10km radius of the project site. During raining season the runoff from the lease may affect the habitants in the river and reduce river carrying capacity	Temporary Impact	Nil	--	The garland drainage will be around the quarry pit and dump to prevent the escape of runoff from the lease area to the river. The maintenance of vehicle will be strictly prohibited in the lease area to prevent the spillages of oil, grease.	No Impact
Zone of Influence	Fish habitats and the Food web/food chain in the water body and Reservoir	The noyyal river is located at the distance of 3.5 km from the lease area in east direction.	No Impact	Nil	--	The garland drainage will be around the quarry pit and dump. The maintenance of vehicle will be strictly prohibited in the lease area	No Impact

Table No. 4.31: Afforestation Plan of the Thiru. B. Karthik (2.05.0 Ha)

Year	Place	Type of Trees	Number	Spacing	Rate of survival
I	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
II	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
III	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
IV	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
V	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%

Table No. 4.32: Afforestation Plan of the Thiru V.P. Ramasamy (1.59.0 Ha)

Year	Place	Type of Trees	Number	Spacing	Rate of survival
I	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
II	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
III	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
IV	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%
V	Lease Boundary	Neem, Panai, casuarinas and other regional trees	30	5m X 5m	80%

4.11 Socio Economic

4.11.1 Anticipated Impact

This project will generate direct and indirect employment for more than 100 persons. Preference will be given to the local population for employment in all categories including semi-skilled and unskilled. The villages and their inhabitants in the buffer zone will not be disturbed from their settlements due to the mining operations.

It is obvious to assume that the activities of the mining operations will improve the socio-economic levels in the study area. The anticipated impact of this project on various aspects is described in the following sections

- Impact on human settlement: Overall, due to employment generation and economic progress, there will be positive changes in the socio-economic condition of the people residing in the vicinity of the project site. The local population will have preference to get an employment. No resettlement has occurred due to mining activity. Built up land has been increased marginally.
- Impact on Population Growth: Population rate grows annually and demand of primary needs and employment will increase due to population growth. It will provide some direct and indirect employment to the people in and around the villages.
- Impact on Vegetation: No decline in agricultural land. It has been increased over a period of time by utilizing the water stored in the working pits. No deforestation will be happened.

Therefore, due to mining, per capita income of local people will be improved. The local people have been provided with either direct employments or indirect employment such as business, contract works and development work like roads, etc. and other welfare amenities such as Sanitary facilities, Solar Lighting to Govt school, Health Care to the villages in buffer zone, Maintenance of village road or Providing funds to local body or Prime minister's fund on Socio economic Development and relief measures. The job/ business opportunities will improve the economic condition of the persons. They are in a position to utilize this money for purchase of tractors, trucks, etc. which may be put into use for business purposes. Many **positive impacts** can be resulted from a long-term mine unit. In this context, provision of job opportunities, business, transport and communication, laborer etc., are the major ones. Thus, this unit is highly favorable to poor and landless people.

4.11.2 Mitigation Measures

- Good maintenance practices will be adopted for plant machinery and equipment, which will help to avert potential noise problems.
- Green belt will be developed in and around the project site as per Central Pollution Control Board (CPCB) guidelines.
- Drilling, blasting etc., at specified location will be followed with proper schedule.
- Appropriate air pollution control measure will be taken so as to minimize the environmental impact within the core zone.
- For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices has been provided which meet 'BIS' (Bureau of Indian Standards).

Thus, no significant impact on health and safety will be occurred due to this project.

4.12 Land Environment

4.12.1 Anticipated Impact on Land Use / Land Cover

Rough stone and gravel quarry project will result in disturbance of the land use pattern of the mine lease area. The impact on the topography in the form of changed landscape is unavoidable during mining activities like excavation, overburden dumping, soil extraction etc. Land requirement for the project has been assessed considering functional needs. So, reclamation of mined out land will be given due importance as a step for sound land resource management. There is no release of toxic elements into the ground. No adverse impact is anticipated on land use of buffer zone associated due to the mining activity, as all the activities will be confined within the project site. The mining operations will impact the land usage and land aesthetics of quarry lease area.

The land use analyses show that the Tree plantation was done around the mining lease area of Thiru. B. Karthik and Thiru. V. P. Ramasamy. The rate of plantation increases over a period of time due to quarry activity. At the end of the project, the quarried pit will be act as water storage pond. The stored water will be used for developing Tree plantation around the mining lease area. It will improve the livelihood of village people. The evaporation rate of the water in the pit is given detail in the report.

4.12.2 Mitigation measures

- ❖ The restoration of the degraded land would cover backfilling and terracing with the overburden / wastes and surfacing the same with top soil.
- ❖ Provision of Garland drainage around the dumps
- ❖ Fast growing trees and other native shrubs would be planted to stabilize the reclaimed land
- ❖ Appropriate measures will be taken for green belt development.
- ❖ The rain water will be stored in the pit which will recharge the ground water as a part of rain water harvesting scheme for irrigating the nearby agricultural lands.

4.13 Occupational Health Risks

4.13.1 Anticipated Impact

Occupational health and safety hazards occur during the operational phase of mining. The problem of occupational health, in the operation and maintenance phases is primarily due to dust, which could affect breathing. Health and Safety Measures to control dust inhalation; precautions would be adopted to prevent dust generation at site and dispersing in the environment. Long-term exposure to silica dust may cause silicosis. Workers are likely to get

exposed to excessive noise levels during mining activities. Occupational Safety hazards related to blasting activities may result in accidental explosions, if not properly mitigated.

4.13.2 Anticipated occupational and safety hazards

- ❖ Health Impact due to Physical activity, Extremes of age, poor physical condition, fatigue, Cardiovascular disease, Skin disorders
- ❖ Noise
- ❖ Burns and shocks due to electricity
- ❖ Respiratory hazards due to Dust exposure
- ❖ Physical hazards
- ❖ Explosives
- ❖ Fire

4.13.3 Anticipated health impacts on people in nearby villages

The mining activity not only causes health hazards to quarry workers but also affect the health of nearby village people. The fugitive emission during heavy wind period travel along the predominant wind direction and people in village located along predominant wind direction gets affected. The chances of changing water quality in villages due to mining activities lead to causes various diseases in the nearby village people.

4.13.4 Mitigation measures

For the safety of workers at site, the following mitigation measures are proposed

- ❖ Excavators, dumpers, drills other automated equipments will be enclosed
- ❖ Use of personal breathing protection will be made compulsory
- ❖ Spraying with water on all working faces & haul roads, by water-sprinkler
- ❖ Regular health monitoring of workers once in 6months for silicosis
- ❖ Random health checkup village people around the lease area for identify diseases if any due to mining activity
- ❖ No employee will be exposed to a noise level greater than 75 dB(A) for a duration of more than 8 hours per day without hearing protection
- ❖ Ear muffs provided will be capable of reducing sound levels at the ear to at least 75 dB(A).
- ❖ During mining operations, all the statutory provisions of the Indian Electricity Rules 1956, and Indian Standards for installation and maintenance of electrical equipment etc. will be observed.
- ❖ Care will be taken to evacuate the mining area completely at the time of blasting operations.

- ❖ A blasting SIREN will be used at the time of blasting for audio signal
- ❖ Before blasting and after blasting, red and green flags will be displayed as visual signals.
- ❖ Warning notice boards indicating the time of blasting and NOT TO TRESSPASS are displayed prominently.
- ❖ First-aid facilities as per provisions under Rule (44) of Mines Rules 1955
- ❖ Initial and Periodical medical examination shall be conducted for the employees under Rule 29B & 45 (A).
- ❖ Insurance will be taken in the name of the labourers working in the mines.

4.14 Agricultural Environment

4.14.1 General

The general impacts on agricultural lands will be dust pollution, as volume of dust is discharged into the air during the process of quarrying. Dust gets deposited on the leaves of plants, flowers and soil. This affects the photosynthetic and fruiting ability of the crops. Silt from the excavation, screening process and reject during monsoon season gets washed and chokes the agricultural fields, rendering them useless for the growth of crops. Due to blasting, fly rocks may fall on agricultural fields making it difficult for the farmer to cultivate.

There is a need for dust control on haul road movements. Vehicles emit fugitive gases during transportation of materials. Those gases enter the plants through the stomata pores; it destructs chlorophyll and affects photosynthesis leading to stunted growth or death of crops. The pumping of water from the ground for the mining activity will reduce the availability of water for the agricultural purposes.

4.14.2 Anticipated Impacts of Proposed project on Agriculture, Horticulture and livestock

The land use analyst sighted that the agricultural land is surrounded around the project site. Field crops such as maize, groundnuts are cultivated and the plantation crops such as coconut trees are planted within 1km radius of the project site. The field crop paddy is cultivated along the Amaravathi River which is located more 8k away from project site. Other than coconut plantation, maize, groundnuts mostly shrubs are identified within 1km.

As the villages are located around the project site, the people in the villages are farming animals like goat, cow, and sheep for their livelihood. The above-mentioned impact may be observed on the nearest agricultural farm during the quarrying activity. So, the following mitigation measures will be suggested to protect the nearest farm. The requirement of water for the proposed project will be taken from bottom of the existing pit and water

vendors. The ground water for the proposed project site will not be extracted at the same place and the proposed mining activity is 4-10m above ground water table. So, the proposed mining activity does affect the ground water resource.

4.14.3 Mitigation Measures

- Spraying of water on the haul roads will be done to suppress the dust in the source itself. Interval of sprinkling depends on the environmental factors such as temperature, rainfall and humidity of the proposed site.
- The trees having tolerance to different air pollutants will be planted along the boundary to prevent the escape of dust to the surroundings.
- Garland drainage will be provided around the lease area to prevent the leach of silt into the farm.
- Regular check and proper maintenance of Vehicles will be carried out to minimize the emission of pollutants.
- Adequate Blast shield or blast mats will be provided wherever necessary for fly rock protection during blasting, thus to prevent the accident on the nearest farms.
- During monsoon season the dust deposited on the surface of plant body is washed out naturally.
- Making two bore holes which have direct conduit with the water table in the lease area will help ground water recharge during monsoon seasons. It helps the agricultural activity in the buffer area of project site.

4.15 Post COVID Health Management Plan

- The vaccinated persons only will be given employment.
- The labors and other skilled, semi-skilled employees will be given a new mask daily.
- The body temperature of the labors will be checked using the temperature monitoring gun while getting into the quarry and getting out from the quarry.
- The labors will be advised to maintain the social distance of at least 10m and also advised to sanitize the hand.
- The general awareness program will be conducted about the handling of COVID-19 in two weeks once.
- The board referring the “Wear mask” and “Maintain social distance” will be placed in two sides of entrance of the quarry in local language.



Fig No. 4.8: Maintain social distance of 2m in work place



Fig No. 4.9: Sanitizing Hand Frequently



Fig No. 4.10: Wear Mask at the work place

CHAPTER – 5: ANALYSIS OF ALTERNATIVES (TECHNOLOGY AND SITE)

Consideration of alternatives to a project proposal is a requirement of the EIA process. During the scoping process, alternatives to a proposal can be considered or refined, either directly or by reference to the key issues identified. A comparison of alternatives helps to determine the best method of achieving the project objectives with minimum environmental impacts or indicates the most environment friendly and cost-effective options. Analysis of alternatives should be similar to the content of the approved mining plan.

The selection of the site is based on the following considerations which are feasible in terms of location, deposit characteristics, availability of reserves, percentage recovery, road facilities, labor availability, requirement of health and safety and environmental concerns, production scheduling, scope of mechanization/automation, land reclamation, and operating and capital cost estimates.

Geologically, Tiruppur district of Tamil Nadu forms a part of southern Granulitic terrain and is predominantly occupied by crystalline rocks of Archaean to late Proterozoic age. Regionally, the rocks can be grouped under five categories namely i. Charnockite Group represented by Charnockite, Pyroxene Granulite and Magnetite Quartzite, ii. Peninsular Gneissic Complex (II) comprising hornblende-biotite gneiss, iii. Basic intrusive include Pyroxinite/Dunite iv. Younger intrusive comprising, Nepheline-Syenite, Pink Granite, Pegmatite and Quartz veins and v. Quaternary sediments of Kankar and soil. Tiruppur District is predominantly occupied by hornblende Biotite gneisses of PGC (II) with enclaves of Magnetite Quartzite, Pyroxene Granulite and Charnockite. The area exposes several bands of Pyroxene Granulite which is medium grained, medium to dark grey in colour and stand out prominently in the gneissic country generally parallel to regional foliation. Charnockite is coarse grained, massive, many places it is foliated, grey coloured and greasy and exposed as bouldery outcrops and small knolls. It is well exposed in Central, Western and Southern parts of the Tiruppur District.

Hornblende-Biotite gneiss is well foliated, medium to coarse grained, pale grey and exposed as sheets and small knolls. Pink Granite gneiss occurs as thin bands and lensoidal bodies. It is a medium grained rock composed of alternating bands of mafic (mainly of biotite and hornblende) and felsic (Feldspar and Quartz) minerals. It is well recognized in Avinashi area.

CHAPTER – 6: ENVIRONMENTAL MONITORING PROGRAMME

Environmental Monitoring program is mandatory to check the impact of the mining activity in the core and buffer zone. Hence regular monitoring of various environmental parameters helps in maintaining sound operating practices of the mining in line with mining and environmental regulations. Environmental Monitoring program will be conducted for various environmental components as per conditions stipulated in Environmental Clearance Letter issued by SEIAA & Consent to Operate issued by TNPCB.

6.1 Measurement methodologies

The following instruments will be used for environment monitoring for various environmental parameters.

Table No. 6.1: Instruments used for Monitoring

S. No	Instruments	Purpose of Monitoring
1	Respirable Dust Sampler	Air Pollution
2	Fine Particulate Sampler	Air Pollution
3	Sound level meter	Noise level
4	Digital Seismograph	Vibration monitoring
5	Water level indicator	Water level
6	Geophysical Instruments (DDR3)	Water table
7	Camera, Binocular & Lens	Flora, Fauna
8	GPS & DGPS	For fixing the coordinates of sampling location
9.	Electronic Total station	Reduced level & topography monitoring

In addition to the above, Primary data on land use, socio economics will be collected by visiting the field and secondary data will be collected from Government Department and other sources.

6.2 Monitoring Schedule and Frequency

The sampling and analysis of the environmental attributes will be as per the guidelines of Central Pollution Control Board (CPCB). Monitoring program will be followed till the mining operation ceases as per the schedule below.

Table No. 6.2: Monitoring Schedule

S. No.	Environment Attributes	Location	Monitoring		Remarks
			Duration	Frequency	
1	Meteorology and Air Quality	Continuous monitoring weather station in core zone/ nearest IMD station	24 hours	Monthly Once	Wind speed, direction, Temperature, Relative humidity and Rainfall.
2	Air Pollution Monitoring – PM _{2.5} , PM ₁₀ , SO ₂ and NO _x	5 locations (One station in the core zone and at least one in nearby residential, area, one in the upwind, one station on the downwind direction and one in cross wind direction)	8 hours	Once in six months	Fine Dust Sampler and Respirable Dust Sampler
3	Water Pollution Monitoring	Mine effluents, Set of grab samples during pre and post monsoon for ground and surface water in the vicinity.	–	Once in six months	Phyiso–chemical, microbiological characteristics
4	Hydrogeology	Water level in open wells in buffer zone around 1km at specific wells	-	Once in six months	Water level monitoring devices may be used.
5	Noise	Mine Boundary, high noise generating areas within the lease and at the nearest residential area	24 hours	Monthly Once	Sound level meter
6	Vibration	At the nearest habitation (in case of reporting)	–	During blasting operation	Digital Seismograph
7	Soil	Core Zone and Buffer zone (Grab samples)	–	Once in six months	Physical and Chemical characteristics

6.3 Data Analysis

Data analysis will be done by MoEF&CC/NABL approved laboratory as per CPCB guidelines & compliance reports shall be submitted to concerned authority (specified in Environment Clearance Letter issued by SEIAA, Tamil Nadu and Consent issued by TNPCB, Karur on regular basis.

6.4 Emergency procedures

The mines manager monitors the emergencies that may occur in opencast mining operations and prepares an emergency plan to deal with emergency situations during the operation of the mine. Preparation of a preventive maintenance schedule program based on recommendations given and maintenance schedules for all equipments and instruments as per recommendations of the manufacturer's user manuals.

6.5 Detailed Budget

Detailed budgetary provisions for monitoring program are detailed in the following table 6.3 and 6.4.

Table No. 6.3: Environment monitoring budget for Thiru. B. Karthik, an extent of 2.05.0 Ha, Iduvai Village, Tirupur South Taluk, Tirupur District

S. No	Environmental Monitoring Program	No. of samples per year	Cost per sample	Cost per year
1	Ambient Air Quality monitoring	5	Rs. 4,000	Rs. 20,000
2	Water quality	2	Rs. 2,500	Rs. 5,000
3	Soil quality	2	Rs. 2,500	Rs. 5,000
4	Noise monitoring	10	Rs. 1,000	Rs. 10,000
5	Hydro geology	5	Rs. 1,000	Rs. 5,000
	Total			Rs. 45,000

Table No. 6.4: Environment monitoring budget for Thiru. V. P. Ramasamy, an extent of 1.59.0 Ha, Iduvai Village, Tirupur South Taluk, Tirupur District

S. No	Environmental Monitoring Program	No. of samples per year	Cost per sample	Cost per year
1	Ambient Air Quality monitoring	5	Rs. 4,000	Rs. 20,000
2	Water quality	2	Rs. 2,500	Rs. 5,000
3	Soil quality	2	Rs. 2,500	Rs. 5,000
4	Noise monitoring	10	Rs. 1,000	Rs. 10,000
5	Hydro geology	5	Rs. 1,000	Rs. 5,000
	Total			Rs. 45,000

CHAPTER – 7: ADDITIONAL STUDIES

7.1. Public Consultation

The Draft EIA report has been prepared for conducting public hearing only.

7.2 Risk assessment and Disaster Management Plan

Risk Assessment is all about prevention of accidents and to take necessary steps to prevent it from happening. The mining operation is carried out under the management control and direction of a qualified mines 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, if any.

To overcome such risks, help/aid would be sought from emergency services providers like Police station, fire station, Hospital, Ambulance services in the vicinity of the mine site. Their telephone numbers and communication facilities are to be provided and displayed on the board at the mine office as well as mine site. Responsibility of coordinating rescue activities is entrusted to quarry-in-charge at the quarry site in addition to quarry-in-charge is also looking after statutory obligatory under Mines Act, 1952. Name and Address of Contact Person coordinating in case of Eventuality is stated below:

Name and Address of the Proponent	Thiru. B. Karthik 3/563, Kuttai Thottam, 63, Velampalayam Palladam Taluk Tirupur District 641663 Mobil No: 9842284083 Email id: karthikgokul999@gmail.com
	Thiru. V. P. Ramasamy, 2/697-A, Vivkananda Nagar Main Street, S.R. Nagar South, Mangalam Road Tirupur District- 641 687 Mobile No: 9965561626 Email: vprcrusher.office@gmail.com

However, the following natural/industrial hazards may occur during normal operations.

- i. Operational Phase,
- ii. Inundation of mine pit due to flood/excessive rains,
- iii. Accident due to transport & other equipment's,
- iv. Safety and Environmental aspects.

Table No. 7.1: Risk Assessment and Disaster Management Plan

S. No	Hazards	Mitigation measures
1	Surface Fire	➤ Fire Extinguishers and Sand Buckets
2	Explosives/Blasting	➤ The applicant is directly purchasing explosives from an authorized dealer and they are blasting with help of certified blaster. Agreement is made with License holder in Form-22 for store, use and sale of explosives. ➤ Only mild blasting will be carried out to affect a perfect pre-determined crack to release the block from the parent rock.
3	Flooding of Rain water	➤ Escape Routes will be provided to prevent inundation of storm water ➤ Garland drains will be provided at the toe of dump
4	Radioactive hazard	➤ Not Anticipated
5	Failure of Mine Benches and Pit Slope	➤ Ultimate or over all pit slope shall be 45° and each bench height shall be 6m height equal to the boom height of excavator and vertical. ➤ During working normally 3-6m will be maintained as per the plan.
6	Failure of Waste Dumps	➤ Stabilization of dump with top soil and tree plantation shall make the dump more stable. ➤ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse.
7	Dust	➤ Periodical wetting of land by spraying MgCl₂ solutions. ➤ Regular water sprinkling on haulage roads ➤ Provision of Dust mask to workers ➤ Green Belt shall be carried out within the mine premises by planting trees, to improve the aesthetics of the area and also to reduce the pollution outside the activity area
8	Noise	➤ Rotation of workers to minimize exposure time of noise ➤ The equipments and machineries shall be maintained properly ➤ Provision of earmuffs to workers
9	Transportation	➤ Convex mirrors should be kept at all corners ➤ All vehicles should be fitted with reverse horn with one spotter at every tipping point ➤ Loading according to the vehicle capacity ➤ Regular checking of brakes to avoid failures ➤ Periodical maintenance of vehicles
10	General measures	➤ No entry for any unauthorized persons ➤ S1 type fencing as per DGMS circulars ➤ Provision of Personal Protective Equipments ➤ In case of any closure of mine the compensation under Industrial Dispute Act will be paid as per law

7.2.1 Care and Maintenance during temporary discontinuance

Watch and ward are provided permanently in the Mine premises to monitor the Mine openings to prevent inadvertent entry. Top soil bund is made partly and Stone fencing is proposed all around lease boundary to safe guard the mine and the adjacent livings. Temporary discontinuance will be minimal as there is good demand for this material in tiles industries.

7.2.2 Economic repercussions of closure of mine and manpower retrenchments

7.2.2.1 Number of local residents employed in the mine, status of continuation of family occupation and scope of joining occupation back

Total of 53 Persons get employment from the two quarries Thiru. B. Karthik (2.05.0 Ha) and Thiru. V.P. Ramasamy (1.59.0 Ha). Most of labors are Agriculturist. In case of closure of mine, they may continue their own work or join in the neighbor mines as there are few ordinary stone quarries around this area within 500m. Since the quarry is deposited with high resources immediate retrenchment may not arise.

7.2.2.2 Compensation given or to be given to the employees connecting with sustenance of himself and their family members

In case of any closure of mine the compensation under Industrial Dispute Act will be paid as per law. All workers shall get retrenchment benefits as per labour laws under enforcement.

7.2.2.3 Satellite occupations connected to the mining industry – number of persons engaged therein – continuance of such business after mine closes

The quarrying activity shall lead to development of several ancillary units and business, which are explained below:

- i. Other than mine employment, workshops, spare parts, hotels, tea shop and related several self-employment opportunities.
- ii. Several shops and service providers shall grow in the public adjacent to mines.
- iii. Schools and city development shall also be possible owing to the fact of economic growth in the village.

7.2.2.4 Continued engagement of employees in the rehabilitate status of mining lease area and any other remnant activities.

In the event of closure of mine, the mine worker shall get alternate work or business-like agriculture etc. No serious repercussions envisaged in the event of cessation of mining activity, as they will be provided employment in other mines belong to the company.

7.2.2.5 Envisaged repercussions on the expectation of the society around due to closure of mine

Persons on roll at the time of closure will get benefit as per State Govt. guidelines as applicable at the time of retrenchment

7.2.3 Time Scheduling for abandonment

The following works are scheduled before abandoning the mine,

- i. Parapet wall of 2m height will be constructed around the pit,
- ii. Planting and monitoring of Afforestation program.

There is no proposal for closure of mine for the next 5 years. The parapet and plantations will be done during operation of mine. In case of any abandonment the following time is required,

Activities	Days for schedule
Time schedule for fencing	6 months
Time schedule for reclamation of mined out area	1 year

7.3 Social Impact Assessment, R&R Action Plans

The Ordinary Stone and Gravel quarry project of Thiru. B. Karthik and Thiru. V.P. Ramasamy does not involve any kind of displacement of the population since the mining will be concentrated only in the mining area only. Not much disturbance in respect of fauna, flora and human settlement of the villages. The impact of mining activity on the population will be insignificant. Hence, Rehabilitation of settlements is not anticipated under this project as it will not be required. Thus R&R Action Plans not proposed.

The project proponent will help in uplifting the poor section of the society as part of CSR activity by undertaking social welfare programs. The Project proponent contributes 2.5% of profit towards CSR activities. This project will have a positive impact on the socio economic as it will provide considerable employment to the families in the nearby villages. Improved health care facilities are expected to come-up in the area for catering to the health needs of the miners. The impact of mining on the civic amenities will be substantial after the commencement of mining activities. The local people who are currently depending on forest and agriculture will have new avenue from the mine.

7.4 Detail study of Rainwater harvesting

7.4.1 Rain water harvesting after the completion of proposed project of Thiru. B. Karthik Rough Stone and Gravel Quarry

I.	Total Pit Area	= 1054m ²
II.	Annual rainfall of the area	= 0.943 m
III.	Total rainwater available to store in pit area	= 993.9 m ³
IV.	Total volume of quarried pit	= 33728 m ³

Since the rainwater directly getting stored in the quarried pit, the runoff will not take place. The Quarried Pit will be act as **Artificial Ground Water Recharge Pond**. After the rainwater getting stored in quarried pit, the water slowly infiltrates into the ground and reaches the ground water table. This will greatly increase the ground water table around the lease area.

By electrical resistivity survey it is found that there is massive rock formation from 32m bgl. So, the infiltration rate of rain water is very less. If the rain water stored in pit for long period the evaporation loss will take place.

Meyer's Formula (1915) is used to find the loss of water in pit due to natural evaporation process.

Meyer's Formula (1915)

$$E_L = K_M (e_w - e_a) (1 + u_9/16)$$

Where

- E_L = Evaporation Rate (mm/day)
- e_w = the saturation vapor pressure at the water temperature in mm of mercury
- e_a = the actual vapor pressure in the air in mm of mercury
- u_9 = monthly mean wind velocity in km/h at about 9 m above ground
- K_M = coefficient accounting for various other factors with a value of 0.36 for large deep and 0.50 for small shallow waters.

Here,

e_w = 31.83 mm of Hg (considered average temperature in Tirupur district during May month of 2025)

e_a = 0.59 x 31.83 = 18.7 mm of Hg.

u_1 = 15.12 km/hr

u_9 = 20.69 km/hr

Substitute the above parameters in Meyer's equation,

$$E_L = 0.36(26.75 - 17.4) (1 + 10.84/16)$$

$$E_L = 6.17 \text{ mm/day}$$

$$\text{Evaporated Volume per day} = 1054 \times 0.00617 = 6.50 \text{ m}^3/\text{day or } 6.5 \text{ KLD}$$

The total quantity of rain water to be stored in quarried pit is 1054 m^3 . The evaporation rate of water per day is 6.5 m^3 based on the average temperature during May month in Tirupur district. It takes nearly 4 to 6 months for the complete evaporation of water. Before that the stored water will be used to irrigate the crop around the quarry area.

Other benefits are that the water will be used for the domestic purposes after the water properly treated by Sedimentation-Filtration processes. A higher quantity of about 20 liters **per capita per day** should be assured to take care of basic hygiene needs and basic food hygiene.

Thereby this existing quarry benefits the daily needs of water to so many families around the quarry area for every year. This is very important **positive impact** of the proposed ordinary stone quarry of **Thiru. B. Karthik**.

7.4.2 Rain water harvesting after the completion of proposed project of Thiru. V.P. Ramasamy Rough Stone and Gravel Quarry

I.	Total Pit Area	= 1120 m^2
II.	Annual rainfall of the area	= 0.943 m
III.	Total rainwater available to store in pit area	= 1056.16 m^3
IV.	Total volume of quarried pit	= 47040 m^3

Since the rainwater directly getting stored in the quarried pit, the runoff will not take place. The Quarried Pit will be act as **Artificial Ground Water Recharge Pond**. After the rainwater getting stored in quarried pit, the water slowly infiltrates into the ground and reaches the ground water table. This will greatly increase the ground water table around the lease area.

By electrical resistivity survey it is found that there is massive rock formation at from 42m bgl. So, the infiltration rate of rain water is very less. If the rain water stored in pit for long period the evaporation loss will take place.

Meyer's Formula (1915) is used to find the loss of water in pit due to natural evaporation process.

Meyer's Formula (1915)

$$E_L = K_M (e_w - e_a) (1 + u/16)$$

Where

- E_L = Evaporation Rate (mm/day)
- e_w = the saturation vapor pressure at the water temperature in mm of mercury

- e_a = the actual vapor pressure in the air in mm of mercury
- u_9 = monthly mean wind velocity in km/h at about 9 m above ground
- K_M = coefficient accounting for various other factors with a value of 0.36 for large deep and 0.50 for small shallow waters.

Here,

e_w = 31.83 mm of Hg (considered average temperature in Tirupur district during May month of 2025)

e_a = $0.59 \times 30.5 = 18.7$ mm of Hg.

u_1 = 15.12 km/hr

u_9 = 20.69 km/hr

Substitute the above parameters in Meyer's equation,

$EL = 0.36 (30.5 - 17.9) (1 + 20.69/16)$

$EL = 6.17$ mm/day

Evaporated Volume per day = $1120 \times 0.00617 = 7 \text{ m}^3/\text{day}$ or 7 KLD

The total quantity of rain water to be stored in quarried pit is 1120 m^2 . The evaporation rate of water per day is 7 m^3 based on the average temperature during May month in Tirupur district. It takes nearly 4 to 6 months for the complete evaporation of water. Before that the stored water will be used to irrigate the crop around the quarry area.

Other benefits are that the water will be used for the domestic purposes after the water properly treated by Sedimentation-Filtration processes. A higher quantity of about 20 liters **per capita per day** should be assured to take care of basic hygiene needs and basic food hygiene.

Thereby this existing quarry benefits the daily needs of water to so many families around the quarry area for every year. This is very important **positive impact** of the proposed ordinary stone quarry of **Thiru. V. P. Ramasamy**.

7.5 Plastic waste Management Plan

This is ordinary stone and gravel quarry. So, the project does not need any plastic related material for quarry operations. The plastic materials will be used by the employee and labours in the form of carry bags, water bottles, etc. To avoid such situations the employees and labours will be strictly instructed to avoid the plastic materials in the lease area. Moreover, they will be advised to use cloth bags, jute bags and bring the food by Steel Tiffin box.

Water will be provided by the project proponent for both drinking and domestic purposes. So, the dustbins will not be needed in the quarry. To manage the unavoidable

situations, Dustbins will be placed in the quarry for both decompose and non-decompose waste separately of Municipal solid waste. The collected waste will be disposed periodically as instructed by TNPCB. The board with the instruction “**Avoid plastics**” is placed in the two sides of quarry and awareness program will be conducted to the labours monthly once.



CHAPTER – 8: PROJECT BENEFITS

Mining activity will help in improving the socio-economic benefits in areas like employment, communication and infrastructure development etc.

8.1 Physical Infrastructure

The ordinary stone and gravel quarry project located in Iduvai Village of Tirupur District has well established roads, communications and other facilities. The impact on the civic amenities will be substantial after increasing the mining capacity.

The following physical infrastructure facilities will further improve due to mine.

- ❖ Afforestation
- ❖ Road Transport facilities
- ❖ Communications
- ❖ Housing facilities
- ❖ Water supply and sanitation
- ❖ Medical, Educational and social benefits will be made available to the nearby Civilian population in addition to the workmen employed in the mine.

Under plantation program, it is suggested to develop green belt further all along the boundary of mining lease area. The species to be grown in the areas will be dust tolerant and fast-growing species so that a permanent green belt is created. Apart from the green belts and aesthetic plantation for eliminating fugitive emission and noise control, all other massive plantation efforts will be executed with the assistance of experts and cooperation of the local community.

8.2. Social Infrastructure

The mining activity will create rural employment. It has been observed that local people mainly depend upon agricultural, where the income is irregular and low. The mining activity in the region will have positive impact on the social economic condition of the area by way of providing employment to the local in-habitants; wages paid to them will increase the per capita income, housing, education, medical and transportation facilities, economic status, health and agriculture by improving the life style of the people. A major part of the labour force will be mainly from local villagers who are expected to engage themselves both in agriculture and mining activities. Part of the royalty is given to local bodies by the State Govt. for the welfare and development of the village, District Mineral Fund @ 30% of the Royalty shall be given to the Department of Geology and Mining, Karur District. The State Government will also benefit directly from the mine, through increased revenue from royalties, excise duty and etc.,

8.3 Employment Potential

The two-quarry proponent employed about 53 persons for carrying out the mining operations of which 5 are skilled, 7 semi-skilled, 35 unskilled workers and 8 Management and supervisory staff personnel. In addition, there will be indirect employment to many more people in the form of contractual jobs like construction of infrastructural facilities, transportation of ordinary stone and gravel to destinations, supply of goods and services to the mine and other community services, etc., the local population will have preference to get an employment. The economic status of the local people will be enhanced due to mining project.

8.4 Other tangible benefits

8.4.1 Corporate Social Responsibility

Corporate Social Responsibility (CSR) refers to voluntary actions undertaken by the project proponent either to improve the living conditions (economic, social, environmental) of local communities or to reduce the negative impacts of mining activity. By definition, voluntary actions are those that go beyond legal obligations, contracts, and license agreements.

CSR programs usually invest in infrastructure (potable water, electricity, schools, roads, hospitals, hospital equipment, drainage repairs, etc.), building social capital (providing high-school and university education, providing information on HIV prevention, workshops on gender issues, information on family planning, improving hygiene, etc.), and building human capital (training local people to be employed by the mining enterprise or to provide outsourced services, promote and provide skills on micro business, aquaculture, crop cultivation, animal rearing, textile production, etc.)

8.4.2 CSR activities

The following activities which may be included by companies in their Corporate Social Responsibility Policies are notified as CSR activities under Schedule VII ((See section 135) of the Companies Act 2013:

- i. Eradicating extreme hunger and poverty;
- ii. Promotion of education;
- iii. Promoting gender equality and empowering women;
- iv. Reducing child mortality and improving maternal health;
- v. Combating human immunodeficiency virus, acquired immune deficiency syndrome, malaria and other diseases;
- vi. Ensuring environmental sustainability;

- vii. Employment enhancing vocational skills;
- viii. Social business projects;
- ix. Contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women; and
- x. Such other matters as may be prescribed.

The Board of every company referred to in sub-section (1), shall ensure that the company spends, in every financial year, at least 2% of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy. Provided that the company shall give preference to local area and areas around it, where it operates for spending the amount earmarked for Corporate Social Responsibility activities. Provided further that if the company fails to spend such amount, the Board shall report under clause (o) of sub-section (3) of section 134, specify the reasons for not spending the amount.

Explanation: For the purposes of this section “average net profit” shall be calculated in accordance with the provisions of section 198.

8.4.2.1 CSR Cost Estimation for proposed project of Thiru. B. Karthik (an Extent of 2.05.0 Ha), Rough stone and gravel quarry.

CSR activities will be taken up in the nearby villages mainly contributing to education, health, training of women self-help groups and contribution to infrastructure etc., CSR budget is allocated as 2.5% of the profit. (As per the Companies Act, 2013 and CSR Rules, 2014)

8.4.2.2 CSR Cost Estimation for proposed project of Thiru. V. P. Ramasamy (an Extent of 1.59.0 Ha), Rough stone and gravel quarry.

CSR activities will be taken up in the nearby villages mainly contributing to education, health, training of women self-help groups and contribution to infrastructure etc., CSR budget is allocated as 2.5% of the profit. (As per the Companies Act, 2013 and CSR Rules, 2014)

Under this programme, the project proponents will take-up following activities for social and economic development of villages through local panchayat.

- ✚ Employment to eligible persons during operational phase of the mine
- ✚ Conducting Medical Camps

- ✚ Infrastructure Development like repair of roads, renovation of ponds, rainwater harvesting schemes, etc.,
- ✚ Financial grant to the existing educational institutions for development of physical infrastructures
- ✚ Training for Self-Employment
- ✚ Plantation in villages and all along roads.
- ✚ Providing solar lamps to nearby schools and villages by going eco-friendly.

8.4.3 Corporate Environment Responsibility (CER) for proposed project of Thiru. B. Karthik (an Extent of 2.05.0 Ha), Rough Stone and Gravel Quarry.

CER Activity	Project Cost (Rs. In Lakhs)	CER Cost (Rs in Lakhs)
Developing Sanitary facilities and Library Facilities, RO Water supply system, tree plantation and environmental awareness sign Boards to Government High Secondary School, Iduvai Village.	59.69	5
Total Cost Allocation	59.69	5

8.4.4 Corporate Environment Responsibility (CER) for proposed project of Thiru. V. P. Ramasamy (an Extent of 1.59.0 Ha), Rough Stone and Gravel Quarry.

CER Activity	Project Cost (Rs. In Lakhs)	CER Cost (Rs. In Lakhs)
Developing Sanitary facilities and Library Facilities, RO Water supply system, tree plantation and environmental awareness sign Boards to Government High Secondary School, Iduvai Village.	44.03	5
Total Cost Allocation	44.03	5

CHAPTER – 9: ENVIRONMENTAL COST BENEFIT ANALYSIS

9.0 PROJECT COST

After making exhaustive study, it is considered that the mining project may be implemented.

a) Thiru. B. Karthik (2.05.0 Ha), Rough stone and gravel quarry.

Project cost for the proposed rough stone and gravel quarry over an area of 2.05.0 Ha falling in Village Iduvai, District Tirupur is Rs. 59,69,000/- and EMP Cost is Rs. 3,80,000/-.

This project provides direct employment to 31 people and indirect employment to nearly 20 people. In a family 4 persons (average), totally 200 persons will get benefit because of the project.

b) Thiru. V.P. Ramasamy (an Extent of 1.59.0 Ha), rough stone and gravel quarry.

Project cost for the proposed rough stone and gravel quarry over an area of 1.59.0 Ha falling in Village Iduvai, District Tirupur is Rs. 44,03,000/- and EMP Cost is Rs. 3,80,000/-

This project provides direct employment to 22 people and indirect employment to nearly 20 people. In a family 4 persons (average), totally 200 persons will get benefit because of the project.

The quarrying activity will definitely benefit the people (directly as well as indirectly) as follows

- ✚ It is mainly used in fencing stone and building Stone which are mainly used in fencing and building basement purpose. So, surrounding dealer and building contractor get Ordinary stone easily with less transportation cost.
- ✚ The Management will ensure good production and in turn there will be good revenue to the Government of Tamil Nadu and Government of India through taxes. The industry is an asset to the nation.
- ✚ At the end of the project the pit will act as rain water harvesting tank which is useful for agricultural purpose. Thereby it will increase the survival of people around the quarry.

CHAPTER - 10: ENVIRONMENTAL MANAGEMENT PLAN

The **Environment Management Plan (EMP)** is required to ensure sustainable development in the study area. Hence it needs to be a comprehensive plan for which the industry, Government, regulating agencies likes Pollution Control Board working in the region and more importantly the population of the area need to extend their co-operation and contribution.

It has been evaluated that the project area will not be affected significantly due to mining activity. Mitigation measures at the source level and an overall Management Plan at the site level are elicited so as to improve the surrounding environment.

Table No. 10.1: Environmental Management Plan

S. No	Parameters	Mining Activity	Mitigation measures
1	Air Environment	Drilling	○ Dust extractor or wet drilling to be followed to control dust at source of emission ○ Use of Sharp drill bits for drilling holes and charging the holes by using optimum charge and using time delay detonator
		Blasting	○ Regular water sprinkling on blasted heaps at regular intervals will help in reducing considerable dust pollution
		Loading	○ Water sprinkling be done before loading by making it moist
		Transportation	○ Water sprinklers along the sides of haul road shall be fixed to control fly of dust while transporting minerals and waste ○ Overloading will be prevented ○ Trucks/Dumpers covered by tarpaulin covers
		DG Sets	○ DG sets will be used only during power failure ○ Adequate stack height for DG sets will be provided as per CPCB norms
		General measures	○ Avenue trees along roads around ML boundary shall be planted as per the norms of MoEF&CC to control fly of dust. ○ Labours engaged in such dust prone areas should be provided with safety devices like ear muff, mask, and goggles as per the MMR, 1961 amendments and circulars of DGMS. ○ Regular health check-up of workers and nearby villagers in the impacted area should be carried out and also regular occupational health assessment of employees should be carried out as per the Factories Act ○ Ambient Air Quality Monitoring will be conducted on regular basis to assess the quality of ambient air.
2	Water Environment	Surface water	○ Wastewater discharge from mine if any will be treated in settling tanks before using for dust suppression and tree plantation purposes.

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

		Ground water	○ The mining activity will not intersect the ground water table ○ De silting will be carried out before and immediately after the monsoon season
		Stormwater	○ Pit will be used for Storage of rainwater ○ Rain water will be collected in sump in the mining pit and will be allowed to store and pumped out to surface setting tank of 15 m x 10m x 3m to remove suspended solids if any. This collected water will be judiciously used for dust suppression onwards and such sites where dust likely to be generated and for developing green belt. ○ The proponent will collect and judiciously utilize the rainwater as part of rain water harvesting
		General measures	○ Regular monitoring and analyzing the quality of water
3	Noise Environment	Drilling	○ Limiting time exposure of workers to excessive noise
		Blasting	○ Carrying out blasting only during day time and not on cloudy days ○ Noise levels will be controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes. ○ Providing proper noise proof enclosure for the workers separated from the noise source and noise prone equipment
		Transportation	○ Proper and regular maintenance of vehicles, machinery and other equipments. ○ The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments. ○ Speed of trucks entering or leaving the mine will be limited to moderate speed to prevent undue noise from empty vehicles. ○ Adequate silencers will be provided in all the diesel engines of vehicles. ○ Minimum use of horns and speed limit of 10 km/hr in the village area. ○ It will be ensured that all transportation vehicles carry a valid PUC

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

			Certificates
		General measures	○ Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas ○ Provision of Quiet areas, where employees can get relief from workplace noise. ○ The development of green belts around the periphery of the mine to attenuate noise. ○ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects.
4	Vibration	Blasting	○ No deep holes blasting envisaged. ○ Small dia shot holes are used for breaking boulders. ○ Specific charge pattern has to be designed by proper trial vibration studies with varying charge ratios. ○ If the vibration still exceeds the limit a long Trench to a depth of 6m may cut in the direction of wave's movement to break longitudinal waves which travel close to surface, preferably near mine buffer zone ○ In spite of all measures periodical testing of vibration and noise using approved seismograph by DGMS has to be followed as a part of Environmental monitoring
5	Soil Environment	Topsoil	○ Humus top soil shall be preserved for reuse in afforestation and agriculture ○ Top soil should not be mixed with other waste or reject materials. It should be conserved by judicious utilization in the mine premises ○ Garland drains will be provided around the mine and dumps to arrest any soil from the mine area being carried away by the rain water. This will also avoid the soil erosion and siltation in the mining pits and maintaining the stability of the benches
6	Waste Dump	Stabilization of	○ The rejects\ waste dump shall be properly terraced in to 1.5m benches

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

		Dumps	with proper repose angle and then the top soil shall be spread over the dumps and slope to make them humus for some time, after the soil suitable for water retention trees will be planted at the top, slope and toe of the stabilized dumps to form vegetation. ○ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse ○ Dump should be terraced for every 5m height and stabilized
7	Plantation	Mine lease boundary and waste dump	○ Provision of green belt all along the periphery of the lease area for control of dust and to attenuate noise ○ Stabilization of Dump with plantation ○ It is strongly recommended that the loss of plant in each year will be counted and again planted in subsequent plantation. ○ The plant should be planted taken from nursery, where the survival rate is high.
8	Land Environment		○ The restoration of the degraded land would cover backfilling and terracing with the overburden / wastes and surfacing the same with top soil. ○ Provision of Garland drainage around the dumps ○ Fast growing trees and other native shrubs would be planted to stabilize the reclaimed land ○ Appropriate measures will be taken for Green belt development. ○ The rain water will be stored in the pit which will recharge the ground water as a part of rain water harvesting scheme for irrigating the nearby agricultural lands.
9	Socio Economic		○ Good maintenance practices will be adopted for machinery and equipment, which will help to avert potential noise problems. ○ Green belt will be developed in and around the project site as per

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

		Central Pollution Control Board (CPCB) guidelines. ○ Drilling, blasting etc., at specified location will be followed with proper schedule. ○ Appropriate air pollution control measure will be taken so as to minimize the environmental impact within the core zone. ○ An emergency preparedness plan will be prepared in advance, to deal with firefighting, evacuation and local communication. ○ For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices has been provided which meet 'BIS' (Bureau of Indian Standards). ○ As a part of CSR activities, community welfare activities will be undertaken by the proponent which leads to socio economic development
10	Occupational Health	○ First-aid facilities as per provisions under Rule (44) of Mines Rules 1955 ○ Initial and Periodical medical examination shall be conducted for the employees under Rule 29B & 45 (A). ○ Insurance will be taken in the name of the labourers working in the mines ○ Workers involved in mining work shall be provided protective equipment's such as Thick Gloves, Goggles, ear plugs, safety boot wears, etc.,

10.1 Description of the administrative aspects of Thiru. B. Karthik (2.05.0 Ha), Rough stone and gravel quarry ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of EIA

Regular monitoring network to maintain environmental quality will be implemented.

Table No. 10.2: EMP Budget for Plan period

S. No	Description	Budget (Rs.)
1.	Personal protective equipment	75,000
2.	Environmental Monitoring	2,00,000
3.	Occupation Health	75,000
4.	Green Belt & Dust suppression	50,000
	Total (Rs.)	4,00,000

Table No. 10.3: Budget Allocation for Mine Closure Plan as per ToR

S. No	Description	Budget (Rs.)
1.	Parapet wall around dump (1m = Rs 500)	1,00,000
2.	Fencing around mines	2,00,000
3.	Making Pit for pond after the activity of mines	50,000
4.	Green belt development	1,00,000
	Total (Rs.)	4,50,000

Apart from the afforestation plan given in Mining plan, the above table depicts the budget allocated for additional green belt development as specified by ToR.

10.2 Description of the administrative aspects of Thiru. V. P. Ramasamy (1.59.0 Ha), Rough stone and gravel quarry ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of EIA

In order to maintain the environmental quality within the standards, regular monitoring network to maintain environmental quality will be implemented.

Table No. 10.4: EMP Budget for Plan period

S. No	Description	Budget (Rs.)
1.	Personal protective equipment	75,000
2.	Environmental Monitoring	1,50,000
3.	Occupation Health	1,00,000
4.	Green Belt & Dust suppression	1,50,000
	Total (Rs.)	4,75,000

Table No. 10.5: Budget Allocation for Mine Closure Plan as per ToR

S. No	Description	Budget (Rs.)
1.	Parapet wall around dump (1m = Rs 500)	1,00,000
2.	Fencing around mines	1,50,000
3.	Making Pit for pond after the activity of mines	50,000
4.	Green belt development	1,00,000
	Total (Rs.)	4,00,000

Budget is allotted for additional green belt development as specified by ToR in addition to budget allotted for afforestation plan given in Mining Plan.

CHAPTER – 11: SUMMARY AND CONCLUSIONS

11.0 Introduction

The Applicants, Thiru. B. Karthik and Thiru. V.P. Ramasamy has applied for grant of permission for quarrying rough stone and gravel quarry over an extent of 2.05.0 Ha and 1.59.0 Ha in S.F.N: 277 and S.F. No: 286/1 (P) respectively located in Iduvai Village, Tirupur South Taluk, Tirupur District and Tamil Nadu for a period of 10 years and 5 years (From the date of execution).

The Deputy Director, Department of Geology and Mining, Tirupur has directed the applicants, Thiru. B. Karthik and Thiru. V.P. Ramasamy, vide his precise area communication letter Roc. No. 58/Kanimam/2023 dated 05.07.2024 and Roc. No. 712/Kanimam/2021 dated 05.07.2024 obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying lease to rough stone and gravel quarry in Iduvai Village, Tirupur South Taluk, Tirupur District and Tamil Nadu for the period of 10 years and 5 Years (From the date of execution). In continuation, Deputy Director, Department of Geology and Mining, Tirupur has directed the two applicants, Thiru. B. Karthik and Thiru. V.P. Ramasamy to get mining plan is approved vide letter No. 58/Kanimam/2023 dated 13.08.2024 and Roc. No. 712/Kanimam/2021 dated 13.08.2024 and obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying lease to rough Stone & Gravel quarry in Iduvai Village, Tirupur South Taluk, Tirupur District and Tamil Nadu for the period of 10 years and 5 years (From the date of execution).

The mining plan for rough stone and gravel quarry of two applicants has been prepared as per the Deputy Director's Precise area communication letter under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying rough stone and gravel and it has been approved by Deputy Director, Department of Geology and Mining, Tirupur.

As per the cluster letter issued by Deputy Director, Department of Geology and Mining, Tirupur vide Rc.No.58/Mines/2023, dated 13.08.2024 for Thiru. B. Karthik (2.05.0 Ha) and vide Rc.No.712/Mines/2021 dated 13.08.2024 for Thiru. V.P. Ramasamy (1.59.0 Ha) the lease area of above said 9 applicants comes in cluster of 500m radius. The total area of cluster is 15.02.0 Ha. The extents of lease area of all individual as per cluster letter are given below.

Proposed Quarries

1. Thiru.B.Karthik – 2.05.0 Ha
2. Thiru. V.P.Ramasamy – 1.59.0 Ha
3. Thiru.K.Eswaran – 1.59.50 Ha

Existing Quarries

1. Thiru. K.Balasubramaniam – 1.40.0 Ha
2. Mrs. B. Radhika – 0.89.0 Ha

Abandoned Quarries

1. Thiru.A.Kandasamy - 1.20.0 Ha
2. Thiru. Silver C. Venkatachalam – 2.29.0 H
3. Thiru. P. E. Thangavel - 2.49.0 Ha
4. Thiru. K. Balasubramaniam - 1.52.0 Ha

As the projects comes under B1(cluster) category, the four applicants made TOR application individually the PARIVESH website for carrying out EIA Studies for obtaining Environmental clearance. The details are given in below table 1.1.

Table No. 11.1: Details on Terms of Reference

S. No	Name of Proponent	ToR Application No	SEAC and SEIAA Meeting No	TOR letter No
1.	B. Karthik	SIA/TN/MIN/529 488/2025 Dated 15.03.2025.	565 th SEAC-II meeting, dated 15.05.2025 and 833 rd SEIAA meeting dated 03.06.2025.	Lr. No: TO25B018TN5138034 N Dated: 15.06.2025
2.	V.P. Ramasamy	SIA/TN/MIN/528 542/2025 dated 10.03.2025	556 th SEAC meeting, dated 25.04.2025 and 828 th SEIAA meeting dated 26.05.2025	Lr. No: TO25B018TN5952127 N Dated: 30.05.2025

In TOR letters, it is mentioned that public hearing needs to be conducted for the proposed rough stone and gravel quarry of two project proponents for obtaining EC. As per MOEF&CC SO 141 (E) dated 15.01.2016-Appendix XI, there shall be one public consultation for entire cluster after which the final Environmental Impact Assessment Report or Environmental Management Plan report for the cluster shall be prepared. Based on the OM issued by MOEF & CC, the combined Draft EIA/EMP report has been prepared for the two quarries in the cluster of 15.02.0 Ha for conducting public hearing. The points raised in the

public hearing and the commitments of the project proponent will be given detail in the final EIA Report which will be submitted to SEAC/SEIAA, TN for obtaining environmental clearance.

11.1. Identification of Project and Project Proponent

Table No. 11.2: Details on Project and Project Proponent

A. Proposed Projects to Conduct Public Hearing	
1. Thiru. B. Karthik	
Particulars	Details
Address of the Project Proponent	Thiru. B. Karthik 3/563, Kuttai Thottam, 63, Velampalayam Palladam Taluk Tirupur District 641663 Mobil No: 9842284083 Email id: karthikgokul999@gmail.com
Lease Area	2.05.0 Ha (Patta Land)
Site Location	S.F. No: 277, Iduvai Village, Tirupur South Taluk, Tirupur District, Tamil Nadu.
Geographical Co-ordinates	Latitude: 11° 03'52.61" N to 11° 03'58.68" N Longitude: 77°16'52.50" E to 77°16'58.19" E.
Toposheet No.	58E/08
Elevation	Elevation of the area is 367m above MSL.
Precise Area Communication	Roc.No.58/Kanimam/2023, dated 05.07.2024
Period of Lease	10 years from the date of execution.
Mining Plan Approval Details	Mining plan approved by DD, Dept of Geology and Mining Vide Roc. No.58/Mines/2023, dated 13.08.2024
AD Cluster letter	Rc. No. 58/Mines/2023, dated 13.08.2024
2. Thiru. V. P. Ramasamy	
Particulars	Details
Address of the Project Proponent	Thiru. V. P. Ramasamy 2/697-A, Vivkananda Nagar Main Street, S.R. Nagar South, Mangalam Road Tirupur District- 641 687 Mobile No: 9965561626 Email: vprcrusher.office@gmail.com
Lease Area	1.59.0 Ha (Patta Land)
Site Location	S.F. No: 286/1 (P), Iduvai Village, Tirupur South Taluk, Tirupur District, Tamil Nadu.
Geographical Co-ordinates	Latitude: 11° 03'43.08" N to 11° 03'49.31" N

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

	Longitude: 77°16'50.81" E to 77°16'54.73" E.
Toposheet No.	58E/08
Elevation	Elevation of the area is 369m above MSL
Precise Area communication	Rc.No.712/Kanimam/2021 dated 05.07.2024
Period of Lease	5 years from the date of execution.
Mining Plan Approval Details	Mining plan approved by DD, Dept of Geology and Mining Vide Rc.No.712/Mines/2021 dated 13.08.2024
AD Cluster letter	Rc. No. 712/Mines/2021 dated 13.08.2024

Table No. 11.3: Land Particulars

1. Thiru. B. Karthik					
District & State	Taluk	Village	S.F. No.	Area (Ha)	Ownership/ Occupancy
Tirupur & Tamil Nadu	Tirupur South	Iduvai	277	2.05.0 Ha	Patta land
Total				2.05.0 Ha	
2. Thiru. V. P. Ramasamy					
District & State	Taluk	Village	S.F. No.	Area (Ha)	Ownership/ Occupancy
Tirupur & Tamil Nadu	Tirupur South	Iduvai	268/1 (P)	1.59.0 Ha	Patta land
Total				1.59.0 Ha	

11.2 Scope of the Project

The proposal for Environmental Clearance of rough stone and gravel of Thiru. B. Karthik, (2.05.0 Ha) and Thiru. V.P. Ramasamy (1.59.0 Ha) requires EIA/EMP Report as per respective Terms of Reference for conducting public hearing and obtaining for environmental clearance from SEAC/SEIAA.

11.3 Environmental Settings and Mining Details

Table No. 11.3: Environmental Settings

Accessibility				
Nearest Village	MGR Nagar – 270 m - W			
Nearest Settlement	S. No	Village Name	Total population as per 2011 census	Distance with Direction
	1	MGR Nagar	5074	0.3 km-NW
	2	Iduvai	8751	1.2 km-NE
	3	Velampalayam	3207	1.8 km -SW
	4	Chinnakalipalayam	847	0.5 km- SE

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Nearest Town	Tirupur- 7 km - NE
Nearest Railway station	Tirupur Railway Station-7.9 km-NE
Nearest Airport	Coimbatore International Airport – 25.2 km - SW
Environmental Sensitiveness	
Interstate Boundary	Tamil Nadu –Kerala Interstate boundary – 53 Km (SW)
Coastal Zone	Arabian sea – 149.0 km –W
Reserve Forest	Nil within 25 km radius. The proposed projects site does not attract Forest Conservation Act, 1980.
Wildlife sanctuary	Nil within 10km radius. The Proposed projects site does not the Wildlife (Protection) Act, 1972.
Water bodies	1. Canal – 110m - West 2. Andipalayam Lake - 4.40 km- NE 3. Noyyal River - 4.5 km- North 4. Samalapuram Lake - 8.2km- NW
Defense Installations	Nil within 10km radius
Critically Polluted area	Nil within 10km radius
Seismic zone	Zone-II, Moderate damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002

Table No. 11.4: Mining Details

Thiru. B. Karthik, Rough Stone and Gravel Quarry	
Method of Mining	Open cast -Mechanized mining
Geological resources	615000 m ³
Mineable reserves (100%)	172820m ³ of rough stone up to depth 32m and 22546m ³ of gravel up to a depth of 2m after leaving necessary safety distance from the lease boundary.
Production (100%)	Rough Stone – 172820m ³ for five years
Top soil	Gravel – 22546m ³ for three years.
Depth of Mining	32m bgl
Water Table	68-73 m bgl
Road design	1: 10 inside the pit and ramp 1:16 for transport
Overall Pit Slope	45°
Period of Lease	10 years (From the date of execution)
Project Cost	Rs 59.69 Lakhs
EMP Cost	Rs 3.80 lakhs
CER Cost	Rs.5 lakhs
Thiru. V. P. Ramasamy, Rough Stone and Gravel Quarry	
Method of Mining	Open cast -Mechanized mining

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Geological resources	3,87,721m ³
Mineable reserves (100%)	Rough stone - 95,843m ³
Production (100%)	Rough Stone – 95,843m ³ @ 100% recovery for five years
Top soil	-
Reject	-
Depth of Mining	42 m bgl.
Water Table	68-73 m bgl
Road design	1: 10 inside the pit and ramp 1:16 for transport
Overall Pit Slope	45°
Period of Lease	5 years from the date of execution
Project Cost	Rs. 44.03 Lakhs
EMP Cost	Rs. 3.80 lakhs
CER Cost	Rs.5 lakhs

11.4 Description of the environment

11.4.1 Base line environmental study

Collection of base line data is an integral part of the preparation of environmental impact assessment reports. The baseline monitoring study has been carried out during March 2025 – May 2025 to assess the existing environmental scenario in the area. For the purpose of EIA studies, mine lease area was considered as the cluster core zone and area outside the mine lease boundary up to 10km radius from the lease boundary was considered as buffer zone.

Table No. 11.5: Baseline Data

Particulars	Details	Standards
Meteorology (March 2025 – May 2025)		
Rainfall (Avg.)	114 mm	--
Temperature (Avg.)	20.5-35.3°C	--
Wind speed	2.4 m/s	--
Wind Direction	Predominantly from East to south west	
Ambient Air Quality (NAAQS)		
PM ₁₀	47-49 µg/m ³	100 µg/m ³
PM _{2.5}	26-29 µg/m ³	60 µg/m ³
SO ₂	13-16 µg/m ³	80 µg/m ³
NO _x	21-27 µg /m ³	80 µg/m ³
Noise Level (CPCB Standards)		
Day time (6:00 am - 10:00 pm)	Cluster Core zone – 40.9 dB (A) Buffer zone – 36.9- 40.2 dB (A))	Industrial Area Day Time - 75 dB (A) Residential Area Day Time – 55 dB (A)

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Night time (10:00 pm - 06:00 am)	Cluster core zone – 36.4 dB (A) Buffer zone – 33.0-35.4 dB (A)	Industrial Area Night Time – 70 dB(A) Residential Area Night Time – 45 dB (A)
Water Quality IS 10500:2012 (Desirable limits)		
pH	6.86-7.58	6.5 to 8.5
TDS	552-1752 mg/l	500 mg/l
Electrical conductivity at 25°C	937 – 2870 micromhos/cm	
Total Hardness as CaCO ₃	115 -488 mg/l	200 mg/l
Total suspended solids	4 -16 mg/l	IS 3025:P.17: 1984: R.2017
Chlorides Cl	58 – 228 mg/l	250
Total iron Fe	0.07- 1.54 mg/l	0.3mg/l
Sulfates SO ₄	26 -54 mg/l	200 mg/l
Soil Quality		
pH	6.98 - 7.74	Neutral to slightly alkaline
Bulk density	1.04 - 1.30 g/cc	Favorable physical condition for plant growth.
Hydro Geology		
Mining Depth	32 m bgl for Thiru. B. Karthik	
Mining Depth	42 m bgl for Thiru. V.P. Ramasamy	
Water Table	68 to 72 m bgl	

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

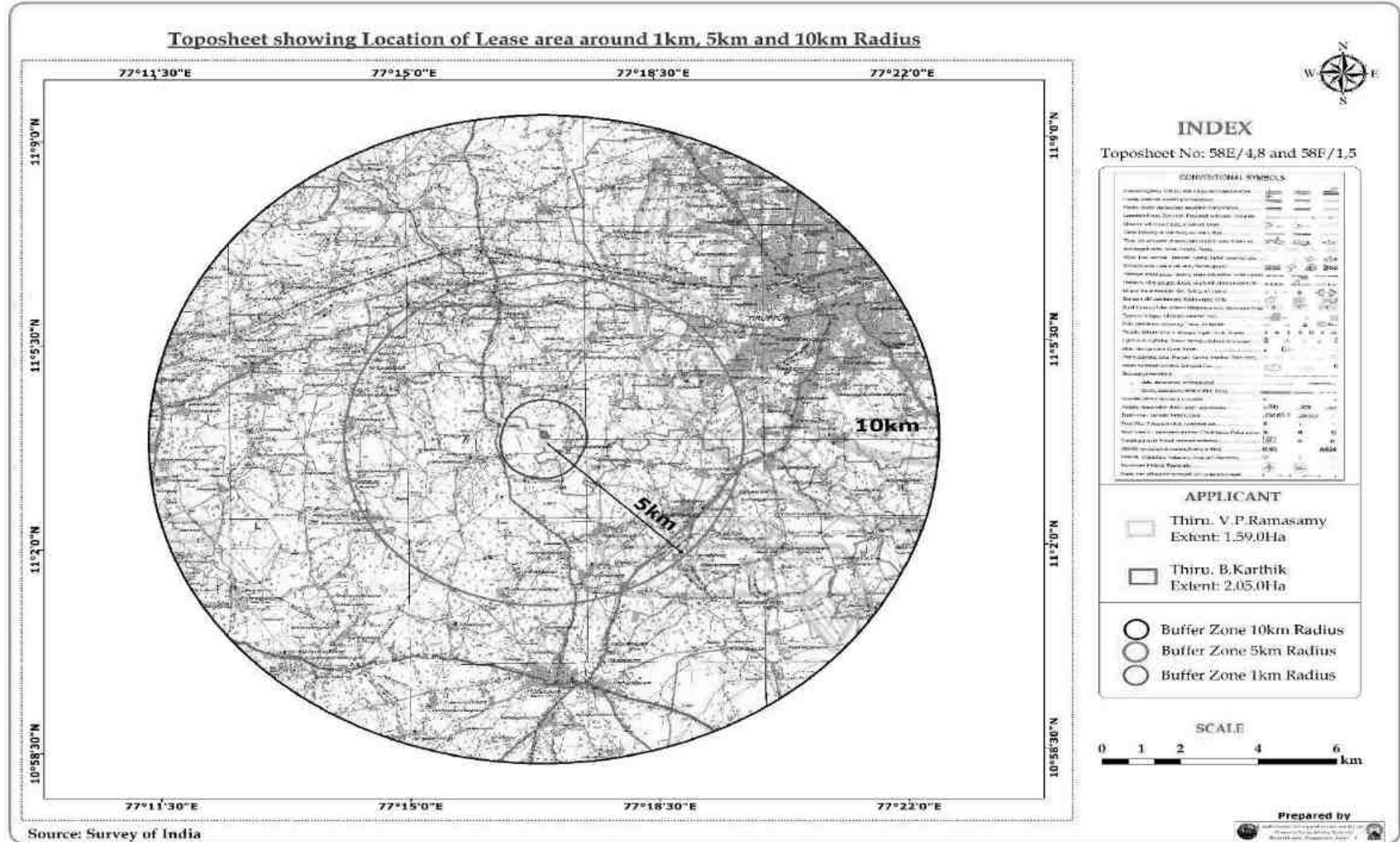


Fig No. 11.1: Toposheet showing location of the lease area

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tiruppur District

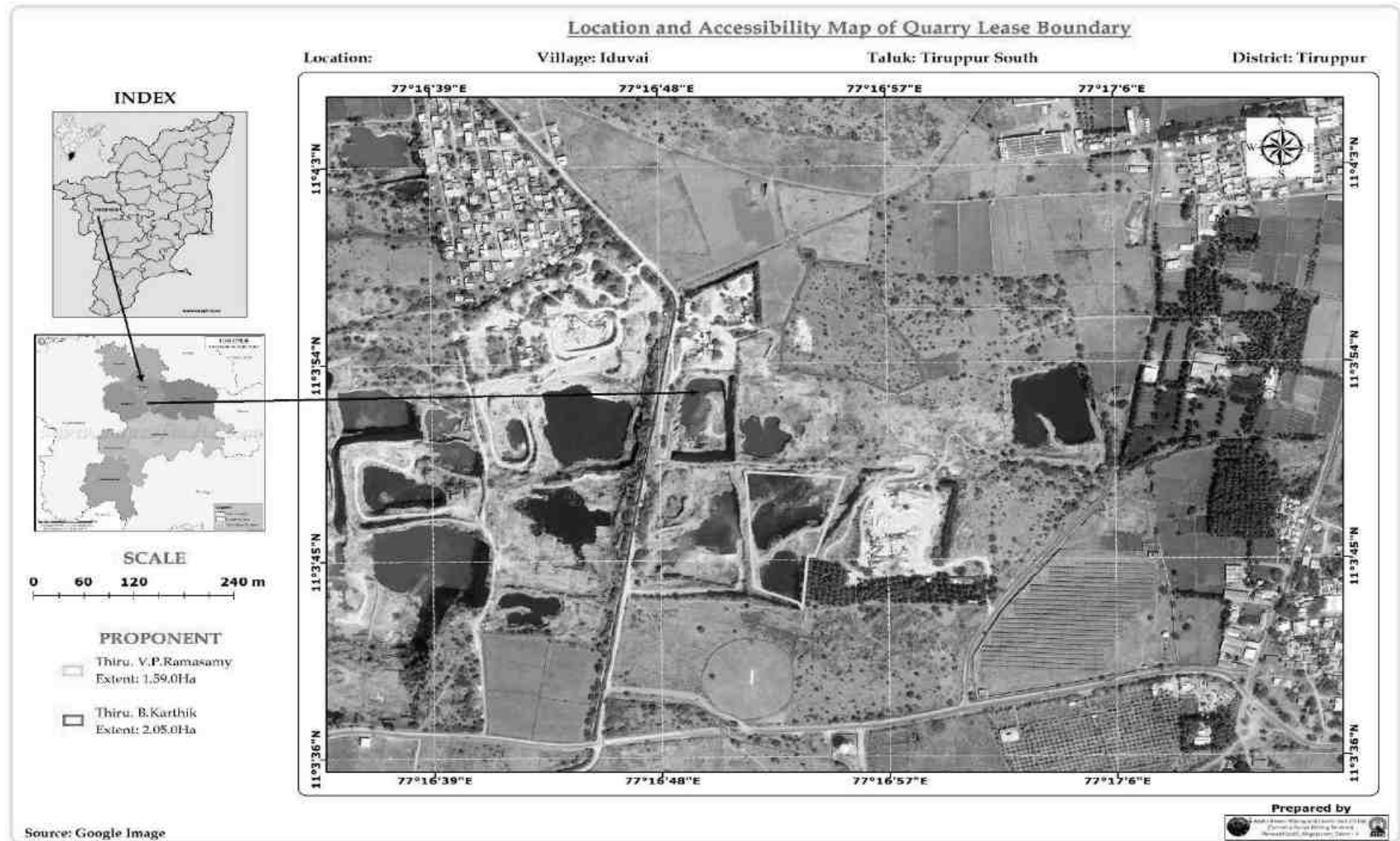


Fig No. 11.2: Map Showing the Location and Accessibility of Quarry Lease Boundary

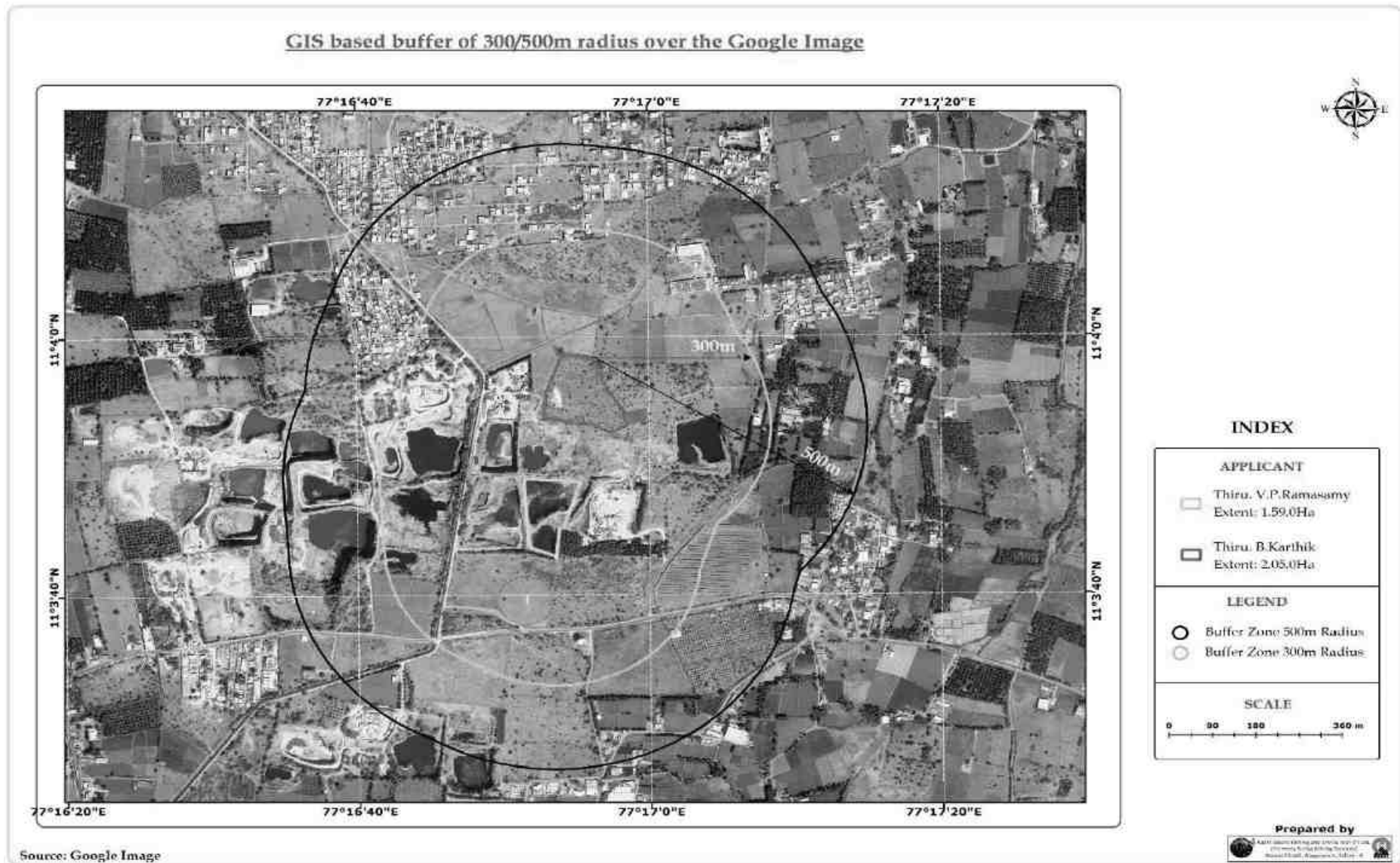


Fig No. 11.3: Google Earth Image showing 300m and 500m radius around lease area

11.5 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

11.5.1 Air Environment

The air borne particulate matter is the main air pollutant by opencast mining. The mining operation will be carried out by adopting mechanized methods which involves Jack Hammer drilling and blasting, excavation, loading and transportation.

AERMOD - Total predicted 24-h maximum GLC of PM₁₀ at project site for scenario 1 i.e. loading-unloading, transportation and scenario 2 i.e. Blasting was 80.42µg/m³ and 70.99µg/m³ respectively after superposition of base-line value 47µg/m³ over the incremental GLC 33.42µg/m³ and 23.99µg/m³ respectively due to combined impact of loading, unloading, open pit and transportation over the haul road and due to blasting. Therefore, the total predicted GLC of SO₂ and NO₂ will be 15 µg/m³ and 22 µg/m³ respectively. Maximum Impact of PM₁₀, SO₂ and NO₂ was observed close to the source within the lease area due to moderate wind speeds.

When all the quarries in the cluster area are working together the incremental GLC will be high and it may cross the prescribed limits by NAAQS. To overcome such situation, cluster committee should be formed and adopt the environmental management plan effectively as per EIA report.

11.5.2 Noise Environment

Noise pollution poses a major health risk to the mine workers. The sources of noise in the proposed open cast ordinary stone and gravel quarry are such as Drilling, Blasting, and during movement of vehicles.

The noise generated by the mining activity is dissipated within the cluster core zone. Although the noise level due to the operation of various mining machineries is 100dB(A), the noise level at different receptors is lower due to the distance involved and other topographical features adding to the noise attenuation. The calculated values at the receptors and resultant noise level are based on the mathematical formula as mentioned above.

The anticipated noise level in buffer villages due to mining activity is calculated by considering operation of one quarry only. **When all the quarries in the cluster work together in same time, the resultant noise level may increase up to 5 decibels.**

11.5.3 Ground Vibration

a) Thiru B. Karthik-2.05.0 Ha – Rough Stone and Gravel Quarry

The charge per blast of 56kg is well below the Peak Particle Velocity of 8mm/s as per the Director General of Mines Safety for safe level criteria through Circular No. 7 dated 29.08.

1997. Anyhow, the applicant ensures that carry out the blasting based on the site condition under the supervision of competent qualified statutory personnel employed. However, as per statutory requirement control measures will be adopted to avoid the impacts due to ground vibration and fly rocks due to blasting.

b) Thiru. V.P. Ramasamy- 1.59.0 Ha – Rough Stone and Gravel Quarry

The charge per blast of 35kg is well below the Peak Particle Velocity of 8mm/s as per the Director General of Mines Safety for safe level criteria through Circular No. 7 dated 29.08.1997. Anyhow, the applicant ensures that carry out the blasting based on the site condition under the supervision of competent qualified statutory personnel employed. However, as per statutory requirement control measures will be adopted to avoid the impacts due to ground vibration and fly rocks due to blasting.

11.5.4 Water Environment

Mining operations can affect groundwater quality in several ways. The most obvious occurs in the mining below the water table, either in underground workings or open pits. This provides a direct conduit to aquifers. Groundwater quality is also affected when waters (natural or process waters or wastewater) infiltrate through surface materials (including overlying waste or other material) into ground water. But this ordinary stone mine is devoid of any such impacts.

The impact due to mining on the water quality is expected to be insignificant because of no use of chemicals or hazardous substances during mining process. The mining activity will not intersect ground water table and it is 68-72m below ground level.

The WQI of the samples collected from the study area are given in table 4.26. It can be seen that the study area has water quality index value ranging from 38.16 to 85.36 which reflects the good water quality to very poor water quality status of the groundwater quality. The findings demonstrate the varying consistency of groundwater at different locations. All the groundwater samples under poor to unfit for drinking category; it may be due to the absorption of fertilisers, geological condition, channel water, solid waste, sewer drainage, septic tanks, and agricultural waste. The water should be treated by reverse osmosis to reduce dissolved solids and total hardness to the required rate.

11.5.5 Soil Environment

a) Thiru. B. Karthik - (2.05.0 Ha)

It will be dumped along mining lease boundary as earth bund and it will be utilized for green belt development within the lease area. No chemical or toxic elements will be used during mining activity. So, the health of soil in and around the quarry will not be affected.

b) Thiru. V.P. Ramasamy - (1.59.0 Ha)

It will be dumped along mining lease boundary as earth bund and it will be utilized for green belt development within the lease area. No chemical or toxic elements will be used during mining activity. So, the health of soil in and around the quarry will not be affected.

11.5.6 Biological Environment

There are no notified endangered species in the area, which may be affected due to the quarry activities; therefore, the biological environment will not have significant impact due to quarrying activity. The impact on the biological environment due to amount of dust generation is minimized by well-developed green belt in and around the quarry lease area.

11.5.7 Land Environment

Ordinary stone and gravel quarry project will result in disturbance of the land use pattern of the mine lease area. The impact on the topography in the form of changed landscape is unavoidable during mining activities like excavation, overburden dumping, soil extraction etc. Land requirement for the project has been assessed considering functional needs. So, reclamation of mined out land will be given due importance as a step for sound land resource management. There is no release of toxic elements into the ground. No adverse impact is anticipated on land use of buffer zone associated due to the mining activity, as all the activities will be confined within the project site. The mining operations will impact the land usage and land aesthetics of quarry lease area. The land use analyses show that the tree plantation was done around the mining lease area of Thiru. B. Karthik and Thiru. V.P. Ramasamy. The rate of plantation increases over a period of time due to quarry activity. At the end of the project, the quarried pit will be act as water storage pond. The stored water will be used for developing coconut, mango and groundnut plantation around the mining lease area. It will improve the livelihood of village people. The evaporation rate of the water in the pit is given detail in the report.

11.5.8 Socio Economic Environment

The quarrying activity will definitely increase the employment opportunity (directly as well as indirectly) in the project area. Some of these impacts would be beneficial. The expectation of the people of area is concerned towards employment, education, road and health facilities. The literacy rate may be increased with the economic benefits which may arise from the quarrying activities.

a) Thiru. B.Karthik (2.05.0 Ha) – Rough stone and gravel quarry

Direct Employment – 31 persons

Indirect Employment - 20 persons

b) Thiru V.P. Ramasamy (1.59.0 Ha) – Rough stone and gravel quarry

Direct Employment – 22 persons

Indirect Employment - 20 persons

Table No. 11.6: Environmental Management Plan

S. No	Parameters	Mining Activity	Mitigation measures
1	Air Environment	Drilling	✚ Dust extractor or wet drilling to be followed to control dust at source of emission ✚ Use of Sharp drill bits for drilling holes and charging the holes by using optimum charge and using time delay detonator
		Blasting	✚ Regular water sprinkling on blasted heaps at regular intervals will help in reducing considerable dust pollution
		Loading	✚ Water sprinkling be done before loading by making it moist
		Transportation	✚ Water sprinklers along the sides of haul road shall be fixed to control fly of dust while transporting minerals and waste ✚ Overloading will be prevented ✚ Trucks/Dumpers covered by tarpaulin covers
		DG Sets	✚ DG sets will be used only during power failure ✚ Adequate stack height for DG sets will be provided as per CPCB norms
		General measures	✚ Avenue trees along roads around ML boundary shall be planted as per the norms of MoEF to control fly of dust. ✚ Labours engaged in such dust prone areas should be provided with safety devices like ear muff, mask, goggles as per the MMR, 1961 amendments and circulars of DGMS. ✚ Regular health check-up of workers and nearby villagers in the impacted area should be carried out and also regular occupational health assessment of employees should be carried out as per the Factories Act ✚ Ambient Air Quality Monitoring will be conducted on regular basis to assess the quality of ambient air.

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2	Water Environment	Surface water	Wastewater discharge from mine will be treated in settling tanks before using for dust suppression and tree plantation purposes.
		Ground water	- The mining activity will not intersect the ground water table - Desilting will be carried out before and immediately after the monsoon season
		Storm water	- Pit will be used for Storage of rainwater - Rain water will be collected in sump in the mining pit and will be allowed to store and pumped out to surface setting tank of 15 m x 10m x 3m to remove suspended solids if any. This collected water will be judiciously used for dust suppression onwards and such sites where dust likely to be generated and for developing green belt. - The proponent will collect and judiciously utilize the rainwater as part of rain water harvesting
		General measures	Regular monitoring and analyzing the quality of water
3	Noise Environment	Drilling	Limiting time exposure of workers to excessive noise
		Blasting	- Carrying out blasting only during day time and not on cloudy days - Noise levels will be controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes. - Providing proper noise proof enclosure for the workers separated from the noise source and noise prone equipment
		Transportation	- Proper and regular maintenance of vehicles, machinery and other equipments. - The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments. - Speed of trucks entering or leaving the mine will be limited to moderate speed to prevent undue noise from empty vehicles.

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			✚ Adequate silencers will be provided in all the diesel engines of vehicles. ✚ Minimum use of horns and speed limit of 10 km/hr in the village area. ✚ It will be ensured that all transportation vehicles carry a valid PUC Certificates
		General measures	✚ Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas ✚ Provision of Quiet areas, where employees can get relief from workplace noise. ✚ The development of green belts around the periphery of the mine to attenuate noise. ✚ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects.
4	Vibration	Blasting	✚ Specific charge pattern has to be designed by proper trial vibration studies with varying charge ratios. ✚ Milli second detonators shall be used preferably 25–50ms per delay to control vibrations ✚ If the vibration still exceeds the limit a long Trench to a depth of 6m may cut in the direction of wave's movement to break longitudinal waves which travel close to surface, preferably near mine buffer zone ✚ In spite of all measures periodical testing of vibration and noise using approved seismograph by DGMS has to be followed as a part of Environmental monitoring
5	Soil Environment	Topsoil	✚ Humus top soil shall be preserved for reuse in afforestation and agriculture ✚ Top soil should not be mixed with other waste or reject materials. It should be conserved by judicious utilization in the mine premises ✚ Garland drains will be provided around the mine and dumps to arrest

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			any soil from the mine area being carried away by the rain water. This will also avoid the soil erosion and siltation in the mining pits and maintaining the stability of the benches
6	Waste Dump	Stabilization of Dumps	✚ The rejects\ waste dump shall be properly terraced in to 1.5m benches with proper repose angle and then the top soil shall be spread over the dumps and slope to make them humus for some time, after the soil suitable for water retention trees will be planted at the top, slope and toe of the stabilized dumps to form vegetation ✚ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse
7	Plantation	Mine lease boundary and waste dump	✚ Provision of green belt all along the periphery of the lease area for control of dust and to attenuate noise ✚ Stabilization of Dump with plantation ✚ It is strongly recommended that the loss of plant in each year will be counted and again planted in subsequent plantation. ✚ The plant should be planted taken from nursery, where the survival rate is high.
8	Land Environment		✚ The restoration of the degraded land would cover backfilling and terracing with the overburden / wastes and surfacing the same with top soil. ✚ Provision of Garland drainage around the dumps ✚ Fast growing trees and other native shrubs would be planted to stabilize the reclaimed land ✚ Appropriate measures will be taken for Green belt development. ✚ The rain water will be stored in the pit which will recharge the ground water as a part of rain water harvesting scheme for irrigating the nearby agricultural lands.

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Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

9	Socio Economic		✚ Good maintenance practices will be adopted for machinery and equipment, which will help to avert potential noise problems. ✚ Green belt will be developed in and around the project site as per Central Pollution Control Board (CPCB) guidelines. ✚ Drilling, blasting etc at specified location will be followed with proper schedule. ✚ Appropriate air pollution control measure will be taken so as to minimize the environmental impact within the core zone. ✚ An emergency preparedness plan will be prepared in advance, to deal with firefighting, evacuation and local communication. ✚ For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices has been provided which meet 'BIS' (Bureau of Indian Standards). ✚ As a part of CSR activities community welfare measures will be taken by Proponent through local Panchayat
10	Occupational Health		✚ First-aid facilities as per provisions under Rule (44) of Mines Rules 1955 ✚ Initial and Periodical medical examination shall be conducted for the employees under Rule 29B & 45 (A). ✚ Insurance will be taken in the name of the labourers working in the mines ✚ Workers involved in mining work shall be provided protective equipments such as Thick Gloves, Goggles, ear plugs, safety boot wears, etc...

11.6 Analysis of Alternatives

The quarrying site is dependent on the geology and mineral deposition of the area. Hence, this project is, mineral and site specific and no alternative site considered for this project.

11.7 Environmental Monitoring Program

Success of any environmental management programme depends upon the efficiency of the organizational set up responsible for the implementation of the programme. Regular monitoring of the various environmental parameters is also necessary to evaluate the effectiveness of the management programme. Environmental Monitoring Programme will be conducted for various environmental components as per conditions stipulated in the Environmental Clearance Letter issued by SEIAA & Consent to Operate issued by TNPCB.

Table No. 11.7: Post Project Environmental Monitoring Program

S. No	Environment Attributes	Location	Monitoring		Remarks
			Duration	Frequency	
1	Meteorology and Air Quality	Continuous monitoring weather station in core zone/ nearest IMD station	24 hours	Monthly Once	Wind speed, direction, Temperature, Relative humidity and Rainfall.
2	Air Pollution Monitoring – PM _{2.5} , PM ₁₀ , SO _x and NO _x	5 locations (One station in the core zone and at least one in nearby residential, area, one in the upwind, two station on the downwind direction and one in cross wind direction)	8 hours	Once in six months	Fine Dust Sampler and Respirable Dust Sampler
3	Water Pollution Monitoring	Mine effluents, Set of grab samples during pre and post monsoon for ground and surface water in the vicinity.	–	Once in six months	Phyiso–chemical, microbiological characteristics
4	Hydrogeology	Water level in open wells in buffer zone around 1km at specific wells	-	Once in six months	Water level monitoring devices may be used.
5	Noise	Mine Boundary, high noise generating areas within the lease and at the	24 hours	Monthly Once	Sound level meter

		nearest residential area			
6	Vibration	At the nearest habitation (in case of reporting)	–	During blasting operation	Digital Seismograph
7	Soil	Core Zone and Buffer zone (Grab samples)	–	Once in six months	Physical and Chemical characteristics

11.8 Project Benefits

The proponents Thiru. B. Karthik and Thiru. V.P. Ramasamy is very much conscious of his obligations to society at large. Under plantation programme, it is suggested to develop green belt further all along the boundary of the quarry lease area. Apart from the green belts and aesthetic plantation for eliminating fugitive emissions and noise control, all other massive plantation efforts will be executed with the assistance of experts and cooperation of the local community. The quarrying activity will create rural employment. In addition, there will be indirect employment to many more people in the form of contractual jobs like construction of infrastructural facilities, transportation of ordinary stone and gravel to destinations, sanitation, supply of goods and services to the quarry and other community services etc. The local population will have preference to get an employment. The proponent will help in socio economic development of the village by providing educational facilities to children, and welfare amenities like drinking water to school; road and medical facilities to villages and employment opportunities to nearby villagers. CSR budget is allocated as 2.5% of the profit.

11.9 Conclusion

As discussed, it is safe to mention that the project is not likely to cause significant impacts on the ecology and environment of the area, as adequate preventive measures will be adopted to contain the pollutants within permissible limits. The total operations shall be carried out with ease & minimum risk to the workers. The proposed Environmental Management Plan will keep the area in a safe environment with negligible impact on the environment. Plantation will substantiate the impact due to the quarrying activity. Quarrying activity will help in improving the socio-economic benefits in areas like employment, communication and infrastructure development.

CHAPTER - 12: DISCLOSURE OF CONSULTANTS ENGAGED

AADHI BOOMI MINING AND ENVIRO TECH (P) LTD, a QCI/NABET Accredited EIA Consultant Organization having its Registered Office at Salem and Branch at Porur, Chennai was promoted by a team of professional Geologists\ Mining\ Environment\ Civil\ Mechanical\ Chemical Engineers\ Scientists. The company has vast experience in various disciplines including Exploration and mining of minerals and was incorporated in 2002 in the name of Suriya Mining Services providing expert advice and solutions for clients' requirement in the field of Mineral prospecting, Exploration, Mining, Geo-technical, Techno economic Feasibility reports\evaluation, Mineral Engineering, Environment Impact Assessment (EIA), Environment Management Plan (EMP), Environment Monitoring and related liaison jobs like Environment Clearance, Wild life and Forest clearance from SEAC/SEIAA/NBWL/CRZ, MoEF& CC etc., of all accredited sectors.

12.1 Scope

- EIA & EMP for all accredited sectors and monitoring as per SPCB/CPCB/MoEF & CC
- Environment/ Wild life/ CRZ/ Forest Clearance
- Social Impact Analysis (SIA) and Eco-Biodiversity studies for Mine Closure Plan
- Remote Sensing & GIS including Satellite data processing, ASTER, DEM etc., for application in Forest, Agriculture, Disaster, Mineral Exploration, Environment Modelling, Town planning etc
- Geological Surveying, Mapping, Exploration and Project Management
- Geophysical, Geochemical & Geotechnical studies to locate concealed deposit\ formation including structural studies
- Noise and Vibration studies as per DGMS\MoEF&CC to design controlled blasting where inhabitations are located within 300m
- Mine Design and costing, selection of Machineries and Project Evaluation
- Statutory Mine Plans & Sections, Mining Plan and other mandatory projects
- Design and development of Mineral Beneficiation Plant including mineral separation studies.

12.2 Infrastructure

- Our Human resources are well expertise in all functional areas as per Ver. 3 of NABET\QCI. Our Hi-Tech ISO certified Office and Lab are accredited by NABL and MoEF&CC.

- And have latest field Investigation devices like Respirable and Fine Dust Samplers, Digital Seismograph, DDR3 Resistivity Meter, Echo sounder, DGPS, Total Station, Water level monitoring meters, GPS 62S, Sound Level Meter etc.

12.3 Disclosure of Consultant for EIA Study

The Applicants, Thiru. B. Karthik and Thiru. V.P. Ramasamy appointed Aadhi Boomi Mining and Enviro Tech (Private) Ltd, having its office at 3/216, K.S.V Nagar, Narasothipatti, Alagapuram, Salem – 636 004, Tamil Nadu, for preparation of EIA/EMP report for obtaining Environment Clearance from SEIAA/SEAC, Tamil Nadu.

Aadhi Boomi Mining and Enviro Tech (Private) Ltd has MOU with Ekdant Enviro Services (P) Ltd laboratory at Chennai and has own Laboratory named ABM Environmental and Analytical Laboratory, accredited by NABL for sampling and testing of air, water, noise and soil samples. Ekdant Enviro Services are recognized by the Ministry of Environment and Forests, Government of India under the relevant provision of Environment (Protection) Act 1986 and Accredited by NABL and NABET, Quality Council of India, New Delhi.

S. No.	Study	Consultants/LAB
1	Generation of Base Line Data	ABM Enviro Lab, Salem
2	Remote Sensing and Land use/Land cover Studies	Aadhi Boomi Mining & Enviro Tech P Ltd, Salem
3	Preparation of EIA and EMP Report	Aadhi Boomi Mining & Enviro Tech P Ltd, Salem

12.4 Declaration of Experts Involved in the EIA Report Preparation

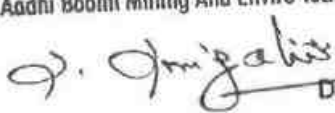
Names of the EIA coordinator, Functional Area Experts and other Team Members engaged and nature of consultancy rendered is provided in NABET Annexure –VII of EIA report. The multidisciplinary team comprises of Environmental Engineers, Geologists and Geographers who involved in preparation of Environmental Impact Assessment Report and Environment Management Plan for various functions like Air quality, Water quality, Noise levels, Soil Conservation, Hydro geology, Ecology and bio-diversity, Land use and Socio–Economics.

Declaration by Experts Contributing to the EIA/EMP

Declaration by experts contributing to the EIA/EMP for Rough Stone and Gravel Quarry of B.Karthik and V.P. Ramasamy over an Extent of 2.05.0 Ha and 1.59.0 Ha in Iduvai Village, Tirupur South Taluk, Tirupur District of Tamil Nadu. It is also certified that information furnished in the above EIA study are true and correct to the best of our knowledge. I, hereby, certify that I was a part of the EIA team in the following capacity that developed the EIA/EMP Report.

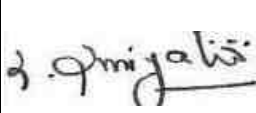
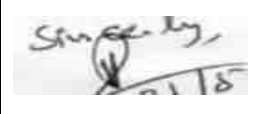
Name : Dr. S. Suriyakumar

Designation : EIA Coordinator

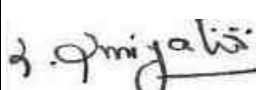
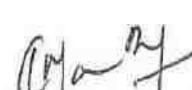
Signature : 
For Aadhi Boomi Mining And Enviro Tech (P) Ltd.,
Director

Period of Involvement : January, 2025 to till date

Functional Area Experts Engaged in this Project

S. No	Name of the Expert	Cat.	Functional Areas	Involvement	Signature
1	Dr. S. Suriyakumar	A	SC	- Study of soil profile. - Assessing the impact on soil environment and proposed mitigation measures for soil conservation.	
			SHW	- Waste disposal method evaluation - Providing dump management plan	
			RH	Management plan for safety	
2	Mr.K.Thirumeni	B	LU	- Collection of Remote sensing satellite data to study the land use pattern. - Construction of Land use Map. - Impact of project on surrounding land use.	
	Mrs. S. Santhi		SE	- Identification of villages in the study area and finalization of demographic profile of the villages within the study area - Revision in secondary data as per Census of India, 2011.	

DRAFT EIA/EMP REPORT FOR CLUSTER OF TWO QUARRIES
Cluster Area: 11.53.0 Ha, Rough Stone and Gravel Quarry, Tirupur District

3	R.R Prakash Babu	B	AP	• Identification of different sources of air pollution due to the proposed mine activity. • Identification of Impacts & suggestion of mitigation measures.	
4	Mrs. A. Nagadevi	B	WP	• Study of the monitored data with respect to the applicable standards. • Identification of Water requirement & Source. • Preparation of water balance diagram. • Impact of the project on the water quality, both surface and groundwater. • Suggestion of Mitigation measures to control water pollution.	
5	S. Sagath Srikrishnan	B	AQ	• Identifying different source of emissions and propose predictions of incremental GLC using AERMOD. • Recommending mitigations measures for EMP.	
6	Dr.S.Suriyakumar	B	NV	• Predict the noise level and vibration level due to proposed mining operation based on scientific evaluation.	
	R.R Prakash Babu			• Suggesting the Mitigation measures to control noise pollution, Suggesting the Mitigation measures to control ground vibration.	
7	Mr. K. Manuraj	A	HG	• Interpretation of ground water table and predict impact and propose mitigation measures. • Analysis and description of aquifer Characteristics. • Study about impact on the hydrology due to mining operation	
	Dr. Nallathambi Varadarajan				
8	Mr. K. Velmurugan	B	Geo	• Field Survey for assessing the regional and local geology of the area. • Study of geology of the ML area and the surrounding areas. • Provide details about Mineral composition	
	Dr. Nallathambi Varadarajan				
9	Sudha Vijayanand	B	EB	• Collection the primary data from project site and compare the secondary data from local DFO office.	

List of FAA/Team Members Engaged in this Project

S. No	Name of the Expert	Cat.	Functional Areas	Involvement	Signature
1	Mrs. S. Sri Vidhya	B	WP, AQ	• Site Visit with FAE. • Analyse & provide inputs and assist FAE with meteorological data, emission estimation, AERMOD modelling and suggesting control measures	
2	Dr.M. Selvakumar	B	AP, AQ	• Site Visit with FAE. • Assisting FAE on sources of Air pollution, its impacts and suggest control measures.	
3	Mrs.V.Kalaivani	B	AP	• Site Visit with FAE. • Assisting FAE on sources of Air pollution, its impacts and suggest control measures	
4	Mr.A. Jagadeesh Kumar	B	AQ, NV	• Site Visit with FAE. • Assist FAE with prediction modelling. • Assist FAE and provide inputs on impacts due to proposed mine activity and suggest mitigation measures.	



File No: 11960
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA),
TAMIL NADU)



Dated 15/06/2025



To,

Thiru.KARTHIK
 No. 3/563, Kuttai Thottam, 63, Velampalayam, Palladam, TIRUPPUR, TAMIL NADU, 641663
 karthikgokul999@gmail.com

Subject: Grant of Terms of Reference **along with Public Hearing** under the provision of the EIA Notification 2006-as amended regarding.

Sir/Madam,

Sub:SEIAA, Tamil Nadu – Proposed Rough stone & Gravel Quarry lease over an extent of 2.05.0 Ha at S.F. No. 277 Iduvai Village, Tiruppur South Taluk, Tiruppur District, Tamil Nadu by Thiru. B. Karthik - 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/529488/2025, Dated: 15/03/2025.
2. Your application submitted for Terms of Reference dated: 17.03.2025.
3. Minutes of the 565th SEAC-II Meeting held on 15.05.2025.
4. Minutes of the 833rd Authority meeting held on 03.06.2025.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO25B0108TN5138034N
(ii) File No.	11960
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	B. Karthik, Rough Stone and Gravel Quarry Project
(viii) Name of Company/Organization	KARTHIK
(ix) Location of Project (District, State)	TIRUPPUR, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.
4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 03.06.2025 The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B,)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
5. The State Expert Appraisal Committee (SEAC), based on the information & clarifications provided by the project proponent and after detailed deliberations on all technical aspects recommended the proposal for grant of Terms of Reference with public hearing under the provision of EIA Notification, 2006 and as amended thereof subject to the stipulation of specific and general conditions as detailed in Annexure (2).
6. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SEAC hereby decided to issue the following Terms of Reference with public hearing for instant proposal Thiru. B. Karthik under the provisions of EIA Notification, 2006 and as amended thereof.
7. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.
8. The Terms of Reference with public hearing to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
9. This issues with the approval of the Competent Authority.
10. 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.

Copy To

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Natural Resources Department, Tamil Nadu.
4. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. The Chair Person, TNPC Board, 76, Mount Salai, Guindy, Chennai-32
6. The District Collector, Tiruppur District
7. The Commissioner of Geology and Mines, Guindy, Chennai-32
8. The Assistant Director, Department of Geology & Mining, Tiruppur District
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Integrated Regional office of MoEF&CC, Sasthri Bhawan, Nungambakkam, Chennai
11. File Copy

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Seac Conditions - Site Specific

S. No	Terms of Reference
1.1	1. Since the habitation is located 279.20 meters west of the proposed site, the project proponent shall maintain a safety distance of 300 meters from the proposed site as well as safety distance of 50

S. No	Terms of Reference
	meters from the odai and submit the modified mining plan accordingly. 2. A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal: (i) Copy of the agreement forming CMC. (ii) The Organisation chart of the Committee with defining the role of the members (iii) The 'Standard Operating Procedures' (SoP) executing the planned activities. 3. The PP shall ensure the installation of CCTV at the proposed quarry site and ensure its inclusion during the EIA presentation.

2. Seac Standard Conditions

S. No	Terms of Reference
2.1	1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following: (i) Original pit dimension (ii) Quantity achieved Vs EC Approved Quantity (iii) Balance Quantity as per Mineable Reserve calculated. (iv) Mined out Depth as on date Vs EC Permitted depth (v) Details of illegal/illicit mining (vi) Violation in the quarry during the past working. (vii) Quantity of material mined out outside the mine lease area (viii) Condition of Safety zone/benches (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m. 2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site. 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 shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc. 4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry. 5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report. 6. The 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. 7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability

S. No	Terms of Reference
	status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC. 8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level. 9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent. 10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site. 11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences. 12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines, 13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines? 14. Quantity of minerals mined out. · Highest production achieved in any one year · Detail of approved depth of mining. · Actual depth of the mining achieved earlier. · Name of the person already mined in that leases area. · If EC and CTO already obtained, the copy of the same shall be submitted. · Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches. 15. 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). 16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc., 17. 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. 18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same. 19. 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 the 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. 20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. 21. 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.

S. No	Terms of Reference
	22. 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. 23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted. 24. 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. 25. 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. 26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered. 27. 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. 28. Impact on local transport infrastructure due to the Project should be indicated. 29. 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. 30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific. 31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible. 32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner. 33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner 34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed. 37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed

S. No	Terms of Reference
	along with budgetary allocations. 38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation. 39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given. 40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc. 41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB. 42. The 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. 43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

3. Seiaa Specific Conditions:

S. No	Terms of Reference
3.1	The Authority noted that the subject was placed in the 565th Meeting of SEAC-II held on 15.05.2025. After detailed discussions, the Authority accepts the recommendation of SEAC-II and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 1,72,820 m³ of rough stone and 22,546 m³ of gravel upto the depth of 32m BGL as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-II & normal conditions & the conditions mentioned in Annexure of this minutes.

4. Seiaa Standard Conditions:

S. No	Terms of Reference
4.1	<u>Cluster Management Committee</u> 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., 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 & emergency management plan, fire safety & evacuation plan and sustainable development goals 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.

S. No	Terms of Reference
	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 in the EIA Report. 7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner. 8. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity. <u>Agriculture & Agro-Biodiversity</u> 9. Impact on surrounding agricultural fields around the proposed mining Area. 10. Impact on soil flora & vegetation around the project site. 11. Details of type of vegetation including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP. 12. The Environmental Impact Assessment should study the agro-biodiversity, agro- forestry, horticultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem. 13. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services. 14. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock. <u>Forests</u> 15. The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife. 16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna. 17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection. 18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site. <u>Water Environment</u> 19. 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. 20. Erosion Control measures. 21. 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. 22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir. 23. The project proponent shall study and furnish the details on potential fragmentation impact on natural Environment, by the activities. 24. 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. 25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components. 26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites. 27. The EIA shall include the impact of mining activity on the following:

S. No	Terms of Reference
	a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including Environmental stress. c) Sediment geochemistry in the surface streams. <u>Energy</u> 28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished. <u>Climate Change</u> 29. 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. 30. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features. 31. Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood. <u>Mine Closure Plan</u> 32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued. <u>EMP</u> 33. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs. 34. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan. <u>Risk Assessment</u> 35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining. <u>Disaster Management Plan</u> 36. 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. <u>Others</u> 37. 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. 38. 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. 39. 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.

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	Year-wise production details since 1994 should be given, clearly stating the highest production

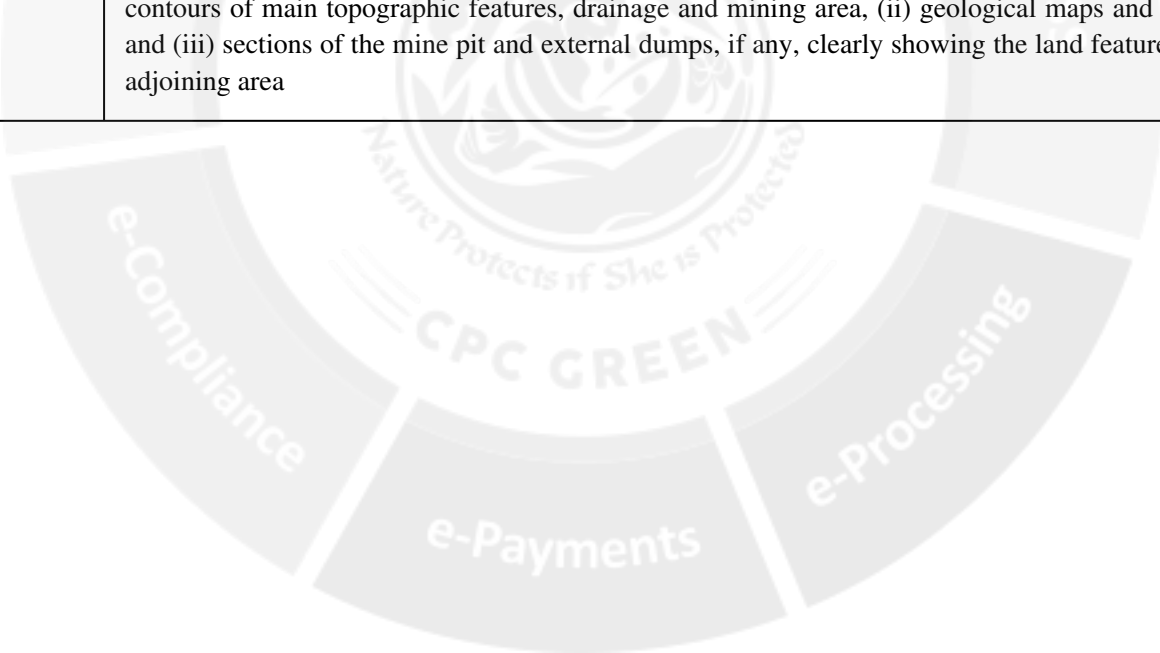
S. No	Terms of Reference
	achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994
1.2	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
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 management, mining technology etc. and should be in the name of the lessee
1.4	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the areashould 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)
1.5	Information should be provided in Survey of India Toposheet 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
1.6	Details about the land proposed for mining activities should be givenwith 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
1.7	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
1.8	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
1.9	The study rea 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
1.10	Land use of the study rea 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
1.11	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
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided,

S. No	Terms of Reference
	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
1.13	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
1.14	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
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given
1.16	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
1.17	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
1.18	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 alongwith 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
1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered
1.20	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)
1.21	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

S. No	Terms of Reference
	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
1.22	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
1.23	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
1.24	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
1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided
1.26	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
1.27	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided
1.28	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 State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.29	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
1.30	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

S. No	Terms of Reference
1.31	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
1.32	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
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report
1.34	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
1.35	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
1.36	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
1.37	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
1.38	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
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
1.40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given
1.41	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report

S. No	Terms of Reference
1.43	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
1.44	Besides the above, the below mentioned general points are also to be followed:- a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) 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. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed. g) 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. h) 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. i) 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



A. STANDARD TERMS OF REFERENCE

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

- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly

authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on

ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and

modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio-economic significance and influence to the local community

proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

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

10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase in the above study shall be substantiated with mitigation measures.
14. A study on the geological resources available shall be carried out and reported.
15. A specific study on agriculture & livelihood shall be carried out and reported.
16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.
24. Occupational Health Measures
25. Post project monitoring plan
26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
30. Reserve funds should be earmarked for proper closure plan.

31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

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

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- 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 OM No.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.



File No: 11926
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA),
TAMIL NADU)



Dated 30/05/2025



To,

Thiru.Ramasamy
 No. 2/697-A, Vivkananda Nagar Main Street, S.R. Nagar South, Mangalam Road, Tiruppur District,
 Tiruppur, TIRUPPUR, TAMIL NADU, 641687
 vprcrusher.office@gmail.com

Subject: Grant of Terms of Reference **ToR issued along with Public Hearing** under the provision of the EIA Notification 2006-as amended regarding.

Sir/Madam,

Sub:SEIAA, Tamil Nadu – Existing Rough stone and Gravel quarry over an Extent 1.59.0 Ha at S.F. No. 286/1 (Part), Iduvai Village, Tiruppur South Taluk, Tiruppur District, Tamil Nadu by Thiru. V. P. Ramasamy - 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/528542/2025, Dated: 10.03.2025.
2. Your application submitted for Terms of Reference dated: 10.03.2025.
3. Minutes of the 556th Meeting of SEAC held on 25.04.2025.
4. Minutes of the 828th Authority meeting held on 26.05.2025.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO25B0108TN5952127N
(ii) File No.	11926
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	V.P. Ramasamy, Rough Stone and Gravel Quarry Project.
(viii) Name of Company/Organization	ramasamy
(ix) Location of Project (District, State)	TIRUPPUR, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no

1. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1 (Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.
2. The above-mentioned proposal has been considered by SEIAA in the meeting held on 19.05.2025. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B,)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
3. The State Expert Appraisal Committee (SEAC), based on the information & clarifications provided by the project proponent and after detailed deliberations on all technical aspects recommended the proposal for grant of Terms of Reference with public hearing under the provision of EIA Notification, 2006 and as amended thereof subject to the stipulation of specific and general conditions as detailed in Annexure (2).
4. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SEAC hereby decided to issue the following Terms of Reference with public hearing for instant proposal Thiru. V. P. Ramasamy under the provisions of EIA Notification, 2006 and as amended thereof.
5. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.
6. The Terms of Reference with public hearing to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
7. This issues with the approval of the Competent Authority.
8. 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.

Copy To

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Natural Resources Department, Tamil Nadu.
4. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. The Chair Person, TNPC Board, 76, Mount Salai, Guindy, Chennai-32
6. The District Collector, Tiruppur District
7. The Commissioner of Geology and Mines, Guindy, Chennai-32
8. The Assistant Director, Department of Geology & Mining, Tiruppur District
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Integrated Regional office of MoEF&CC, Sastri Bhawan, Nungambakkam, Chennai
11. File Copy

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Seac Conditions - Site Specific

S. No	Terms of Reference
1.1	1. As per the MoEF&CC Office Memorandum F.No. IA3-22/10/2022-IA-III[E177258] dated 08.06.2022, the proponent shall furnish the CCR along with the Action Taken Report for any instances of non-compliance. 2. The PP shall submit the registered land consent document, as the Patta includes another

S. No	Terms of Reference
	individual, Mrs. Dhanalakshmi. 3. The PP shall clarify the note in the Chitta/Patta and A-Register documents indicating that the proposed land is classified as 'Odai'. The PP is required to provide a detailed explanation along with supporting documents in this regard. 4. A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal: (i) Copy of the agreement forming CMC. (ii) The Organisation chart of the Committee with defining the role of the members (iii) The 'Standard Operating Procedures' (SoP) executing the planned activities. 5. The PP shall ensure the installation of CCTV at the proposed quarry site and ensure its inclusion during the EIA presentation.

2. Seac Standard Conditions

S. No	Terms of Reference
2.1	1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following: (i) Original pit dimension (ii) Quantity achieved Vs EC Approved Quantity (iii) Balance Quantity as per Mineable Reserve calculated. (iv) Mined out Depth as on date Vs EC Permitted depth (v) Details of illegal/illicit mining (vi) Violation in the quarry during the past working. (vii) Quantity of material mined out outside the mine lease area (viii) Condition of Safety zone/benches (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m. 2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site. 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 shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc. 4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry. 5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report. 6. The 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. 7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions -

S. No	Terms of Reference
	CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC. 8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level. 9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent. 10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site. 11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences. 12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines, 13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines? 14. Quantity of minerals mined out. · Highest production achieved in any one year · Detail of approved depth of mining. · Actual depth of the mining achieved earlier. · Name of the person already mined in that leases area. · If EC and CTO already obtained, the copy of the same shall be submitted. · Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches. 15. 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). 16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc., 17. 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. 18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same. 19. 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 the 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. 20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.

S. No	Terms of Reference
	21. 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. 22. 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. 23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted. 24. 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. 25. 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. 26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered. 27. 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. 28. Impact on local transport infrastructure due to the Project should be indicated. 29. 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. 30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific. 31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible. 32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner. 33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner 34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health

S. No	Terms of Reference
	mitigation measures with required facilities proposed in the mining area may be detailed. 37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations. 38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation. 39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given. 40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc. 41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCCB. 42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine. 43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

3. Seiaa Specific Conditions:

S. No	Terms of Reference
3.1	The Authority noted that the subject was placed in the 556th Meeting of SEAC-II held on 25.04.2025. After detailed discussions, the Authority accepts the recommendation of SEAC-II and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 95,843 m³ of rough stone upto the depth of 42m BGL as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-II & normal conditions & the conditions mentioned below.

4. Seiaa Standard Conditions:

S. No	Terms of Reference
4.1	<u>Cluster Management Committee</u> 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., 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 & emergency management plan, fire safety & evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially

S. No	Terms of Reference
	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 in the EIA Report. 7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner. 8. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity. <u>Agriculture & Agro-Biodiversity</u> 9. Impact on surrounding agricultural fields around the proposed mining Area. 10. Impact on soil flora & vegetation around the project site. 11. Details of type of vegetation including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP. 12. The Environmental Impact Assessment should study the agro-biodiversity, agro- forestry, horticultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem. 13. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services. 14. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock. <u>Forests</u> 15. The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife. 16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna. 17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection. 18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site. <u>Water Environment</u> 19. 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. 20. Erosion Control measures. 21. 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. 22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir. 23. The project proponent shall study and furnish the details on potential fragmentation impact on natural Environment, by the activities. 24. 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. 25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components. 26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams,

S. No	Terms of Reference
	lakes and farmer sites. 27. The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including Environmental stress. c) Sediment geochemistry in the surface streams. <u>Energy</u> 28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished. <u>Climate Change</u> 29. 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. 30. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features. 31. Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood. <u>Mine Closure Plan</u> 32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued. <u>EMP</u> 33. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs. 34. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan. <u>Risk Assessment</u> 35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining. <u>Disaster Management Plan</u> 36. 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. <u>Others</u> 37. 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. 38. 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. 39. 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.

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	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
1.2	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
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 management, mining technology etc. and should be in the name of the lessee
1.4	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the areashould 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)
1.5	Information should be provided in Survey of India Toposheet 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
1.6	Details about the land proposed for mining activities should be givenwith 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
1.7	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
1.8	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
1.9	The study rea 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
1.10	Land use of the study rea 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
1.11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land

S. No	Terms of Reference
	area, distance from mine lease, its land use, R&R issues, if any, should be given
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to 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
1.13	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
1.14	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
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given
1.16	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
1.17	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
1.18	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
1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered
1.20	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)

S. No	Terms of Reference
1.21	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
1.22	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
1.23	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
1.24	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
1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided
1.26	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
1.27	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided
1.28	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 State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.29	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

S. No	Terms of Reference
1.30	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
1.31	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
1.32	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
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report
1.34	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
1.35	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
1.36	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
1.37	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
1.38	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
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
1.40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given

S. No	Terms of Reference
1.41	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report
1.43	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
1.44	Besides the above, the below mentioned general points are also to be followed:- a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) 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. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed. g) 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. h) 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. i) 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

A. STANDARD TERMS OF REFERENCE

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

- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly

authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on

ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and

modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio-economic significance and influence to the local community

proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

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

10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase in the above study shall be substantiated with mitigation measures.
14. A study on the geological resources available shall be carried out and reported.
15. A specific study on agriculture & livelihood shall be carried out and reported.
16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.
24. Occupational Health Measures
25. Post project monitoring plan
26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
30. Reserve funds should be earmarked for proper closure plan.

31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

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

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- 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 OM No.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

ந.க.எண். 58/கனிமம்/ 2023

புவியியல் மற்றும் சுரங்கத்துறை
மாவட்ட ஆட்சியர் அலுவலகம்,
திருப்பூர்.

நாள்: 5. 07.2024.

குறிப்பாணை

பொருள் : கனிமங்களும் சுரங்கங்களும் - சிறு கனிமம் - திருப்பூர் மாவட்டம் - திருப்பூர் தெற்கு வட்டம் - இடுவாய் கிராமம் - பட்டா புல எண். 277 -ல் 2.05.0 ஹெக்டர் பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் கோரி திரு. P. கார்த்திக் த/பெ. கே. பாலசுப்பிரமணியம் என்பவர் விண்ணப்பம் அளித்தது - புலத்தணிக்கை அறிக்கை சமர்ப்பிக்கப்பட்டது - தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்க திட்டம் மற்றும் சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய இசைவினை பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

- பார்வை :
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 2. இவ்வலுவலக ந.க.எண். 712/கனிமம்/2021 நாள்:24.02.2023.
 3. வட்டாட்சியர், திருப்பூர் தெற்கு கடிதம் ந.க. 4502/2023/அ1 நாள்:11.01.2024
 4. சார் ஆட்சியர், திருப்பூர் கடிதம் ந.க. 256/2024/அ3 நாள்:03.05.2024.
 5. வட்டார வளர்ச்சி அலுவலர் (வ.ஊ), திருப்பூர் கடிதம் ந.க. 2486/2024/அ1 நாள்:04.07.2024
 6. உதவி புவியியலாளர் மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்), திருப்பூர் புலத்தணிக்கை அறிக்கை நாள்: 25.06.2024.
 7. இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை ந.க. 1870/எம்.எம்.1/2020 நாள்: 10.08.2020 கடிதத்துடன் அரசாணை (பல்வகை) எண். 169, தொழில் (எம்எம்.சி-1) துறை நாள்: 04.08.2020 இணைத்து வரப்பெற்றுள்ளது. (தமிழ்நாடு அரசிதழ் சிறப்பு வெளியீடு எண். 315 நாள்: 04.08.2020).
 8. மற்றும் உரிய ஆவணங்கள்

திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல எண். 277-ல் 2.05.0 ஹெக்டர் பரப்புள்ள பட்டா பூமியிலிருந்து 10 வருடங்களுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திரு. P. கார்த்திக், த/பெ. கே. பாலசுப்பிரமணியம், 3/563, குட்டைத் தோட்டம், 63, வேலம்பாளையம், பல்லடம் என்பவர் பார்வை 1-ல் கண்டுள்ளபடி உரிய ஆவணங்களுடன் விண்ணப்பம் அளித்துள்ளார்.

2. மேற்படி விண்ணப்பங்கள் தொடர்பாக, வட்டார வளர்ச்சி அலுவலர், திருப்பூர், வட்டாட்சியர், திருப்பூர் தெற்கு, சார் ஆட்சியர், திருப்பூர், மற்றும் உதவி புவியியலாளர் (கனிமம்) மற்றும் தனி வருவாய் ஆய்வாளர் திருப்பூர் ஆகியோர் புலத்தணிக்கை மேற்கொண்டு திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், பட்டா புல எண். 277 ல் 2.05.0 ஹெக்டர் பரப்பில் திரு. P. கார்த்திக், த/பெ. கே. பாலசுப்பிரமணியம் என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி உரிமம் வழங்க கீழ்க்கண்ட நிபந்தனைகளுக்குட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்:

- i. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை IIல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.
- ii. புலத்தை சுற்றி அமைந்துள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரி பணிபுரிய வேண்டும்.
- iii. குத்தகை உரிமம் கோரும் புலத்தின் வடக்கு பகுதியில் செல்லும் ஓடைக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளி விடவேண்டும். மேற்கண்ட ஓடையை சேதப்படுத்தினால் அதை குத்தகைதாரரே சரி செய்து தர வேண்டும்.
- iv. அனுபவம் வாய்ந்த வெடிபொருள் பயன்படுத்துவோர் மூலம் குறைந்த அளவு சக்தி கொண்ட வெடிபொருட்களை பயன்படுத்தி அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூறுமின்றி / அருகிலுள்ள பட்டா மற்றும் அரசு புலங்களில் எவ்வித ஆக்கிரமிப்பும் இன்றி குவாரிப்பணி மேற்கொள்ள வேண்டும்.
- v. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- vi. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

3. எனவே, திருப்பூர், வட்டாட்சியர், திருப்பூர் தெற்கு, சார் ஆட்சியர், திருப்பூர், உதவி புவியியலாளர் (கனிமம்) மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்), திருப்பூர் ஆகியோரின் பரிந்துரை மற்றும் நிபந்தனைகளின் அடிப்படையில், திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், பட்டா புல எண்.277-ல் 2.05.0 ஹெக்டர் பரப்பில் மட்டும் 1959ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண்.19-ன் படி மேற்கண்ட

நிபந்தனைகளுக்குட்பட்டு 5 (ஐந்து) வருட காலத்திற்கு திரு. P. கார்த்திக், த/பெ. கே. பாலசுப்பிரமணியம் என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

4. மேலும், தமிழ்நாடு சிறு கனிம சலுகை விதிகள்-1959 விதி எண். 41-ன்படி குவாரிப்பணி மேற்கொள்வது தொடர்பாக வரைவு சரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறு மனுதாரரைக் கேட்டுக்கொள்ளப்படுகிறது. மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-ன் படி சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருப்பூர்.

பெறுநர்:

திரு. P. கார்த்திக்,
த/பெ. கே. பாலசுப்பிரமணியம்,
3/563, குட்டைத் தோட்டம்,
63, வேலம்பாளையம்,
பல்லடம்

5/5/24

05/7/24

5/5/24

ந.க.எண். 712/கனிமம்/ 2021

புவியியல் மற்றும் சுரங்கத்துறை
மாவட்ட ஆட்சியர் அலுவலகம்,
திருப்பூர்.

நாள்: 5.07.2024.

குறிப்பாணை

பொருள் : கனிமங்களும் சுரங்கங்களும் - சிறு கனிமம் - திருப்பூர் மாவட்டம் - திருப்பூர் தெற்கு வட்டம் - இடுவாய் கிராமம் - பட்டா புல எண். 286/1 (பகுதி) -ல் 1.59.0 ஹெக்டர் பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் கோரி திரு. V.P. ராமசாமி த/பெ. பழனிச்சாமி என்பவர் விண்ணப்பம் அளித்தது - புலத்தணிக்கை அறிக்கை சமர்ப்பிக்கப்பட்டது - தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்க திட்டம் மற்றும் சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய இசைவினை பெற்று சமர்ப்பிக்கக் கோருதல் - தொடர்பாக.

- பார்வை :
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 2. இவ்வலுவலக ந.க.எண். 712/கனிமம்/2021 நாள்:29.06.2021.
 3. வட்டாட்சியர், திருப்பூர் தெற்கு கடிதம் ந.க. 1741/2021/அ1 நாள்:28.07.2021
 4. வருவாய் கோட்டாட்சியர், திருப்பூர் கடிதம் ந.க. 1463/2021/அ1 நாள்:03.08.2021.
 5. வட்டார வளர்ச்சி அலுவலர் (வ.ஊ), திருப்பூர் கடிதம் ந.க. 2003/2021/அ2 நாள்:06.08.2021
 6. உதவி புவியியலாளர் (கனிமம்), திருப்பூர் புலத்தணிக்கை அறிக்கை நாள்: 25.06.2024.
 7. சார் ஆட்சியர் (பொ), திருப்பூர் கடிதம் மூ.மு.எண்.1463/2021/அ3 நாள்:24.06.2024.
 8. இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை ந.க. 1870/எம்.எம்.1/2020 நாள்: 10.08.2020 கடிதத்துடன் அரசாணை (பல்வகை) எண். 169, தொழில் (எம்எம்.சி-1) துறை நாள்: 04.08.2020 இணைத்து வரப்பெற்றுள்ளது. (தமிழ்நாடு அரசிதழ் சிறப்பு வெளியீடு எண். 315 நாள்: 04.08.2020).
 9. மற்றும் உரிய ஆவணங்கள்

திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், பட்டா புல எண். 286/1 (பகுதி)-ல் 1.59.0 ஹெக்டர் பரப்புள்ள பட்டா பூமியிலிருந்து 5 வருடங்களுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திரு. V.P. ராமசாமி, த/பெ. பழனிச்சாமி என்பவர் பார்வை 1-ல் கண்டுள்ளபடி உரிய ஆவணங்களுடன் விண்ணப்பம் அளித்துள்ளார்.

2. மேற்படி விண்ணப்பங்கள் தொடர்பாக, வட்டார வளர்ச்சி அலுவலர், திருப்பூர், வட்டாட்சியர், திருப்பூர் தெற்கு, வருவாய் கோட்டாட்சியர் மற்றும் சார் ஆட்சியர் (பொ) திருப்பூர், மற்றும் உதவி புவியியலாளர் (கனிமம்), திருப்பூர் ஆகியோர் புலத்தணிக்கை திருப்பூர், மற்றும் உதவி புவியியலாளர் (கனிமம்), திருப்பூர் ஆகியோர் புலத்தணிக்கை மேற்கொண்டு திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், பட்டா புல எண். 286/1 (பகுதி)-ல் 1.59.0 ஹெக்டர் பரப்பில் திரு. V.P. ராமசாமி, த/பெ. பழனிச்சாமி என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி உரிமம் வழங்க கீழ்க்கண்ட நிபந்தனைகளுக்குட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்:

- i. 1959ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், அட்டவணை IIல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்குரிய சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு செல்லப்பட வேண்டும்.
- ii. அருகிலுள்ள பட்டா நிலங்களுக்கு 7.5 மீ பாதுகாப்பு இடைவெளி விட்டு குவாரிப் பணி மேற்கொள்ள வேண்டும்.
- iii. அனுபவம் வாய்ந்த வெடிபொருள் பயன்படுத்துவோர் மூலம் குறைந்த அளவு சக்தி கொண்ட வெடிபொருட்களை பயன்படுத்தி அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூறுமின்றி / அருகிலுள்ள பட்டா மற்றும் அரசு புலங்களில் எவ்வித ஆக்கிரமிப்பும் இன்றி குவாரிப்பணி மேற்கொள்ள வேண்டும்.
- iv. விதிகளின் படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- v. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் முன் அனுமதி பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

3. எனவே, திருப்பூர், வட்டாட்சியர், திருப்பூர் தெற்கு, வருவாய் கோட்டாட்சியர், திருப்பூர்/ சார் ஆட்சியர் (பொ), திருப்பூர் மற்றும் உதவி புவியியலாளர் (கனிமம்), திருப்பூர் ஆகியோரின் பரிந்துரை மற்றும் நிபந்தனைகளின் அடிப்படையில், திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், பட்டா புல எண். 286/1 (பகுதி)-ல் 1.59.0 ஹெக்டர் பரப்பில் மட்டும் 1959ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண்.19-ன் படி மேற்கண்ட நிபந்தனைகளுக்குட்பட்டு 5 (ஐந்து) வருட காலத்திற்கு திரு. V.P. ராமசாமி, த/பெ. பழனிச்சாமி என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

4. மேலும், தமிழ்நாடு சிறு கனிம சலுகை விதிகள்-1959 'விதி எண். 41-ன்படி குவாரிப்பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறு மனுதாரரைக் கேட்டுக்கொள்ளப்படுகிறது. மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-ன் படி சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருப்பூர்.

பெறுநர்:

திரு. V.P. ராமசாமி,
த/பெ. பழனிச்சாமி,
2/697-ஏ, விவேகானந்தா நகர் மெயில் வீதி,
எஸ்.ஆர். நகர் தெற்கு,
மங்கலம் ரோடு,
திருப்பூர்.

சீதா

05/7/24

சி. சீதா

From

To

Thiru. A.Perumal, M.Sc., M.Phil.,
Deputy Director,
Geology and Mining,
Tiruppur

Thiru.B.Karthik,
S/o.Balasubramaniam,
3/563, Kuttai Thottam,
63, Velampalayam,
Palladam Taluk,
Tiruppur.

R.c. No. 58/ Mines / 2023 dated: 08.2024

Sub: Mines and Minerals – Minor Mineral – Rough Stone and Gravel- Tiruppur District – Tiruppur South Taluk – Iduvai Village- S.F.No.277 - over an Extent of 2.05.0 Hectares of patta land- Quarry lease for Rough Stone and Gravel - Application preferred by Thiru.B.Karthik - Precise area communicated for the proposed grant of quarry lease - Mining Plan Submitted for approval - Approved - regarding.

- Ref: 1. Application for grant of Rough Stone and Gravel quarry lease preferred by Thiru.B.Karthik dated: 16.02.2023
2. G.O. Ms. No. 79 / Industries (MMC 1) Department dated 06.04.2015.
3. The Deputy Director, Geology and Mining, Tiruppur letter R.C. No.58/Mines/2023 dated 05.07.2024
4. Thiru.B.Karthik letter dated:nil received on 01.08.2024

Thiru.B.Karthik preferred an application for the grant of Rough Stone and Gravel quarry lease over an extent of 2.05.0 Hectares of Patta land in S.F.No.277 of Iduvai Village, Tiruppur South Taluk, Tiruppur District vide the reference 1st cited and the precise area was communicated to the applicant vide the reference 3rd cited with a direction to submit the approved mining plan and Environmental Clearance.

As directed, the applicant submitted three copies of mining plan for approval vide the reference 4th cited. The Mining Plan has been verified in detail and found that it was prepared in accordance with the guidelines / instructions issued by the Commissioner of Geology and Mining in letter RC. No. 3868 / LC / 2012 dated 19.11.2012.

Therefore in exercise of the powers conferred under Rule 41(2) of Tamil Nadu Minor Mineral Concession Rules, 1959, read with G.O. (Ms). No.79 / Industries (MMC 1) Department dated 06.04.2015, the mining plan is hereby approved, subject to the following conditions:

- (i) 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 convey the approval of the Government in terms or 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, Explosives Act, 1884 (Central Act IV of 1884) Minor Mineral Concession and Development Rules, 2010 and the Rules made there under and the Tamil Nadu Minor Mineral Concession Rules, 1959.
- (iii) The mining plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
- (iv) The validity of the mining plan is co-terminus with the lease period.
- (v) Quarrying shall be done in accordance with 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.
- (vi) 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.
- (vii) A safety distance of 7.5 meters shall be provided for the patta lands situated adjacent to the applied area.
- (viii) A safety distance of 50 meters should be proved for the odai passing on the Northern side of the applied area.

Encl.: Approved Mining Plan.


Deputy Director,
Geology and Mining,
Tiruppur


13/08/24


17/8/24

From

To

Thiru. A.Perumal, M.Sc., M.Phil.,
Deputy Director,
Geology and Mining,
Tiruppur

Thiru.V.P.Ramasamy,
S/o.Palanisamy,
No.2/697-A,
Vivekananda Nagar main Street,
S.R.Nagar South, Mangalam Road,
Tiruppur District

R.c. No. 712/ Mines / 2021 dated: 08.2024

Sub: Mines and Minerals – Minor Mineral – Rough Stone and Gravel- Tiruppur District – Tiruppur South Taluk – Iduvai Village- S.F.No.286/1(Part) - over an Extent of 1.59.0 Hectares of patta land- Quarry lease for Rough Stone and Gravel - Application preferred by Thiru.V.P.Ramasamy - Precise area communicated for the proposed grant of quarry lease - Mining Plan Submitted for approval - Approved - regarding.

- Ref: 1. Application for grant of Rough Stone and Gravel quarry lease preferred by Thiru.V.P.Ramasamy dated: 28.06.2021
2. G.O. Ms. No. 79 / Industries (MMC 1) Department dated 06.04.2015.
3. The Deputy Director, Geology and Mining, Tiruppur letter R.C. No.712/Mines/2021 dated 05.07.2024
4. Thiru.V.P.Ramasamy letter dated:nil received on 01.08.2024

Thiru.V.P.Ramasamy preferred an application for the grant of Rough Stone and Gravel quarry lease over an extent of 1.59.0 Hectares of Patta land in S.F.No.286/1(Part) of Iduvai Village, Tiruppur South Taluk, Tiruppur District vide the reference 1st cited and the precise area was communicated to the applicant vide the reference 3rd cited with a direction to submit the approved mining plan and Environmental Clearance.

As directed, the applicant submitted three copies of mining plan for approval vide the reference 4th cited. The Mining Plan has been verified in detail and found that it was prepared in accordance with the guidelines / instructions issued by the Commissioner of Geology and Mining in letter RC. No. 3868 / LC / 2012 dated 19.11.2012.

Therefore in exercise of the powers conferred under Rule 41(2) of Tamil Nadu Minor Mineral Concession Rules, 1959, read with G.O. (Ms). No.79 / Industries (MMC 1) Department dated 06.04.2015, the mining plan is hereby approved, subject to the following conditions:

- (i) 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 convey the approval of the Government in terms or 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, Explosives Act, 1884 (Central Act IV of 1884) Minor Mineral Concession and Development Rules, 2010 and the Rules made there under and the Tamil Nadu Minor Mineral Concession Rules, 1959.
- (iii) The mining plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
- (iv) The validity of the mining plan is co-terminus with the lease period.
- (v) Quarrying shall be done in accordance with 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.
- (vi) 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.
- (vii) A safety distance of 7.5 meters shall be provided for the patta lands situated adjacent to the applied area.

Encl.: Approved Mining Plan.


Deputy Director,
Geology and Mining,
Tiruppur


13/02/24


13/02/24

From

To

Thiru.A.Perumal, M.Sc., M.Phil
Deputy Director,
Geology and Mining,
Tiruppur

Thiru.B.Karthik,
S/o.Balasubramaniam,
3/563, Kuttai Thottam,
63, Velampalayam,
Palladam Taluk,
Tiruppur.

R.c. No.58/ Mines / 2023 dated: 08.2024

Sub: Mines and Minerals – Minor Mineral – Rough Stone and Gravel- Tiruppur District – Tiruppur South Taluk – Iduvai Village- S.F.No.277 - over an Extent of 2.05.0 Hectares of patta land- Quarry lease for Rough Stone and Gravel - Application preferred by Thiru.B.Karthik - Precise area communicated for the proposed grant of quarry lease - Mining Plan Submitted for approval - Approved - further details requested - furnished regarding.

- Ref: 1. Application for grant of Rough Stone and Gravel quarry lease preferred by Thiru.B.Karthik dated: 16.02.2023
2. G.O. Ms. No. 79 / Industries (MMC 1) Department dated 06.04.2015.
3. The Deputy Director, Geology and Mining, Tiruppur letter R.C. No.58/Mines/2023 dated 05.07.2024
4. Thiru.B.Karthik letter dated:nil received on 01.08.2024
5. This office letter even no. dated. 13.08.2024 (Mining Plan approved)

In the reference 5th cited above, the applicant Thiru.P.Karthik has requested to furnish details of other quarry leases of expired, existing and proposed within 500mtr radius from the proposed rough stone and gravel lease over an extent of 2.05.0 Hect in S.F.No.277 of Iduvai Village of Tiruppur South Taluk, Tiruppur District.

As requested by the applicant, the details of existing, proposed and expired quarries situated within the radius of 500 meters from the subject area are furnished as follows:-

1. Existing quarries:

SNo	Name of the Applicant	S.F.Nos	Extent(Hect)	Lease Period
1.	Nil			

2. Proposed quarries :

Sl.No	Name of the Applicant	S.F.Nos	Extent (Hect)	Remarks
1.	P.Karthik	277	2.05.0	Applied for quarry lease
2.	V.P.Ramasamy	286/1(Part)	1.59.0	Applied for quarry lease
3.	K.Eswaran	285/1A(P)	1.59.50	Applied for quarry lease

3. Lease expired and abandoned quarries:

SNo	Name of the Applicant	S.F.Nos	Extent(Hect)	Lease Period
1.	Silver C.Venkatachalam	284/1(P)	2.29.0 (Govt land)	20.01.2012- 19.01.2017
2.	P.E.Thangavel	285/2B1, 285/2B2, 286	2.49.0 (Patta)	28.12.2011 - 27.12.2016
3.	K.Balasubramaniam	283/2E2	1.52.0 (Patta)	27.03.2018 - 26.03.2023

Deputy Director
Geology and Mining,
Tiruppur

13/08/24

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

13/08/24

From

To

Thiru.A.Perumal, M.Sc., M.Phil
Deputy Director,
Geology and Mining,
Tiruppur

Thiru.V.P.Ramasamy,
S/o.Palanisamy,
No.2/697-A,
Vivekananda Nagar main Street,
S.R.Nagar South, Mangalam Road,
Tiruppur District

R.c. No. 712/ Mines / 2021 dated: 08.2024

Sub: Mines and Minerals – Minor Mineral – Rough Stone and Gravel- Tiruppur District – Tiruppur South Taluk – Iduvai Village- S.F.No.286/1(Part) - over an Extent of 1.59.0 Hectares of patta land- Quarry lease for Rough Stone and Gravel - Application preferred by Thiru.V.P.Ramasamy - Precise area communicated for the proposed grant of quarry lease - Mining Plan Submitted for approval - Approved - further details requested - furnished regarding.

- Ref: 1. Application for grant of Rough Stone and Gravel quarry lease preferred by Thiru.V.P.Ramasamy dated: 28.06.2021
2. G.O. Ms. No. 79 / Industries (MMC 1) Department dated 06.04.2015.
3. The Deputy Director, Geology and Mining, Tiruppur letter R.C. No.712/Mines/2021 dated 05.07.2024
4. Thiru.V.P.Ramasamy letter dated:nil received on 01.08.2024
5. This office letter even no. dated. 13.08.2024 (Mining Plan approved)

In the reference 5th cited above, the applicant Thiru.V.P.Ramasamy has requested to furnish details of other quarry leases of expired, existing and proposed within 500mtr radius from the proposed rough stone and gravel lease over an extent of 1.59.0 Hect in S.F.No.286/1(Part) of Iduvai Village of Tiruppur South Taluk, Tiruppur District.

As requested by the applicant, the details of existing, proposed and expired quarries situated within the radius of 500 meters from the subject area are furnished as follows:-

1. Existing quarries:

SNo	Name of the Applicant	S.F.Nos	Extent(Hect)	Lease Period
1.	K.Balasubramaniam	284/2A1(P) 284/2A2(P)	1.40.0 (Govt Land)	14.12.2023 - 13.12.2028
1.	B.Radhika	17/1A1B	0.89.0	19.12.2023 - 18.12.2028

2. Proposed quarries :

Sl.No	Name of the Applicant	S.F.Nos	Extent (Hect)	Remarks
1.	V.P.Ramasamy	286/1(Part)	1.59.0	Applied for quarry lease
2.	P.Karthik	277	2.05.0	Applied for quarry lease
3.	K.Eswaran	285/1A(P)	1.59.50	Applied for quarry lease

3. Lease expired and abandoned quarries:

SNo	Name of the Applicant	S.F.Nos	Extent(Hect)	Lease Period
1.	A.Kandasamy	284/2B1, 284/2E2	1.20.0 (Govt Land)	28.03.2007- 28.03.2012
2.	Silver C.Venkatachalam	284/1(P)	2.29.0 (Govt land)	20.01.2012- 19.01.2017
3.	P.E.Thangavel	285/2B1, 285/2B2, 286	2.49.0 (Patta)	28.12.2011 - 27.12.2016
4.	K.Balasubramaniam	283/2E2	1.52.0 (Patta)	27.03.2018 - 26.03.2023

In this regard, as per the approved Mining Plan, the dimension of the existing pits for which previously lease was granted to Thiru. V.P.Ramasamy for a period of 5 years from 23.11.2010 to 22.11.2015 over an extent of 2.71.5 hectares in S.F. No. 286/1 vide District Collector, Tiruppur proceedings in Rc.707/Mines/2010 dated 23.11.2010 and for a period of 5 years from 22.06.2016 to 21.06.2021 over an extent of 1.59.0 hectares in S.F.No.286/1 (Part) vide District Collector proceedings in Rc.No.658/Mines/2015 dated 14.06.2016 as detailed below:-

Pit	Length in (m) (Max)	Width in (m) (Max)	Depth in (m) (Max)
Pit 1	87	83	18
Pit 2	45	30	12
Pit 3	48	45	18

[Signature]
Deputy Director
Geology and Mining,
Tiruppur

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

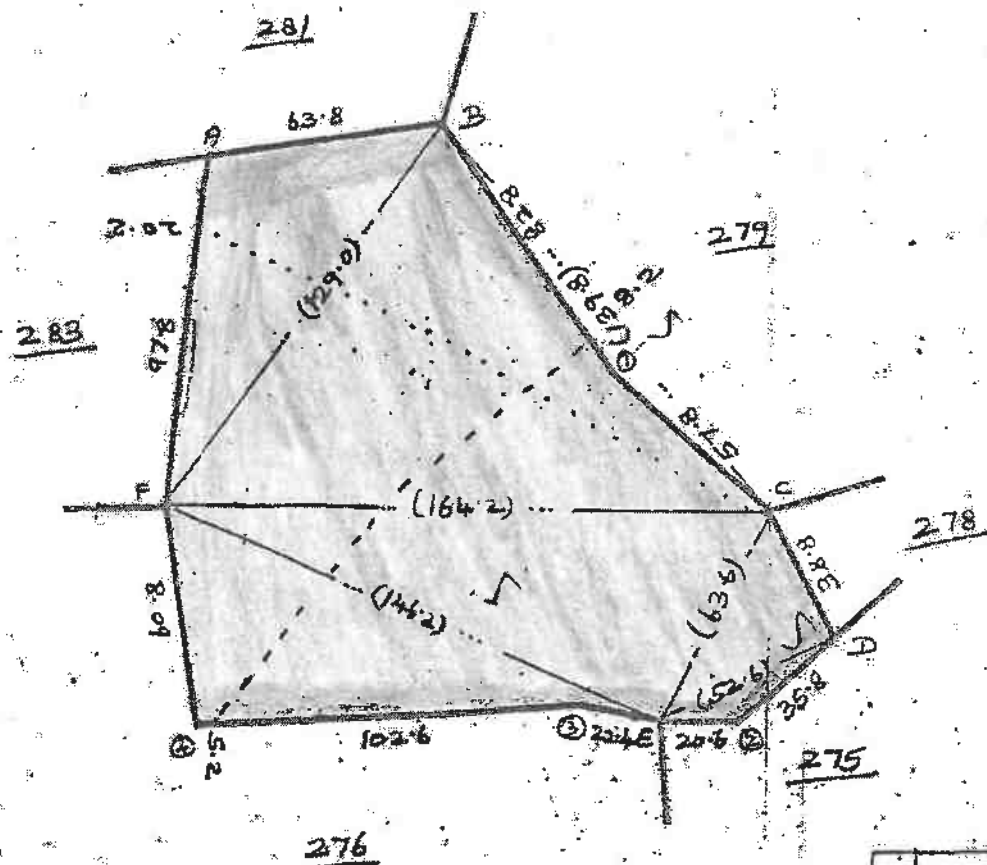
[Signature]
13/08/24

[Signature]
13/08/24



பெயர். சீ. சேனா

2. 06



[Signature]

2. இடுவாய் கிராமம்,
திருப்பூர் தெற்கு

LEASE APPLIED AREA

		F
		(1482)
4	51.0	113.2
3	4.0	2.0
		E
		D
		(526)
		78.0
		E
		C
		(1248)
		82.4
		B



தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : திருப்பூர்

வட்டம் : திருப்பூர் தெற்கு

வருவாய் கிராமம் : இடுவாய்

பட்டா எண் : 3430

உரிமையாளர்கள் பெயர்

1. கிருஷ்ணசாமி

மகன் பாலசுப்பிரமணியம்

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக்டர்	ரூ - பை	ஹெக்டர்	ரூ - பை	ஹெக்டர்	ரூ - பை	
277	-	2 - 5.00	2.88	-	-	-	-	2022/0103/32/381374- -- -- 01-03-2022
		2 - 5.00	2.88					

குறிப்பு 2 :



- மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 32/08/011/03430/30180 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி செய்துகொள்ளவும்.
- இத் தகவல்கள் 02-03-2022 அன்று 12:16:17 PM நேரத்தில் அச்சடிக்கப்பட்டது.
- ஸ்கான்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருப்பூர்

வட்டம் : திருப்பூர் தெற்கு

கிராமம் : இடுவாய்

1. புல எண்	277	9. மண் வயனமும் ரகமும்	8 - 4
2. உட்பிரிவு எண்	-	10. மண் தரம்	6
3. பழைய புல உட்பிரிவு எண்	277	11. தீர்வை (ரூ - ஹெ)	1.38
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	2 - 5.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	2.88
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	3430
7. பாசன ஆதாரம்	-	15. குறிப்பு	வண்டிப்பாதை
8. இரு போகமா	-	16. பெயர்	1.பாலசுப்பிரமணியம்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 32/08/011/277/-/20180 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.



தமிழ்நாடு அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : திருப்பூர்

வட்டம் : திருப்பூர் தெற்கு

வருவாய் கிராமம் : இடுவாய்

பட்டா எண் : 232

உரிமையாளர்கள் பெயர்

1. பழனிசாமிகவுண்டர்

தந்தை

ராமசாமி

2. ராமசாமிகவுண்டர்

கணவன்

தனலட்சுமி

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	
286	1	2-71.50	3.81	-	-	-	-	---இடை--- 09-10-2014
		2-71.50	3.81					

குறிப்பு :



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை.

1. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 32/08/011/00232/20107 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

2. இத் தகவல்கள் 12-07-2024 அன்று 01:59:40 PM நேரத்தில் அச்சடிக்கப்பட்டது.

3. கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்



பகுதி 2
பிரபந்தத்தில் வருடவாரி புலவாரி அகப்பற்று எழுத்து அட்டவணை அமைக்கிறது

பிரபந்தம்

இருக்கல் முறை				
(1)	(2)	(3)	(4)	(5)
பகுதி 1 - பகுதி 1	பகுதி 2 - பகுதி 2	பகுதி 3 - பகுதி 3	பகுதி 4 - பகுதி 4	பகுதி 5 - பகுதி 5

பகுதி 1 - பகுதி 1

பிரபந்தம்				
(1)	(2)	(3)	(4)	(5)
பகுதி 1 - பகுதி 1	பகுதி 2 - பகுதி 2	பகுதி 3 - பகுதி 3	பகுதி 4 - பகுதி 4	பகுதி 5 - பகுதி 5

பகுதி 1 - பகுதி 1

பிரபந்தம்

1001

அ.பதிவேடு

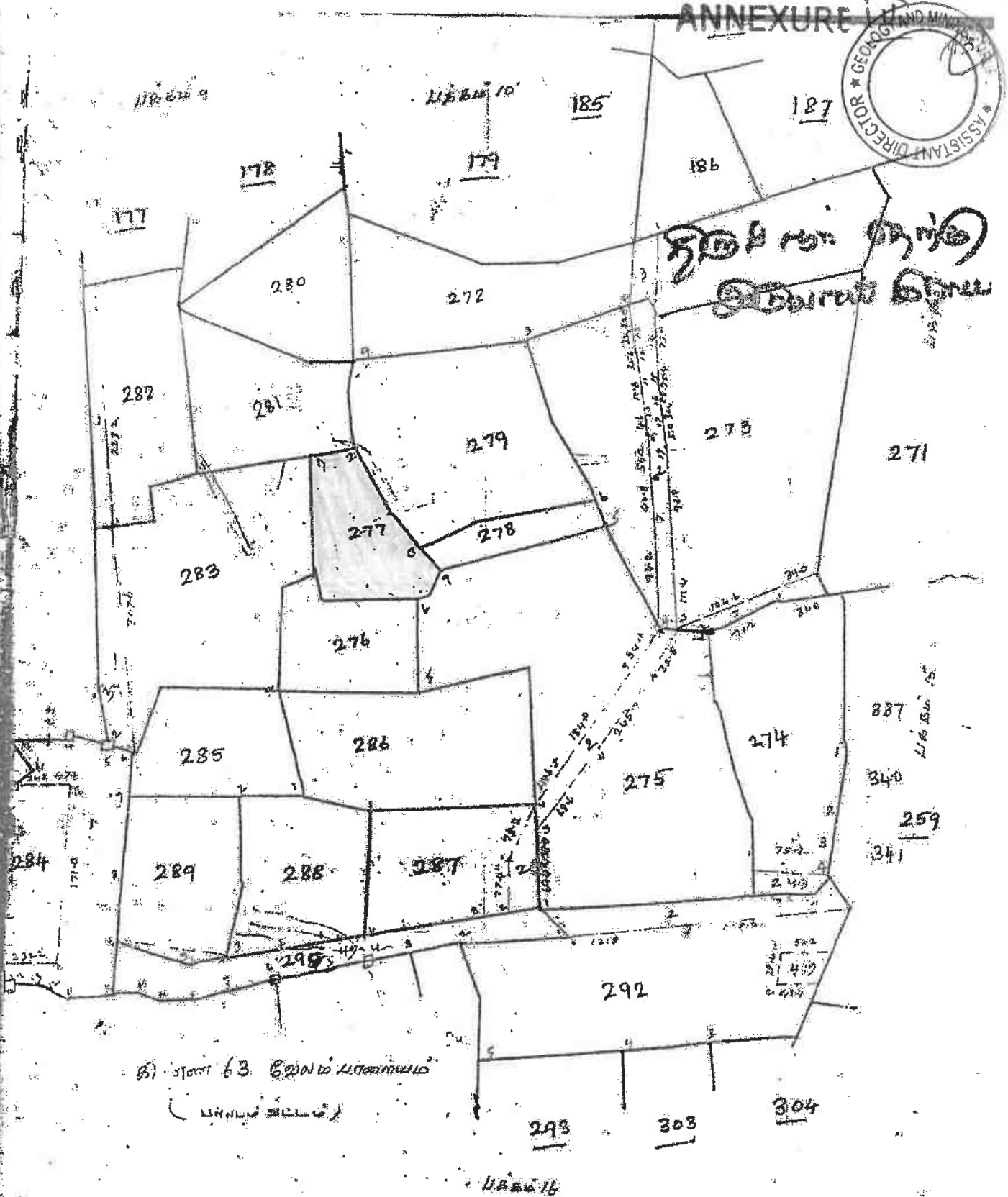
District: Tiruppur

Tbluk :TIRUPPUR
SOUTH

Village : IDUVOI

[illegible]

ANNEXURE VI



சி. எஸ். 63. கனம் அமைச்சர்

(வாரியம் அலுவலர்)

Lease Applied Area



ச. எஸ். 63. கனம் அமைச்சர்

ச. எஸ். 63. கனம் அமைச்சர்
பிரபு / இரா. விவாளர்
கனம் அமைச்சர், கிராமம்,
சென்னை தெற்கு



Lease Applied Area- 

146



தமிழ்நாடு தமிழ்நாடு TAMILNADU
24.02.2025

₹100/-
M. Marammal

EW 752076

M.மாரம்மாள்

முத்திரைத்தாள் விற்பனையாளர்
உரிமம் எண் : 1/ TPR / 2010
திருப்பூர், தமிழ்நாடு.

காசுதீக்கி
சூடுபூசி

உ

குத்தகை ஒப்பந்தப் பத்திரம்.

குத்தகை தொகை வருடம் 1-க்கு ரூ.5000/- வீதம் குத்தகை முன்பணம்
இல்லை குத்தகை கெடு காலம் 5 வருடங்கள்

2025 வருடம், பிப்ரவரி மாதம், 24-ம் தேதி திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63 வேலம்பாளையம், குட்டைத்தோட்டம், கதவு எண்.563(1)-ல் வசித்து வரும் கிருஷ்ணசாமி அவர்களின் குமாரர் திரு.K.பாலசுப்பிரமணியம் (ஆதார் எண்.3329 1311 8922) (கைபேசி எண்.98422-84083) 1.

குத்தகைக்கு விடுபவர்

குத்தகைக்கு பெறுபவர்

திரு.பாலசுப்பிரமணியம்

திரு.பெருமாள்

1. முதல் 2025ம் வருடத்தி் 1751 ம் ஆவணம்
2. தாள்களைக்கொண்டது வது தாள்கள்

1. எண் இணைப்பிதவாளர்

திருப்பூர் மாவட்டம், 63.வேலம்பாளையம், செம்மேடு, குட்டைத்தோட்டம், கதவு எண்.563(1)-ல் வசித்து வரும் திரு.பாலசுப்பிரமணியம் அவர்களின் குமாரர் திரு.B.கார்த்திக் (ஆதார் எண்.7166 9729 8812)(கைபேசி எண்.80122-22325) 2. ஆகிய நாம் இருவரும் எழுதி வைத்துக்கொண்ட குத்தகை ஒப்பந்தப்பத்திரம்

இதனடியில் கண்ட சொத்தானது நம்மில் 1 இலக்கமிட்டவருக்கு 23.11.2012-ம் தேதியில் சுயராஜ்ஜிதமாய் கிரய வகையில் பாத்தியப்பட்டு அது திருப்பூர் ஜாயிண்ட் 1 சார்-பதிவாளர் அலுவலகத்தில் 2012-ம் வருடத்திய 8680-ம் எண்ணாக பதிவாகியுள்ள கிரய பத்திரப்படி பாத்தியப்பட்டு அன்று முதல் நம்மில் 1 இலக்கமிட்டவரின் சுவாதீன அனுபோகத்தில் வைத்து சர்வ சுதந்திரமாக ஆண்டு அனுபவித்து வருகிற இதனடியில் கண்ட சொத்தினை நம்மில் 1 இலக்கமிட்டவர் நம்மில் 2 இலக்கமிட்டவருக்கு குத்தகைக்கு விடுவதாக பேசி கீழ்க்கண்ட ஷரத்துகளுக்கு உட்பட்டு நாம் குத்தகை பத்திரம் எழுதி வைத்துக் கொண்டுள்ளோம்.

மேற்படி இதனடியில் கண்ட சொத்தினை நம்மில் 1 இலக்கமிட்டவர் நம்மில் 2 இலக்கமிட்டவருக்கு வருடம் 1-க்கு ரூ.5,000/- (ரூபாய் ஐந்து ஆயிரம் மட்டும்) வீதம் 5 வருடத்திற்கு கல் குவாரி தொழில் செய்துவர அனுமதியளித்து குத்தகைக்கு கொடுத்துள்ளார்.

குத்தகைக்கு விடுபவர்

1. பாலசுப்பிரமணியம்

குத்தகைக்கு பெறுபவர்

2. B.கார்த்திக்

1. முதலம் 2025ம் வருடத்தி 1751 ம் ஆவணம்
2. தாள்களைக்கொண்டது 2 வருட தாள்
1௭௭௭ இலக்கமிட்டவரின்



மேற்படி குத்தகை காலம் முடிந்தவுடன் நிலத்தை நம்மில்
1 இலக்கமிட்டவர் வசம் நம்மில் 2 இலக்கமிட்டவர் இதனடியில் கண்ட
குத்தகை சொத்தினை திரும்ப ஒப்படைக்க கடமைப்பட்டவராவார்.

இதனடியில் கண்ட குத்தகை சொத்தை மேற்படி குத்தகை காலம் 5 வருடம் முடியும் வரை நம்மில் 1இலக்கமிட்டவர் வேறு எந்த வித வில்லங்கத்திற்கும் உட்படுத்தவில்லை எனவும் இதன் மூலம் உறுதி கூறுகிறார். குத்தகை ஒப்பந்த பத்திரத்தின் பிற நிபந்தனைகளுக்கும் நாம் இருவரும் கட்டுப்பட்டவர்கள் என கீழ்க்கண்ட சாட்சிகளின் முன்னிலையில் சம்மதித்து ஒப்புக்கொண்டு எழுதி வைத்துக்கொண்ட குத்தகை ஒப்பந்தப்பத்திரம்.

குத்தகை பத்திரத்தின் அசல் பத்திரம் நம்மில் 2இலக்கமிட்டவரிடம் இருந்து வர நம்மில் 1 இலக்கமிட்டவரும் சம்மதித்து கையெழுத்து செய்கிறார்.

குத்தகைக்கு விடுபவர்

K. J. V. S. S. S. S.

குத்தகைக்கு பெறுபவர்

B. Uly

1. பதகம் 2025ம் வருத்தி 175 ம் கிணம்
2. தார்க்கணக்காகாந்து 3 வருத்தி



சொத்து விபரம்

திருப்பூர் பதிவு மாவட்டம், திருப்பூர் 1நெ இணைசார்பதிவகம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், க.ச.277நெ காலை பு.ஹெ.2.05.0 க்கு பு.ஏ.5.06க்கு தரம் ரூ.2.88 விஸ்தீரணமுள்ள விவசாய பூமி பூராவும் சகிதம்.மேற்படி சொத்தின் பழைய பட்டா எண்.433 ஆகவும் புதிய பட்டா எண்.3430 ஆகும்.மேற்படி பூமிக்குண்டான மாமூல் தடபாத்தியங்கள் சகிதம்.

மேற்படி சொத்தின் மதிப்பு ரூ.22,40,000/-

குத்தகைக்கு விடுபவர்

K. Shanmuga Bharathy

குத்தகைக்கு பெறுபவர்

பி. இய்யா

சாட்சிகள்

1. *m. சந்திரன்* (பூபதி)த/பெ.மாரப்பன், கதவுஎண்.4/45, ஆட்டையம்பாளையம், இடுவாய், திருப்பூர்-641687. (ஆதார் எண்.5749 2180 8027)
2. *N. கண்ணப்பன்* (கருப்புசாமி) தபெ.நாச்சிமுத்து,கதவு எண்.2/481/3 ராஜகணபதி நகர், இடுவாய் திருப்பூர்-641687(ஆதார் எண்.4825 2556 4372).

PREPARED BY:



TYPED BY :

பி. அருங்குடி அம்மாலை தாமி ஆர்வீ
ச. செயநீதி (Ph.no-304098964115)

A. SHANMUGA BHARATHY, MA., BL.
ADVOCATE Enroll No. MS.1828/99
36, Aishwarya Gardens, Annappalayam Road,
Rakkipalayam Post, TIRUPUR - 641652.
Cell : 96556 34999
advocatebharathy@gmail.com

புத்தகம் 2025ம் வருத்தம் 1751 ம் ஆவணம்
தாள்களாகக் கொண்டு வந்து தான்

எண் இணை சார்பதிவகம்





भारतीय गैर न्यायिक INDIA NON JUDICIAL

रु. 5000

पाँच हजार रुपये

Rs. 5000

FIVE THOUSAND RUPEES

सत्यमेव जयते

INDIA

தமிழ்நாடு தமில்நாடு TAMILNADU ரூ 5000/-

30509

3. 11-2010

P. Ramasamy

பிரமசாமி

(Collr. Ref. No. 707 / Mines / 2010)

APPENDIX - V

(See Rule 19 and 33)



G-333228

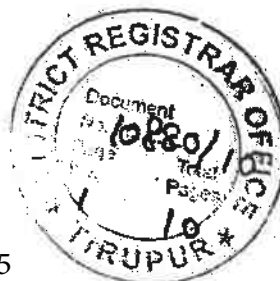
FORM OF JOINT AGREEMENT FOR QUARRYING AND CARRYING AWAY MINOR MINERALS BY LESSEE IN RYOTWARI LANDS IN WHICH THE MINERALS BELONG TO GOVERNMENT

THIS AGREEMENT MADE the 23rd day of NOVEMBER 2010 between Tmt. R. Dhanalakshmi, W/o. Ramasamy, residing at Veerankattu thottam, 63, Velampalayam, Palladam Taluk, Tiruppur District (hereinafter referred to as 'the registered holder' which expression shall where the context so admits, include their heirs, executors,

R. Dhanalakshmi
REGISTERED HOLDER

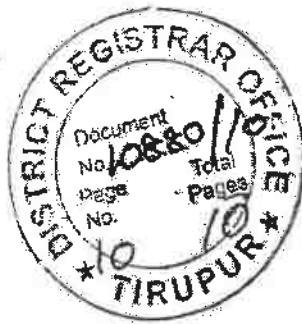
P. Ramasamy
REGISTERED HOLDER / LESSEE

DISTRICT COLLECTOR
TIRUPPUR



10880
2010

Document No. 10880 of 2010
Contains 1 Sheet



presented in the office of the District Registrar Tirupur and a fee of Rs. 5.00 paid between the hours of 2-3 on the 25 Day of November 2010

Sub Registrar
Tirupur

LEFT THUMB

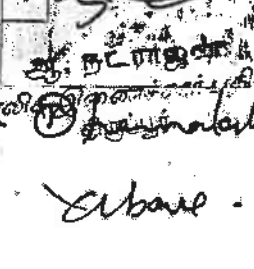
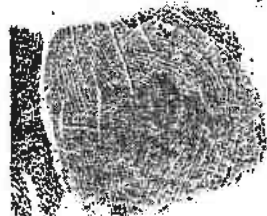


R. Ohmalalsi

W/o. Ramasamy
Veerankattu Thottam.
Palladam Tk

Execution Admitted By

LEFT THUMB



இவரது அடையாளம் குறித்து
ஆவணம் சரிபார்க்கப்பட்டது என
அலுவலகம்

LEFT THUMB



P. Purnam
S/o. Palanisamy Gounder
S/o. Adithyan

இவரது அடையாளம் குறித்து
ஆவணம் சரிபார்க்கப்பட்டது என
அலுவலகம்

IDENTIFIED BY

K. Ramamohan S/o. K. moorthy Sany uppelilalayan. Tiru
V. V. State. Madhuchin 330 P. N. Road T. Y. 2

I HAVE SATISFIED MYSELF AS TO THE EXECUTION
OF THE INSTRUMENT BY THIRU. C. Sanyamooni, D.A.S District Collector Tiru
WHO IS EXEMPTED FROM PERSONAL APPEARANCE
UNDER SECTION 88 (1) OF THE REGISTRATION ACT

Registered as No. 10880 of 2010
Book 1
25.11.2010

306

25 DAY OF November 2010



भारतीय गैर न्यायिक

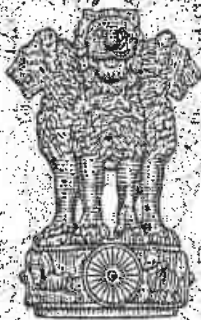
भारत INDIA

रु. 500

FIVE HUNDRED
RUPEES

पाँच सौ रुपये

Rs. 500



सत्यमेव जयते

INDIA NON JUDICIAL

திருச்சூர் தமிழ்நாடு TAMILNADU ரூ. 500/-

N 489966

30510

23-11-2010

P. Ramasamy

திருப்பூர்

[Signature]
சு. மகாலட்சுமி
ஸ்டாம்பு வெண்டர்.
தல. 15/1993,
23 சூரன் வீதி,
திருப்பூர்-1 (தமிழ்நாடு)

-2-

administrators legal representatives and assigns of the first part and Thiru. P. Ramasamy, S/o. Palanisamy Gounder, residing at, Veerankattu thottam, 63, Velampalayam, Palladam Taluk (hereinafter referred to as the "the registered holder / lessee" which expression shall where the context so admits shall include his heirs, executors, administrators, legal representatives and assigns) of the second part and the Governor of Tamil Nadu (hereinafter referred to as the Government which expression shall where the context so admits shall include also his successors in office and assigns) of the third part.

[Signature]

REGISTERED HOLDER

DISTRICT COLLECTOR
TIRUPPUR

[Signature]
REGISTERED HOLDER / LESSEE



[Signature]



भारतीय गैर न्यायिक

भारत INDIA

रु. 500

FIVE HUNDRED
RUPEES

पाँच सौ रुपये

Rs. 500

सत्यमेव जयते

INDIA NON JUDICIAL

தமிழ்நாடு தமில்நாடு TAMILNADU ரூ 500/-

N 489967

30511

23.11.2010

P. 0000000000

சென்னை மாவட்டம்
சென்னை, 15/10/93,
238 குமரக ரோடு,
-3- திருப்பூர்-1 (தமிழ்நாடு)

WHEREAS, the registered holders holds the lands described in the schedule hereto and intended to lease out to the lessee of the said lands for the purpose of quarrying Rough Stone and Gravel in the said lands and to deposit mining waste in the said lands and has lodged with the Collector the lease and accurate map or sketch of the said lands.

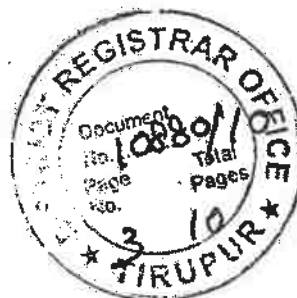
AND WHEREAS, the lessee or tenant of the registered holders have made application to the Collector of District of Tiruppur (herein after referred to as "the Collector") seeking grant of quarrying lease for quarrying Rough Stone and Gravel in the said lands and to deposit mining waste in the said lands and has lodged with the Collector an accurate map or sketch of the said lands.

L. Chennabali

REGISTERED HOLDER

DISTRICT COLLECTOR
TIRUPPUR

P. P. P. P.
REGISTERED HOLDER / LESSEE



AND WHEREAS, the Collector acting for and on behalf of the Government has granted a quarrying lease to the lessee or tenant of the registered holders and allowed them to commence quarrying operations for Rough Stone and Gravel in the said land to deposit mining waste thereon by lessee or tenant of the registered holders.

AND WHEREAS, the Collector is prepared to allow the said registered holders or lessees to commence mining operations and to deposit mining waste in or on the said lands described in the schedule for a term of five years period from 23.11.2010 To 22.11.2015 upon the registered holders and the lessees entering into the agreement herein contained.

AND WHEREAS, the tenant of registered holder has deposited with the Collector, the sum of Rs. 5000/- (Rupees Five Thousand only) (Ch. No. 136, date: 23.11.2010, State Bank of India, Treasury Branch, Tiruppur District) as security for the due performance of the covenants, agreements and provisos or damage which may be incurred by the Government by reason of any of the said lands described in the schedule hereto being rendered unfit for cultivation by the mining operations therein or by the deposit of mining waste thereon by either the registered holders or the lessees.

AND WHEREAS, the lessee has at the request of the registered holders and in consideration of such approval by the Collector of the mining operations as herein before recited agreed to join in these presents for the purpose of entering into covenants, agreements and provisos hereinafter contained as surety for the registered holders.

NOW THESE PRESENTS WITNESS and registered holders and the lessee do hereby jointly and severally and each of them doth individually hereby covenants and agree with the Government as follows:-

01. To carry on mining operations during the said term in a proper and workman like manner and to deposit mining waste on the lands described in the schedule hereto and to answer and to account at all reasonable times to Government for all acts and defaults committed by any servants, agents or workmen employed by the registered holders or lessee in carrying on such operations or in making such deposits.
02. To pay into Treasury/State Bank of India at Tiruppur to the credit of the Government in addition to the land assessment for the time being payable in respect of the said lands seigniorage on the minerals mined at the rates prescribed by the Government from time to time.
03. To abide by the rules prescribed by the Government from time to time regarding quarrying of minor minerals.
04. To keep correct accounts in such form as the Collector shall from time to time require and direct showing the quantities and other particulars of all minerals obtained by the registered holders or the lessees from the said lands and also the number or persons employed in carrying on the said mining operations therein and prepare and maintain from time to time when so directed by the said Collector complete and correct plans of all mines and working in the said lands and to allow any officer thereunto authorized by the (Director of Geology and Mining), Tamil Nadu, from time to time and at all times to examine such accounts and any such plans and to supply and furnish when so required all such information and returns all or any of the matters aforesaid as the Government may from time to time required and direct.
05. To allow any officer authorized by the (Director of Geology and Mining), Tamil Nadu in that behalf from time to time and at all times to enter upon any part of the said lands where mining operations may be carried on for the purpose or inspecting the same.

R. Dharmalal

REGISTERED HOLDER

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DISTRICT COLLECTOR
TIRUPPUR



23.11.2010



06. To Forthwith send to the Collector a report of any accident which may occur at or in the said land and also of the discovery therein of any minerals other than Rough Stone and Gravel.
07. Not to claim any remission of assessment in respect of any of the said lands which shall be rendered unfit for surface cultivation by the carrying on of any mining operations or by the deposit of mining waste unless thirty times of the assessment thereon has been deducted under provisos 2 hereunder.

PROVIDED ALWAYS and it is hereby further agreed by and between the parties as follows:

01. That it shall be lawful for the registered holders or lessees as the case may be at any time to cease mining operations under these provided the registered holders or lessees shall pay the Government or the Collector the land assessment, cess and seignior age payable by the registered holders or the lessee under these present unto to the end of the year in which the registered holders or the lessee shall cease such mining operations and shall restore the said lands fence or fill in the abandoned pits and excavations therein if required by the Collector as next hereinafter provided and upon, the registered holders or the lessee so doing these presents shall cease and determine.
02. That in case the registered holders shall relinquish the whole or part of the said lands in case of the expiry or sooner determination of this agreement then and in any such case, the registered holders in the case of relinquishment and the registered holders and the lessees in other cases shall restore said lands or the area relinquished or so much thereof as the Collector shall require to be restored to a state fit for cultivation and shall securely and permanently fence or fill in all abandoned pits and excavation therein as the Collector shall require to be fenced or filled in and incase the registered holders or the lessees shall fail, or neglect any such lands with the registered holders or the lessees be required to restore to a state fit for cultivation or to so fence or fill in any such abandoned pit or excavation which the registered holders or the lessees shall be required to so fence or fill them and in any such case it shall be lawful for the Collector to so restore any such lands or as the case may be so fence or fill in any pit excavation at the expense of the registered holders or lessees and to apply said sum of Rs. 5000/- so deposited in or towards the cost of so doing and to deduct from amount of the said deposit and retain on behalf of the Government a sum equal to thirty times the assessment of the said lands which shall have been rendered unfit for cultivation. If however the amount of deposit is not sufficient to cover the cost of such restoration or fencing or filling as the case may be or to meet thirty times the assessment of the area rendered uncultivated, it shall be lawful for the Government to recover the balance by resort to Civil court.
03. That all land assessment, cesses and seignior age payable under these presents shall be recoverable under the provisions of the Tamil Nadu Revenue Recovery Act, 1864 or any subsisting statutory modification thereof, as if the same were arrear of land revenue.
04. That in the event of any breach of the registered holders of any of the conditions of these presents it shall be lawful for the Government to levy enhanced seignior age subject to the maximum of five times the normal rate or for the Collector to give notice in writing to the registered holders of his intention to cancel these presents whereupon the same shall stand cancelled but without prejudice to any rights which the Government may have against the registered holders in respect of any antecedent claim or breach of covenant or condition.
05. That any notice to be given to registered holders may be addressed to their last know place of abode and where notice has been so addressed it shall be deemed to have been duly served for the purpose of these presents.

R. - Dharmalal
REGISTERED HOLDER

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DISTRICT COLLECTOR
TIRUPPUR

23.11.2010

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06. Should any question or dispute arise regarding an agreement executed in pursuance of these rules or any matter or thing connected therewith or the powers of the registered holders there under, the amount or payment of the seignior age fee or area assessment made payable thereby, the matter in issue shall be decided by the Director of Geology and Mining. In case the registered holders/lessees are not satisfied with decision of the Director of Geology & Mining, the matter shall be referred to the State Government.
07. The registered holder shall abide by the conditions laid down in the Payment of Wages Act, 1936 (Central Act IV of 1936), the Mines Act, 1952 (Central Act XXXV of 1952) and the Indian Explosives Act, 1884 (Central Act IV of 1884) and the rules made there under.

சிறப்பு நிபந்தனைகள்:-

குத்தகைப் புலத்தின் வடக்கு எல்லைப் பகுதியில் செல்லும் உயர்வின் அழுத்த கம்பிக்கு கண்டிப்பாக 50 மீட்டர் பாதுகாப்பு இடைவெளியிட்டு குவாரிப் பணி செய்ய வேண்டும்.

நிபந்தனைகள்:-

1. குத்தகைதாரர் தனக்கு அளிக்கப்பட்ட குத்தகை பகுதியின் எல்லைகளை தெளிவாக காட்டும் வகையில் கல் நட்டு வண்ணம் இட்டு குத்தகை காலம் முழுமைக்கும் பராமரிக்க வேண்டும்.
2. குத்தகையின் முழு விவரங்கள் அடங்கிய தகவல் பலகை வைத்தல் வேண்டும்.
3. குவாரிக்கு சென்றவரும் பாறை வசதிகள் குத்தகைதாரர்கள் அவர் தம் சொந்த பொறுப்பிலேயே அமைத்துக் கொள்ள வேண்டும்.
4. குத்தகை உரிமம் வழங்கப்பட்ட பகுதியில் சாதாரண கட்டுமான கல், ஐல்வி, அளவுக்கல் அளவிடாது வெருகட்ட கூடிய தகுதி வாய்ந்த ஆயுத கற்களை உடைக்கக் கூடாது.
5. குவாரியிலிருந்து கொண்டு செல்லப்படும் மேற்கண்ட வகை கற்களுக்கு 1959ம் ஆண்டு தமிழ்நாடு சிறகனிம சலுகை விதிகள் பின் இணைப்பு ஐஐ-ல் கண்டுள்ளவாறு உரிமவரி செலுத்த வேண்டும். அரக அல்லப்போது அறிவிக்கும் உரிமவரி மாற்றங்களுக்கு ஏற்ப எவ்வித ஆட்சேபணை இன்றி செலுத்துதல் வேண்டும்.
6. குத்தகை அனுமதி வழங்கப்பட்ட நிலத்திலிருந்து கொண்டு செல்லப்பட்ட கற்களுக்கு முறையான கணக்குகளும், குழியாயில் பதிவேடம் முறையாக பராமரித்தல் வேண்டும். அவற்றை சம்பந்தப்பட்ட அலுவலர்கள் தணிக்கைக்கு ஆஜரடுத்த கோரினால் தவறாது சமர்ப்பிக்க வேண்டும்.
7. உதவி இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை)ன் அலுவலக முத்திரை, கையொப்ப முத்திரையுடன் கூடிய உரிய அனுப்புமகச் சட்டை வாகனங்களுக்கு கொடுக்கப்படும் போது அனுப்புமகச் சட்டில் வாகன எண், தேதி, புறப்படும் நேரம், செலுத்துமிடம் ஆகியவற்றை முறையாகக் குறிப்பிட்டு கையொப்பம் இட்ட பின்னரே, குத்தகைதாரரோ அல்லது அவரது அனுமதி பெற்ற நபரோ கொடுக்க வேண்டும். மேற்கண்டவாறு குறிப்பிடுவதில் ஏதேனும் தவறுகள் இருந்தாலோ, கலங்கள் பூர்த்தி செய்யப்படாமல் இருந்தாலோ முறையற்ற வகையில் கனிமம் எடுத்துச் செல்வதாகக் கருதப்பட்டு வாகனத்தை கைப்பற்றி அபராதம் விதிப்பதோடு, அதற்கு குத்தகைதாரரை பொறுப்பாக்கி கனிம விதிகளின் படி மேல் நடவடிக்கை எடுக்கப்படும்.
8. இந்த ஆணையில் குத்தகை அனுமதி வழங்கப்பட்ட புலத்தை முழுமையாகவோ, பகுதியாகவோ எவருக்கும் உள் குத்தகைக்கு விடுவதோ அல்லது கிரையம் செய்வதோ கூடாது.
9. குத்தகைதாரர், தமக்கு குத்தகை வழங்கப்பட்ட பகுதிக்கு அருகில் உள்ள மட்டா நிலத்திற்கு எவ்வித இடையூறும் இல்லாமல் குவாரிப் பணி செய்யப்பட வேண்டும்.
10. வெடிபொருள் சட்டம் 1884ல் தெரிவிக்கப்பட்ட சரத்துக்கள் மற்றும் கீழ்க்காணும் நிபந்தனைகளின்படியும் குறைந்த அளவு வெடிபொருளை உபயோகித்து கற்கள் வெளியே சிதறாமலும், சத்தம் அதிகம் ஏற்படாமலும், பொதுமக்களுக்கும், கால்நடைகளுக்கும் எவ்வித பாதிப்பும் இன்றியும் கல்குவாரி பணி செய்யப்பட வேண்டும்.

- அ) கல்குவாரியில் ஒரு முறை வெடிப்பதற்கு மொத்த குழிகளிலும் உபயோகிக்கப்படும் / நிரப்பப்படும் வெடிமருந்தின் அளவு இரண்டு கிலோ கிராமிற்கு மிகாமல் இருக்க வேண்டும்.
- ஆ) ஒரு முறை வெடிக்கும் மொத்த குழிகளின் எண்ணிக்கை 10-க்கு மிகாமல் இருக்க வேண்டும்.

R. Dharmalakshmi

311

REGISTERED HOLDER



DISTRICT COLLECTOR
TIRUPPUR

23.11.2010

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- இ) சிறிய விட்டமுடைய (<50 மி.மீ) ஆயுதமுறை குழிகளை ஜாக்ஹான் மூலம் அமைத்து அடிப்பகுதியில் டெட்டனேட்டர் வைத்து வெடிக்கும் முறையை கடைப்பிடிக்க வேண்டும். மேலும், பெரிய / அகல விட்டமுடைய குழிகளை போர் (Wagon Drill) வாயிலாக அமைத்து கண்டிப்பாக வெடிக்க கூடாது.
- ஈ) டிஸை (delay) டெட்டனேட்டர்களை குழிகளின் அடிப்பகுதியில் அமைத்து (Bottom initiation) கல்குவாரிகளில் வெடிக்க வேண்டும்.
- உ) முதலில் வெடி வைத்து பெயர்ந்து வந்த பெரிய கற்களை சிறிதாக்க மீண்டும் இரண்டாவது முறையாக வெடி வைக்கக் கூடாது.
- ஊ) அருகாமையில் உள்ள குடியிருப்புகளுக்கும், பொதுமக்களுக்கும் எவ்வித பாதிப்பும் ஏற்படா வண்ணம் கட்டுப்பாடான முறையில் (உழவெசுழுட்டநள டிடயளவபெ அநலாழன) அதாவது கல்குவாரியில் வெடி வைக்கும் பரப்பினை தண்ணிரால் ஈரப்படுத்தியும், குறைந்தளவு வெடி மருந்துகள் நிரப்பப்பட்ட குழிகள் மீது மண் மூட்டைகள், பழைய கோணிப்பைகள், டயர்கள் மற்றும் கள்வேயர் பெல்ட்டுகளை அமைத்து மட்டில் (Muffle blasting) முறையில் வெடி வைத்து குவாரிப்பணி செய்யலாம்.
- எ) வெடிபொருள்கள் அரசு உரிமம் பெற்ற விற்பனைதாரரிடம் மட்டுமே பெற்று வெடிப்பதற்கு உரிமம் / அங்கீகாரம் பெற்ற வெடிப்பாளர்களை (Blaster/ Mines mate) கொண்டு கல் குவாரியில் வெடி வைக்க வேண்டும்.

11. மேற்கூறப்பட்ட நிபந்தனை, மற்றும் கனிம விதிகளை மீறியுள்ளது உறுதியும் தருணத்தில் விதிமுறைகளுக்கு உட்பட்டு குத்தகை இரத்து செய்ய நடவடிக்கை எடுக்கப்படும். மேற்கண்ட நிபந்தனைகள் ஒப்பந்தப் பத்திரத்தில் கண்டுள்ள நிபந்தனைகள் மற்றும் 1959-ம் ஆண்டு தமிழ்நாடு சிறுசுருக விதிகள் ஆகியவற்றின் அடிப்படையில் குத்தகைதாரர் குவாரிப் பணி புரிய வேண்டும்.

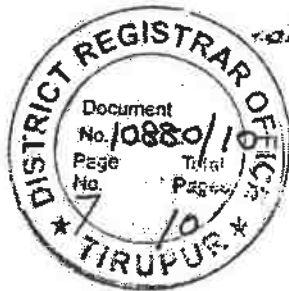
For the purpose of calculating stamp duty the anticipated seigniorage fee for Gravel is Rs. 1,89,000/- and Rough Stone for Five years is estimated as Rs. 3,78,000/- totally Rs. 5,67,000/- (Rupees Five lakhs and sixty seven thousands only).

R. Dharmalingam

REGISTERED HOLDER

DISTRICT COLLECTOR
TIRUPPUR

P. Ramesh
REGISTERED HOLDER / LESSEE



THE SCHEDULE

1. Name of the District : Tiruppur
 2. Name of the Taluk : Tiruppur
 3. Name of the Village : Iduvai
 4. Name of the Sub Registration District : Tiruppur
 5. Lease Period : 5 years

From 23.11.2010 to 22.11.2015.

Survey Number	Total Extent Hects.	Area Assessment Rs.	BOUNDARIES			
			North By SF No.	East by SF No.	West by SF No.	South by SF No.
286/1	2.71.5	272	276	286/2	285	287 and 288

IN WITNESS Tmt. R. Dhanalakshmi, W/o. Ramasamy, residing at Veerankattu thottam, 63, Velampalayam, Palladam Taluk, Tiruppur District 'the registered holder' and Thiru. P. Ramasamy, S/o. Palanisamy Gounder, residing at, Veerankattu thottam, 63, Velampalayam, Palladam Taluk 'the registered holder / lessee' and Thiru. C. SAMAYAMOORTHY, I.A.S., District Collector, Tiruppur acting for and on behalf of and by the order and direction of the Governor of Tamil Nadu have hereunto set their hands.

R. Dhanalakshmi

REGISTERED HOLDER

P. Ramasamy
 REGISTERED HOLDER / LESSEE

23.11.10 9/10
 DISTRICT COLLECTOR
 TIRUPPUR

Signed by the above named
 In the presence of

1. *[Signature]*
 (R. Gunasekaran, m-94
 m-94, Housing unit,
 Narayana Valsar,
 Erode-11.)

2. *[Signature]*

(S. Sankaran
 16/ Maziyam Kovi St
 K. P. R. S.
 Madurai - 7)

Signed by the above named
 In the presence of

1. *[Signature]* (S. Sattanathan Sankar)
 ASSISTANT DIRECTOR
 Geology and Mining
 Tiruppur.

2.

[Signature]
 (S. Sattanathan Sankar)
 Assistant Director
 Geology and Mining
 Tiruppur.

[Signature]
 Assistant Director
 Geology and Mining
 Tiruppur.





புறவட்டம்: கலையிப்பந்தூர்

உ.ம. பல்படம் திருச்சூர்

அராமம்

எண். 25 11.

பெயர். இலையம்

பரப்பு: ஹெக்டேர் 5 ஏர். 27.5

புல எண். 286

275

0.611

137.0

2

(2.152)

2.25

287

B

0.68

3

(9.902)

14.2 (227.0)

16.2

16.2

16.2

288

276

167.4

(2.102)

0.41

R. Chantalabel
REGISTERED HOLDER

P. Kumar
REGISTERED HOLDER / LESSEE

DISTRICT COLLECTOR
TIRUPPUR

ASSISTANT DIRECTOR
Geology and Mining
Tiruppur.



உத்யோகத்திற்கு
சமீபம் வந்ததில்
187-2.71.5

முதலாளி

For Tensing
Tiruppur

14.9.10
திருச்சூர் திருவள்ளூர் அலுவலகம்
11, இலையம் அராமம்
திருச்சூர் வட்டம்



भारतीय गैर न्यायिक INDIA NON JUDICIAL

भारत

5000

रु.5000

Rs.5000

पाँच हजार रुपये

FIVE THOUSAND RUPEES

सत्यमेव जयते

INDIA

6 तमिलनाडु TAMILNADU रु. 5000/-

T 721808

T 721808

V. P. रामசாமி.

எம். டிகாஸ்குமி
எம். டிகாஸ்குமி
உரியம் எண். 15/1993,
238, குமரகி ரோடு,
திருப்பூர்-1 (குமிழ்நாடு)

2016

APPENDIX - IV

(See Rule 19(1) and 22)

SEIAA-TN, Chennai- 15, Environment Clearance Letter No. SEIAA - TN / 4979 / EC / 1 (a) / 2851 / 2015 dated 15.2.2016.

Consent letter issued by the DEE, TNPCB, Tiruppur North consent order No. F / 1301 TPB / RS / DEE / TNPCB / TPN / W & A / 2015 dated 2.5.2016.

Tiruppur District Collector's Proc. Ref. No. 658 / Mines / 2015 dated 14.6.2016.

Stamp Duty Calculation:-

1. Anticipated S. Fee for stone Rs. 45 / cbm @ 37475 x 45 :	16,86,375/-
2. Anticipated S. Fee for Gravel Rs. 25/ Cbm @ 9894 x 25 :	2,47,350/-
3. Security Deposit	5,000/-
4. Area Assessment for 5 years	795/-

Total : 19,39,520/-

**FORM OF AGREEMENT FOR QUARRYING AND CARRYING AWAY MINOR MINERALS
(ROUGH STONE / GRAVEL) FROM RYOTWARI LANDS IN WHICH THE MINERALS
BELONG TO GOVERNMENT**

AGREEMENT made this 22nd day of JUNE 2016 between Thiru. V.P. Ramasamy, O. Palanisamy Gounder, residing at Veerankattu Thottam, 63, Velampalayam village, Alladam Taluk, Tiruppur District (hereinafter referred to as 'the registered holder / lessee' which term shall include in these presents where the context so admits include also his heirs, executors administrators legal representatives and assigns) of the one part and the

P. Ramasamy
REGISTERED HOLDER / LESSEE



2/18
DISTRICT COLLECTOR,
TIRUPPUR.



भारतीय गैर न्यायिक INDIA NON JUDICIAL

भारत

5000

रु.5000

Rs.5000

पाँच हजार रुपये

FIVE THOUSAND RUPEES

INDIA

தமிழ்நாடு TAMILNADU ரூ-5000/- T 721809

V. P. ராமசாமி. எம்.மகாலட்சுமி
எட்டாம்பு வெண்டர்.
உரிமம் எண். 15/1993.
238, குமரன் ரோடு.
திருப்பூர்-1 (தமிழ்நாடு)

-2-

Governor of Tamil Nadu (hereinafter called "the Government" which term shall where the context admits, include also his successors in office and assigns) of the other part.

WHEREAS, the registered holder holds the lands described in the schedule hereunder (herein after referred to as the said lands)

AND WHEREAS, the registered holder has made an application to the Collector of District Tiruppur (herein after referred to as "the Collector") seeking grant of quarrying lease for quarrying Rough Stone and Gravel in the said lands and to deposit mining waste in the said lands and has lodged with the Collector an accurate map or sketch of the said lands.

P. Ramu
REGISTERED HOLDER / LESSEE

S. M. S.
DISTRICT COLLECTOR,
TIRUPPUR. 4/18



भारतीय गैर न्यायिक INDIA NON JUDICIAL

रु.5000

Rs.5000

पाँच हजार रुपये

FIVE THOUSAND RUPEES

INDIA

தமிழ்நாடு TAMILNADU ரூ.5000/-

T 721810

T 721810

1 V. P. ராஜசாமி.

எம். டி. கால்குமி
ஸ்டாம்பு வெண்டர்.
உரிமம் எண். 15/1993,
238, குமரன் ரோடு,
திருப்பூர்-1 (தமிழ்நாடு)

2016 63- டிஸ்ட் பாண்டம்

-3-

AND WHEREAS, the Collector acting for and on behalf of the Government has granted a quarrying lease to the registered holder and allowed him to commence quarrying operations for Stone and Gravel in the said land to deposit mining waste thereon by the registered holder.

AND WHEREAS, as the registered holder has deposited with the Collector, the sum of 5000/- (Chalan No. 359, Dated : 17.6.2016, State Bank of India, Tiruppur) as security against loss or damage which may be incurred by the Government by reason of any of the said lands being rendered and unfit for cultivation by any mining operations therein of the registered holder or by deposit of mining waste thereon by the registered holder.

THESE PRESENTS WITNESS and the registered holder both hereby agree with the Government in the manner following that is to say:

REGISTERED HOLDER / LESSEE

DISTRICT COLLECTOR,
TIRUPPUR.







The registered holder cum lessee has paid a sum of Rs. 795/- (Rupees Seven hundred and ninety five only) towards Land assessment / Area assessment @ Rs. 100/- per Hectare per year, in total Rs. 795/- for the entire lease granted area over an extent of 1.59.0 Hect. in one lumpsum for the whole period of lease (5 years) vide Chalan No. 130, Dated : 17.6.2016, State Bank of India, Tiruppur so long as he shall have carried on any such mining operation as aforesaid pay to the Collector for and on behalf of the Government in addition to the land assessment for the time being payable in respect of the said lands seigniorage on the minor minerals at the rates specified in the Appendix II to the Tamil Nadu Minor Mineral Concession Rules, 1959.

The registered holder shall and will keep correct accounts in such form as the Collector shall from time to time require and direct showing the quantities and other particulars of all minerals obtained by the registered holder from the said lands and also the number of persons employed in carrying on the said mining operations therein and shall from time to time when so directed by the Collector prepare and maintain complete and correct plans of all mines and working in the said lands and shall allow any officer hereunto authorized by the Commissioner / Director of Geology and Mining, Tamil Nadu from time to time and at any time to examine such accounts and any such plans and shall when so required supply and furnish all such information and returns regarding all or any of the matter aforesaid as the Government shall, from time to time required and direct.

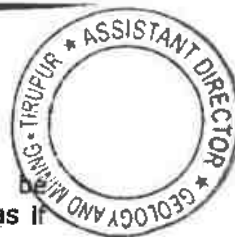
The Registered holder shall and will at all times, allow any officer authorized by the Commissioner / Director Geology and Mining, Tamil Nadu in that behalf to enter upon any part of the lands where any mining operations may be carried on for the purpose of inspecting the same.

The registered holder shall forthwith send to the District Collector a report of any accident, which may occur at or in the said lands and also of the discovery of any mineral other than Rough Stone and Gravel.

In case the registered holder shall relinquish the whole or any part of the said lands or in case of the expiry or sooner determination of this agreement then and in any such case, he shall restore the lands so relinquished or so much thereof as the Collector shall require to be restored to a state fit for cultivation or shall securely and permanently fence or fill in all such abandoned pits and excavations therein as the Collector shall require to be so fenced or filled in, and in case the registered holder shall fail or neglect to restore any such land which he shall be required to restore to a state fit for cultivation or to so fence, or fill in any such abandoned pit or excavation which he shall be required to so fence or fill in them in any such case, it shall be lawful for the Collector to so restore any such land, or as the case may be to so fence or fill any such pits or excavation at the expense of the registered holder and to apply the said sum of Rs.5000/- so deposited in or towards the cost of so doing and to deduct from the amount of the said deposit and retain on behalf of the Government a sum equal to thirty times the assessment of the said lands which shall have been rendered unfit for cultivation. If however, the amount of deposit is not sufficient to cover the cost of such restoration or fencing or filling in or to meet thirty times the assessment on the area rendered uncultivable, it shall be lawful for the Government to recover the balance by resort to Civil Court.

The registered holder shall not be entitled to any remission of assessment in respect of any of the said lands which shall be rendered unfit for surface cultivation by carrying on of any mining operation or by the deposit of mining waste, unless thirty times the assessment thereon has already been deducted under the preceding clause.

The registered holder shall not assign, lease or part with the possession of the said lands or any part thereof for the whole or any part of the said term without previous intimation in writing to the Collector.



All lands assessment, cess and seigniorage payable under these present shall be recoverable under the provisions of the Tamil Nadu Revenue Recovery Act, 1864, as if they were arrears of land revenue.

11. In the event of any breach by the registered holder by any of the conditions of this agreement, it shall be lawful for the Government to levy enhanced seigniorage or for the Collector give notice in writing to the registered holder of his intention to cancel these presents where upon the same shall stand cancelled but without prejudice to any rights which the Government may have against pattadar in respect of any antecedent claim or breach of covenant or condition.
12. Any notice to be given to the registered holder may be addressed to their last known place of abode and where a notice has been so addressed it shall be deemed to have been duly served for the purpose of these presents.
13. Should any question or dispute arise regarding the agreement executed in pursuance of these rules or any matter or thing connected therewith or the powers of the registered holder there under, the amount or payment of the seigniorage fee or area assessment made payable thereby, the matter in issue shall be decided by the Director / Commissioner of Geology and Mining. In case the registered holder / lessee is not satisfied with the decision of the Director / Commissioner of Geology and Mining, the matter shall be referred to the State Government for decision.
14. The registered holder shall abide by the conditions laid down in the payment of Wages Act 1936, (Central Act IV of 1936), the Mines Act, 1952 (Central Act XXXV of 1952) and the Indian Explosives Act, 1884 (Central Act IV of 1884).

Conditions Imposed in the Environment Clearance letter by the State Level Environment Impact Assessment Authority - Tamil Nadu (SEIAA-TN) in respect of lease granted area:-

I. Condition to be complied before commencing quarry operation

1. The project proponent shall advertise in at least two local newspaper widely circulated in the region, one of which shall be in the vernacular language informing the public that,
 - i. The project has been accorded Environment Clearance
 - ii. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board
 - iii. Environment Clearance may also be seen on the website of the SEIAA
 - iv. The advertisement shall be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.
2. The applicant has to obtain land use classification as industrial use before issue / renewal of mining lease.
3. NOC from the Standing Committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the Proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Mineral Concession Rules, 1959.

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5. A copy of the Environmental Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat Union, Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7 AM and 5 PM
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
13. A minimum distance of 15 m from any civil structure shall be kept from the periphery of any excavation area.
14. Depth of quarrying shall be 2m above the ground water table / approved depth of mining whichever is lesser to be considered as a safe guard against Environmental Contamination and over exploitation of resources.
15. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
16. Wet drilling method is to be adopted to control dust emission. Delay detonator and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
18. The explosives shall be stored at site as per the conditions stipulated in the permits issued by the licensing authority.
19. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
20. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
21. The proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF, Govt on 16.11.2009.


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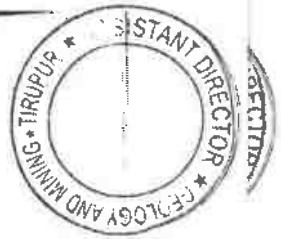
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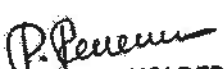

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22. The following measures are to be implemented to reduce Air Pollution during transportation of mineral.
 - i. Roads shall be graded to mitigate the dust emission.
 - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust.
23. The following measures are to be implemented to reduce Noise Pollution
 - i. Proper and regular maintenance of vehicle and other equipment.
 - ii. Limiting time exposure of workers to excessive noise.
 - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
 - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
24. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.1.2010 issued by the MoE&F, GoI to control noise to the prescribed level.
25. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
26. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
27. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
28. The following measures are to be adopted to control erosion of dumps:-
 - i. Retention / toe walls shall be provided at the foot of the dumps.
 - ii. Worked out slopes are to be stabilized by planting appropriate shrub / grass species on the slopes.
29. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and trans boundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by TNPCB.
30. Concealing the factual date or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
31. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
32. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.

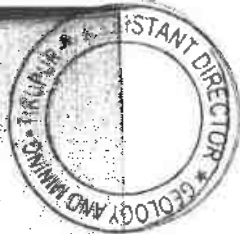

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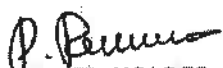


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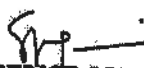


The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. At any stage, if it is observed that the ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/

4. No tree-felling shall be done in the leased area, except only with the permission from competent authority.
5. To Take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air and flora / fauna environment, slurry water generated / disposed and method of disposal, involving a reputed academic institution.
6. It shall be ensured that the total extent of nearby quarries (existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 25 hectares within the mining lease period of this application.
7. It shall be ensured that there is no habitation is located within 500 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 500 m radius from the periphery of the quarry site.
8. Ground water quality monitoring should be conducted once in 3 months.
9. Transportation of the quarries material shall not cause any hindrance to the village people / existing village road.
10. Free silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF, GOI.
11. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF, GOI..
12. Bunds to be provided at the boundary of the project site.
13. Ground water quality monitoring should be conducted once in 3 months.
14. The project proponent shall undertake plantation/ afforestation work by planting the native species on all side of the lease area at the rate of 400 / Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
15. At least 10 neem trees should be planted around the boundary of the quarry site.
16. Floor of excavated pit to be leveled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
17. The project proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR activity.
18. The project proponent shall provide solar lighting system to the nearby villages.
19. The project proponent shall comply with the mining and other relevant rules and regulations where ever applicable.
20. Rainwater shall be pumped out via settling tank only


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1. Eastern bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
2. As per MoEF& CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wild life angle including clearance from obtaining committee of the National Board for Wild Life as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10 KM from National Park and Sanctuaries.
3. The quarrying activity shall be stopped if the entire quantity indicated in the Mining Plan is quarried even before the expiry of the quarry lease period and the same shall be monitored by the District Authorities.
4. Safety equipments to be provided to all the employees.
5. Safety distance of 50 mts has to be provided in case of railway, reservoir, canal / odai.

General conditions imposed in the Environment Clearance letter by the State Level Environment Impact Assessment Authority - Tamil Nadu (SEIAA-TN) in respect of lease granted area:-

1. EC is given only on the factual records, documents and details furnished by the Proponent.
2. The Proponent shall obtain the Consent for establishment from the TNPC Board before the commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particular matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to least half the depth of proposed excavation.
8. Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emission shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.

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All personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves, etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any constructions due to exposure to dust and take corrective measures, if needed.

12. Periodical medical examination of workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers / labourers shall be provided with facilities for drinking water and sanitation facility for female and male separately.
14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Officer located at Chennai.
16. The Environmental Clearance does not absolve the applicant / proponent of his obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance.
18. The SEIAA, TN may alter / modify the above conditions or stipulate any further condition in the interest of environment protection.
19. The SEIAA, TN may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and / or submitted false or misleading information or inadequate data for obtaining the environmental clearance.
20. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
21. The above conditions will be enforced Inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India / Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.
22. Any other conditions stipulated by other statutory / Government authorities shall be complied.

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Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



Tamil Nadu Pollution Control Board (TNPCB) Conditions to be complied

The Condition imposed by the District Environment Engineer, Tamil Nadu Pollution Control Board, Tiruppur (South) in his consent order No. F. 1301 TPN / RS / DEE / TNPCB / TPN / A / 2015 dated 2.5.2016 and consent order No F. 1301 TPN / RS / DEE / TNPCB / TPN / W / 2015 dated 2.5.2016 should strictly be followed without any deviation. Further the lessee has to renew the consent order from time to time whenever the consent is expired.

Special Condition imposed by the District Collector, Tiruppur in respect of Lease granted area

1. மாநில சுற்றுச் சூழல் செயல் மதிப்பீட்டு அதிகார அமைப்பு (SEIAA) வழங்கிய சுற்றுச் சூழல் தடையின்மைச் சான்றிதழில் தெரிவிக்கப்பட்டுள்ள அனைத்து நிபந்தனைகளையும் பின்பற்றி கல் மற்றும் கிராவல் குவாரிப் பணி செய்யப்பட வேண்டும்.
2. குத்தகை ஒப்புநதப் பத்திரம் நிறைவேற்றப்படும் நாள் குவாரிப்பணி தொடங்கப்படும் முதல் நாளாக கருதப்பட்டு அன்றைய தினத்திலிருந்து 5 ஆண்டுகள் மட்டுமே SEIAA வழங்கிய தடையின்மைச் சான்று செல்லத்தக்கது. அதன் பின்னர் குவாரிப்பணி செய்ய மீண்டும் SEIAA ஒப்புதல் பெற வேண்டும்.
3. உரிமம் வழங்கப்பட்ட பகுதியில் மட்டுமே கற்கள் மற்றும் கிராவல் வெட்டியெடுக்கப்பட வேண்டும். வெட்டியெடுக்கும் கற்களுக்கு உரிய சீனியரேஜ் தொகை செலுத்தி முறையான அனுமதிச்சீட்டு பெற்று எடுத்துச் செல்ல வேண்டும்.
4. அனுமதி வழங்கப்படாத பிறர் பட்டா நிலங்கள், அரசுப் புறம்போக்கு நிலங்கள் போன்றவற்றில் எக்காரணம் கொண்டும் கற்கள் வெட்டியெடுக்கக் கூடாது.
5. உரிமம் வழங்கப்பட்ட பகுதிக்கு வழங்கப்படும் நடைச்சீட்டுகளை அனுமதியில்லாத பிற இடங்களில் உடைக்கும் கற்களை எடுத்துச் செல்ல பயன்படுத்தக் கூடாது. அவ்வாறு அனுமதிச் சீட்டு தவறாக பயன்படுத்தப்படுவது பின்னர் கண்டறியப்பட்டால் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி 36-A (1)ன்படி அபராத நடவடிக்கை மற்றும் குத்தகை உரிமம் ரத்து போன்ற நடவடிக்கைகள் மேற்கொள்ளப்படும்.
6. தற்போது அரசால் தடை செய்யப்பட்டுள்ள அம்மோனியம் நைட்ரேட் என்கிற வெடி உப்பு + டீசல் கலந்து உலர வைக்கப்பட்ட வெடி பொருளை அரவே பயன்படுத்தக் கூடாது.
7. அனுமதி வழங்கப்பட்ட பின் கற்குவாரியில் பாறையை உடைக்க / தகர்க்க தோட்டா எனப்படும் (Galeton stick) கேப் எனப்படும் டெட்டனேட்டர் (Detonator) ஆகிய வெடி பொருட்களை மட்டும் பயன்படுத்தி அருகில் உள்ள விவசாய நிலங்களுக்கு பாதிப்பு ஏற்படாத வண்ணம் குவாரிப்பணி செய்ய வேண்டும்.
8. பிரஸ்தாப புலத்தில் உள்ள குவாரியிலிருந்து உடைத்தெடுக்கப்படும் கற்களை வெளியே கொண்டு செல்லும் போது, வழியில் செல்லும் பிற இரு சக்கர வாகனங்கள் மற்றும் பாதசாரிகளுக்கு எவ்வித இடையூறும் செய்யாமல் குறைந்த வேகத்தில் வாகனங்களை ஓட்டி கனிமங்களை எடுத்துச் செல்ல வேண்டும்.
9. உரிமம் வழங்கக் கோரும் குவாரிக்கு தமிழ்நாடு மாகாணக்குப்பாட்டு வாரிய சுற்றுச் சூழல் பொறியாளர் வழங்கியுள்ள ஒப்புதல் கடிதத்தில் தெரிவித்துள்ள அனைத்து நிபந்தனைகளையும் மிகச் சரியாக பின்பற்றி குவாரிப்பணி செய்திடல் வேண்டும்.
10. இக்குவாரிக்கு தமிழ்நாடு மாகாணக்குப்பாட்டு வாரிய சுற்றுச் சூழல் பொறியாளர் வழங்கியுள்ள ஒப்புதல் கடிதம் 30.6.2017 வரை மட்டுமே செல்லத்தக்கது. குவாரி உரிம கரலமான 5 ஆண்டுகளிலும் இவ்வொப்புதல் செல்லுபடியாகும் காலம் முடிவடையும் முன்னரே மீண்டும் புதுப்பித்து தொடர்ந்து தமிழ்நாடு மாகாணக்குப்பாட்டு வாரிய ஒப்புதல் நடைமுறையில் இருக்கும்படி வைத்துக் கொள்ள வேண்டும். மாவட்ட சுற்றுச்சூழல் பொறியாளர் ஒப்புதலை புதுப்பித்து சமர்ப்பிக்கத் தவறும் பட்சத்தில் இக்குவாரிக்கு நடைச்சீட்டு வழங்குவதை நிறுத்தி வைக்க நடவடிக்கை மேற்கொள்ளப்படும்.

P. Perumal
REGISTERED HOLDER / LESSEE

SM
DISTRICT COLLECTOR,
TIRUPPUR.





General Conditions stipulated in Tamil Nadu Minor Mineral Concession Rules 1959 in respect of Lease granted area

குத்தகைதாரர் தனக்கு அளிக்கப்பட்ட குத்தகை பகுதியின் எல்லைகளை தெளிவாக காட்டும் வகையில் கல் நட்டு வண்ணம் இட்டு குத்தகை காலம் முழுமைக்கும் பராமரிக்க வேண்டும்.

குத்தகையின் முழு விவரங்கள் அடங்கிய தகவல் பலகை வைத்தல் வேண்டும்.

குவாரிக்கு சென்று வரும் பாதை வசதிகள் குத்தகைதாரர்கள் அவர்தம் சொந்த பொறுப்பிலேயே அமைத்துக் கொள்ளவேண்டும்.

குத்தகை உரிமம் வழங்கப்பட்ட பகுதியில் சாதாரண கட்டுமான கல், ஐல்லை, அளவுக்கல், கல் தூண் போன்றவைகளை மட்டுமே உடைக்க வேண்டும். ஏற்றுமதிக்குரிய பெரிய கனமீட்டர் அளவிலான மெருகூட்ட கூடிய தகுதி வாய்ந்த ஆபரண கற்களை உடைக்கக் கூடாது.

குவாரியிலிருந்து கொண்டு செல்லப்படும் மேற்கண்ட வகை கற்களுக்கு 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் பின் இணைப்பு II-ல் கண்டுள்ளவாறு உரிமவரி செலுத்த வேண்டும். அரசு அவ்வப்போது அறிவிக்கும் உரிம வரி மாற்றங்களுக்கு ஏற்ப எவ்வித ஆட்சேபணை இன்றி செலுத்துதல் வேண்டும்.

குத்தகை அனுமதி வழங்கப்பட்ட நிலத்திலிருந்து கொண்டு செல்லப்பட்ட கற்களுக்கு முறையான கணக்குகளும், குழிவாயில் பதிவேடும் முறையாக பராமரித்தல் வேண்டும். அவற்றை சம்பந்தப்பட்ட அலுவலர்கள் தணிக்கைக்கு ஆஜர்படுத்த கோரினால் தவறாது சமர்ப்பிக்க வேண்டும்.

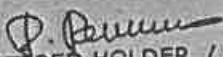
உதவி இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை)-ன் அலுவலக முத்திரை, கையொப்ப முத்திரையுடன் கூடிய உரிய அனுப்புகைச் சீட்டை வாகனங்களுக்கு கொடுக்கப்படும் போது அனுப்புகைச் சீட்டில் வாகன எண், தேதி, புறப்படும் நேரம், செலுத்துமிடம் ஆகியவற்றை முறையாகக் குறிப்பிட்டு கையொப்பம் இட்ட பின்னரே, குத்தகைதாரரோ அல்லது அவரது அனுமதி பெற்ற நபரோ கொடுக்க வேண்டும். மேற்கண்டவாறு குறிப்பிடுவதில் ஏதேனும் தவறுகள் இருந்தாலோ, கலங்கள் பூர்த்தி செய்யப்படாமல் இருந்தாலோ முறையற்ற வகையில் கனிமம் எடுத்துச் செல்வதாகக் கருதப்பட்டு வாகனத்தை கைப்பற்றி அபராதம் விதிப்பதோடு, அதற்கு குத்தகைதாரரை பொறுப்பாக்கி கனிம விதிகளின் படி மேல் நடவடிக்கை எடுக்கப்படும்.

இந்த ஆணையில் குத்தகை அனுமதி வழங்கப்பட்ட புலத்தை முழுமையாகவோ, பகுதியாகவோ எவருக்கும் உள் குத்தகைக்கு விடுவதோ அல்லது கிரையம் செய்வதோ கூடாது.

குத்தகைதாரர், தனக்கு குத்தகை வழங்கப்பட்ட பகுதிக்கு அருகில் உள்ள பட்டா நிலத்திற்கு எவ்வித இடையூறும் இல்லாமல் குவாரிப் பணி செய்யப்படவேண்டும்.

வெடிபொருள் சட்டம் 1884ல் தெரிவிக்கப்பட்ட சரத்துக்கள் மற்றும் கீழ்க்காணும் நிபந்தனைகளின்படியும் குறைந்த அளவு வெடிபொருளை உபயோகித்து கற்கள் வெளியே சிதறாமலும், சத்தம் அதிகம் ஏற்படாமலும், பொதுமக்களுக்கும், கால்நடைகளுக்கும், எவ்வித பாதிப்பும் இன்றியும் கல்குவாரி பணி செய்யப்பட வேண்டும்.

- அ) கல் குவாரியில் ஒருமுறை வெடிப்பதற்கு மொத்த குழிகளிலும் உபயோகிக்கப்படும் / நிரப்பப்படும் வெடிமருந்தின் அளவு இரண்டு கிலோகிராமிற்கு மிகாமல் இருக்கவேண்டும்.
- ஆ) ஒரு முறை வெடிக்கும் மொத்த குழிகளின் எண்ணிக்கை 10-க்கு மிகாமல் இருக்கவேண்டும்.
- இ) சிறிய விட்டமுடைய (<50 மி.மீ) ஆழ்துளை குழிகளை ஜாக்ஹாம்ஸ் மூலம் அமைத்து அடிப்பகுதியில் டெட்டனேட்டர் வைத்து வெடிக்கும் முறையை கடைப்பிடிக்க வேண்டும். மேலும், பெரிய/ அகல விட்டமுடைய குழிகளை போர் (Wagon Drill) வாயிலாக அமைத்து கண்டிப்பாக வெடிக்க கூடாது.
- ஈ) டிலை (delay) டெட்டனேட்டர்களை குழிகளின் அடிப்பகுதியில் அமைத்து (Bottom initiation) கல்குவாரிகளில் வெடிக்க வேண்டும்.


REGISTERED HOLDER / LESSEE


DISTRICT COLLECTOR,
TIRUPPUR.





- உ) முதலில் வெடி வைத்து பெயர்ந்து வந்த பெரிய கற்களை சிறிதாக்க மீண்டும் இரண்டாவது முறையாக வெடி வைக்கக் கூடாது.
- ஊ) அருகாமையில் உள்ள குடியிருப்புகளுக்கும், பொதுமக்களுக்கும் எவ்வித பாதிப்பும் ஏற்படா வண்ணம் கட்டுபாடான முறையில் (controlled blasting method) அதாவது கல்குவாரியில் வெடிவைக்கும் பரப்பினை தண்ணீரால் ஈரப்படுத்தியும், குறைந்தளவு வெடிமருந்துகள் நிரப்பப்பட்ட குழிகள் மீது மண் மூட்டைகள், பழைய கோணிப்பைகள், டயர்கள் மற்றும் கள்வேயர் பெல்ட்டுகளை அமைத்து மஃபுல் (Muffle blasting) முறையில் வெடி வைத்து குவாரிப்பணி செய்யலாம்.
- எ) வெடிபொருள்கள் அரசு உரிமம் பெற்ற விற்பனைதாரரிடம் மட்டுமே பெற்று வெடிப்பதற்கு உரிமம் /அங்கீகாரம் பெற்ற வெடிப்பாளர்களை (Blaster/ Mines mate) கொண்டு கல் குவாரியில் வெடி வைக்க வேண்டும்.

மேற்கூறியிட்ட நிபந்தனை, மற்றும் கனிமவிதிகளை மீறியுள்ளது உறுதியும் தருணத்தில் திழுவைகளுக்கு உட்பட்டு குத்தகை இரத்து செய்ய நடவடிக்கை எடுக்கப்படும். மேற்கண்ட நிபந்தனைகள் மீறல் பத்திரத்தில் கண்டுள்ள நிபந்தனைகள் மற்றும் 1959-ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் கியவற்றின் அடிப்படையில் குத்தகைதாரர் குவாரிப் பணிபுரிய வேண்டும்.

For the purpose of calculating stamp duty the anticipated seigniorage fee for Rough Stone and Gravel for Five years is estimated as Rs. 19,33,725/- Security Deposit of Rs. 5000/- and Area assessment for five years Rs. 795/- all together comes Rs. 19,39,520/- (Rupees Nineteen lakhs thirty nine thousand five hundred and twenty only) is taken for the calculation of stamp duty to register the document at the respective Sub-registrar Office.

P. Perumal
REGISTERED HOLDER / LESSEE

SM
DISTRICT COLLECTOR,
TIRUPPUR.

16/18



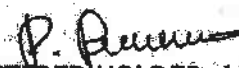
186

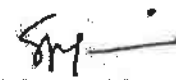
THE SCHEDULE

Name of the District : Tiruppur
 Name of the Taluk : Tiruppur (South)
 Name of the Village : Iduvai
 Name of the Sub Registration District : Tiruppur
 Lease Period : 5 years
 From 22.6.2016 to 21.6.2021
 Area assessment for 5 years : Rs. 159/- @ 5 lease year
 Rs. 795/- remitted in one chalan.

Survey Number	Total Extent Hects.	Applied & lease granted extent in Hect.	BOUNDARIES			
			North By SF No.	East by SF No.	West by SF No.	South by SF No.
286/1 (Western Part)	2.71.5	1.59.0	276	286/1 (Eastern part)	285	288

IN WITNESS WHEREOF Thiru. V.P. Ramasamy, S/o. Palanisamy Gounder, residing at Veerankattu Thottam, 63, Velampalayam village, Palladam Taluk, Tiruppur District the registered holder / lessee and Tmt. S. JAYANDHI, I.A.S., District Collector, Tiruppur acting for and on behalf of and by the order and direction of the Governor of TamilNadu have hereunto set their hands.


 REGISTERED HOLDER / LESSEE


 DISTRICT COLLECTOR,
 TIRUPPUR.

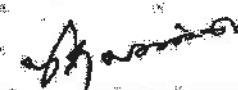
Signed by the above named in the presence of

1. S. Suresh
(S. Suresh),
S/o. Subramani,
1/165, Kalampalayam,
Pongupalayam, Tiruppur.

2. P. Durai
(P. Durai),
S/o. Palanisamy,
6/101, Thirumala
Kondasagar,
Thiruvannamalai Poondi.

Signed by the above named in the presence of

1. B. Suresh
DEPUTY DIRECTOR
Geology and Mining
Tiruppur

2. 
தனி வருவாய் அய்வாளர் (தரப்பம்)
புதியியல் மற்றும் சுரங்கத்துறை
திருப்பூர் மாவட்டம்

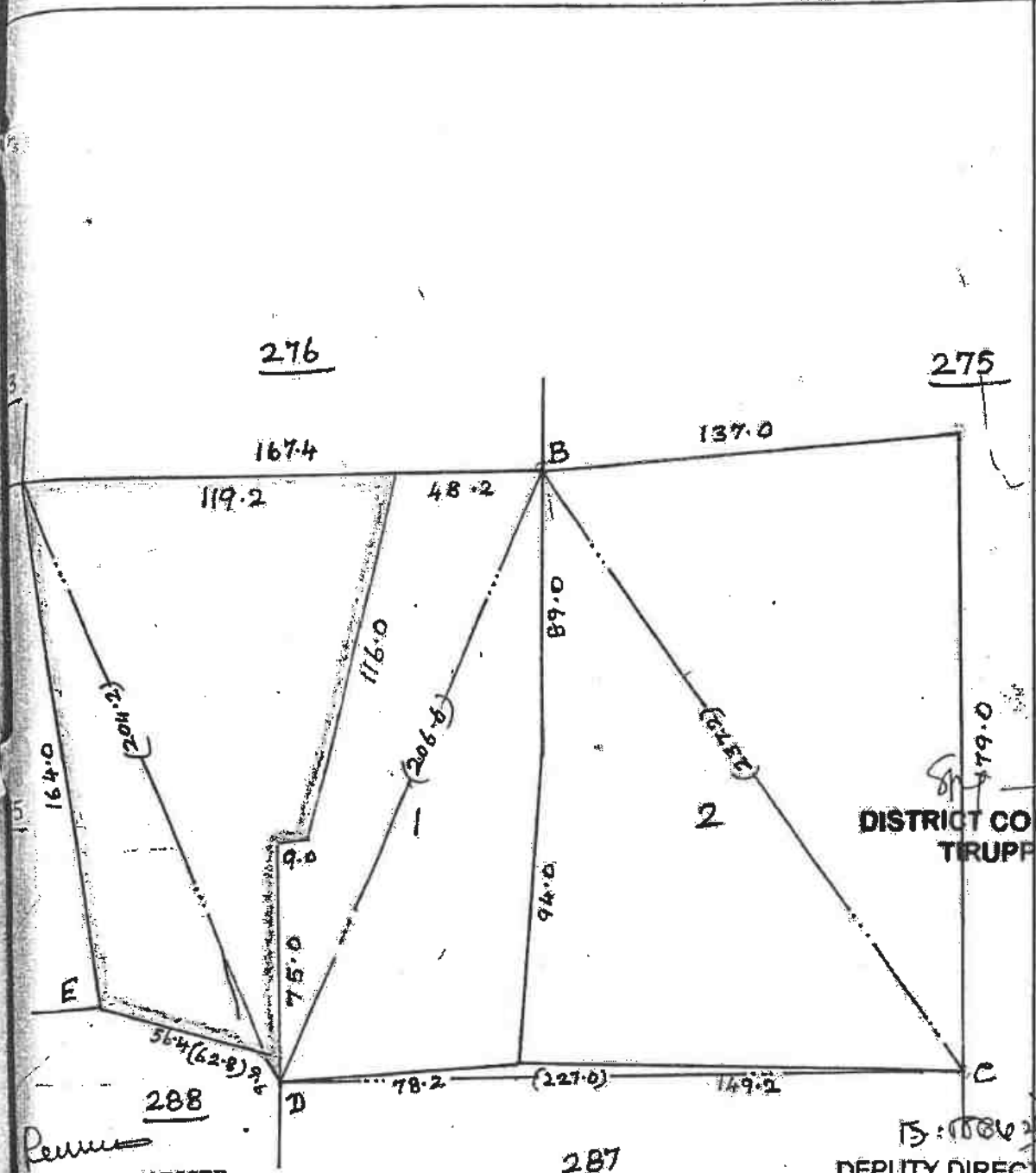


மாவட்டம்: திருப்பூர்
வட்டம்: திருப்பூர் தெற்கு

பிளாட்: எண்: 25
மையர்: திருவாய்

4வது: 286

சுதந்திரம் 5 ஏர் 27



DISTRICT COLLECTOR
TIRUPPUR

DEPUTY DIRECTOR
Geology and Mining
Tiruppur

RENTAL HOLDER / LESSEE

286/1 part = 4. ஏ. 3.93 சென்ட்.

வட்டாட்சியர்
திருப்பூர் தெற்கு

வட்டார் ஆய்வாளர்
திருப்பூர் தெற்கு வட்டம்

அமவு: 18.6.2000 கி.பி.





In the Office of TEMPORARY JOINT SUB REGISTRAR of Tiruppur Joint I and fee of Rs. 19650
on hours of 5 PM and 7 PM on 29/06/2016 by

Thumb



P. Renu

Additions As per the recitals of the document

Admitted by

I am satisfied my self as to the execution of the Instrument by Thiru S.Jeyandhi IAS (District
Tirupur) who is exempted from Personal Appearance under Section 88(1) of the Registration

தற்காலிக தலைவர் பதிலாளர்
திருப்பூர்

Admitted by

Left Thumb



P. Renu

Additions As per the recitals of the document



Sheet no. 1 of 2



by *[Signature]*

Name : *K. S. Ramesh Kumar S/o K. Subramaniam, 9/1162, P.N. Road, Thiruppur-64/602*

57

Name : *K. S. Vasanth Kumar S/o K. Subramaniam, 9/1162, P.N. Road, Thiruppur-64/602*

29th day of June 2016

[Signature]
TEMPORARY JOINT SUB REGISTRAR

Thiruppur Joint I

Registered as No 8153 of 2016 of Book I

Date : 29/06/2016 *[Signature]* TEMPORARY JOINT SUB REGISTRAR Thiruppur Joint I





தமிழ்நாடு TAMIL NADU

95AB 473784

3 FEB 2022

அ. ரமேஷ்

முத்தூர் துணை கிராமமன்றம்
No.2 நெல் திட்டம் காலவரை

சம்மதக் கடிதம், 625 003
பரிசு எண் 5402006 625 2022



திருப்பூர் மாவட்டம், பட்டம் வட்டம், 63, வேலம்பாளையம் கிராமம், குட்டைத் தோட்டம், எண். 3/563-ஏல் வசிக்கும் கிருஷ்ணசாமி மகன் கே. பாலசுப்பிரமணியம் ஆகிய நான் (1) திருப்பூர் மாவட்டம், பட்டம் வட்டம், 63, வேலம்பாளையம் கிராமம், குட்டைத் தோட்டம், கதவு எண். 3/563-ஏல் வசிக்கும் கே. பாலசுப்பிரமணியம் மகன் கார்த்திக் (2) ஆகிய உங்களுக்கு எழுதிக் கொடுக்கும் சம்மதக் கடிதம் என்னவென்றால்.

திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இலையம் கிராமம், புல எண். 277-ல் 2050 ஹெக்டர் பூமி பட்டா எண். 3430-என்பது நம்மிட (1) இலக்கமிட்டவர் பெயரில் தனிப்பட்டவராக தாக்கவாகியுள்ளது.

மேற்படி பூமியை நம்மிட (2) இலக்கமிட்ட கார்த்திக் என்பவர் சாதாரண சற்கன் / கிராமம் மண் வெட்டிபெடுக்க விண்ணப்பம் செய்துள்ளார். மேற்படி புலத்தில் துணை இலக்குநர் (கனிமம்) அவர்களால் அனுமதி வழங்கும் நாளிலிருந்து ஐந்து வருட காலத்திற்கு குவாரிக் குத்தகை உரிமம் வழங்கப்படும் இலக்கமிட்ட எனக்கு எவ்விதமான ஆட்சேபமையும் இல்லை. பின்னிட்டு எவ்வித தாக்கவாகியும் இல்லை. முழுமனதுடன் சம்மதம் அளிக்கிறேன் என உறுதி கூறுகிறேன்.



R. Suguna Devi M.A.B.L.

Advocate

Commissioner

No. 5, 333

K. Ramesh
B. Ramesh



தமிழ்நாடு தமிழ்நாடு TAMILNADU

- 5 AUG 2024

V P. Ramasamy

S. ரகுநாதன் ஸ்டாம்புவென்பர்

ஆட்சேபணையின்மை அபிவிருத்தி: 6/TRP/2003

தொட்டிபாளையம், திருப்பூர்

தமிழ்நாடு

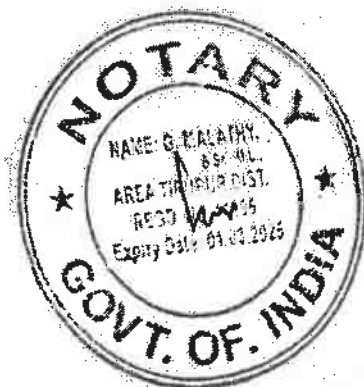
EL 098647

திருப்பூர் மாவட்டம், திருப்பூர், மங்கலம் ரோடு, எஸ்.ஆர்.நகர் தெற்கு, விவேகானந்தா நகர்
மேயின் வீதி, கதவு எண்:2/697-ஏ என்ற முகவரியில் வசிக்கும் திரு.வி.பிராமசாமி அவர்கள்
மனைவி திருமதி.ஆர்.தனலட்சுமி ஆகிய நான் பிரமாணத்தின் பேரில் கொடுக்கும்
ஆட்சேபணையின்மை அபிவிருத்தி என்வென்றால்,

நான் மேற்கண்ட முகவரியில் வசித்து வருகிறேன்.

திருப்பூர் மாவட்டம், திருப்பூர் நெ.1 இணைசார்பதிவு அலுவலகம், திருப்பூர் வட்டம், இடுவாய்
கிராமம், க.ச.286/2 காலையில் உள்ள புஞ்சை ஏக்கர் 6.32 பூமியானது 27.08.2003-ம்
தேதிய, திருப்பூர் நெ.1 இணைசார்பதிவு அலுவலக கிரய பத்திர எண்:4941/2003 -ன் படி
எனக்கு தனிப்பட்ட வகையில் பாத்தியப்பட்டு எனது தனித்த அனுபவத்தில் இருந்து
வருகிறது.

திருப்பூர் மாவட்டம், திருப்பூர் நெ.1 இணைசார்பதிவு அலுவலகம், திருப்பூர் வட்டம், இடுவாய்
கிராமம், க.ச.286/1 காலையில் உள்ள புஞ்சை ஏக்கர் 6.72 பூமியானது 27.08.2003-ம்
தேதிய, திருப்பூர் நெ.1 இணைசார்பதிவு அலுவலக கிரய பத்திர எண்:4942/2003 -ன் படி
திரு.பழனிசாமி மகன் திரு. வி.பிராமசாமி அவர்களுக்கு பாத்தியப்பட்டு அவருடைய தனித்த
அனுபவத்தில் இருந்து வருகிறது.



R. Dharmalingam



தமிழ்நாடு தமிழ்நாடு TAMILNADU

EL 098648

- 5 AUG 2024

ச. சத்தநாதன் ஸ்டாம்புவென்பர்
உ.எண்: 6/TRP/2008

ஆனால், மேற்படி இரண்டு சொத்துக்களுக்கும் தவறுதலாகப் புகளிடப்பட்டுள்ளது. மேற்படி எனது சொத்தில் திரு.பழனிசாமி மகன் திரு. வி.பி.ராமசாமி அவர்களுக்கு எவ்வித பாத்தியமும் இல்லை. அதேபோல் திரு.பழனிசாமி மகன் திரு. வி.பி.ராமசாமி அவர்களுக்கு பாத்தியப்பட்ட மேற்படி சொத்தில் எனக்கு எவ்வித பாத்தியமும் இல்லை.

மேற்படி திரு.பழனிசாமி மகன் திரு. வி.பி.ராமசாமி அவர்கள் தனக்கு பாத்தியப்பட்ட திருப்பூர் வட்டம், இடுவாய் கிராமம், க.ச.286/1 காலையில் உள்ள பஞ்சை ஏக்கர் 6.72 பூமியில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க குத்தகை உரிமம் கோரி திருப்பூர் மாவட்ட புவியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநரிடம் மனு செய்துள்ளார். அதன்படி அவருக்கு குத்தகை உரிமம் வழங்குவதில் எனக்கு எவ்வித ஆட்சேபமும் இல்லை என்பதை இதன் மூலம் தெரிவித்துக்கொள்கிறேன்.

மேற்கண்ட விவரங்கள் யாவும் உண்மையானவை மற்றும் சரியானவை என இதன் மூலம் உறுதியளிக்கிறேன். பின்னிட்டு ஏதேனும் விவரங்கள் தவறு எனத் தெரிய வந்தால் அதற்கு நானே முழுப் பொறுப்பாவேன்.

Solemnly affirmed and Signed
before me at Tiruppur on 9/8/24

Notary
Regn. No:11095

G. MALATHY, B.Sc., M.L.,
ADVOCATE & NOTARY
113, Best Complex,
Kumaran Road, TIRUPPUR - 641 601.
Cell: 94436 19961





4158

₹ 25000/-

02DD 799693

27-8-2003

P. Ramasami

T.M. செந்தில்நாதன்

ஸ்டாம்பு - சென்டர்

LIC No. 13/2000

திருப்பூர்-4, தமிழ்நாடு

(ATO, Tirupur)

63 வேலம்பாளையம்

கிரையம் ரூ. 2,70,000/-

2003 ம் வருடம் ஆகஸ்ட் மாதம் 27 ம் தேதி கோயம்புத்தூர் மாவட்டம், பல்லடம் வட்டம், 63, வேலம்பாளையம் கிராமத்தில் வசிக்கும் பழனிச்சாமி கவுண்டர் குமாரர் பி. ராமசாமி ஆகிய தங்களுக்கு,

கோயம்புத்தூர் மாவட்டம், அவினாசி வட்டம், அன்னூர் கிராமம், கல்பா அன்னூரில், கோயம்புத்தூர் ரோடு, கதவு எண். 149 லக்கமிட்ட வீட்டில் வசிக்கும் (லேட்) யு. காதர்பாட்சா குமாரர்கள் ஏ.கே. இக்பால் - 1, கே. முகம்மது ஆதில் - 2 ஆகிய நாங்கள் எழுதிக் கொடுத்த சுத்தக் கிரைய சாசனப் பத்திரம்.

விற்பவர்கள் :

வாங்குபவர் :

P. Ramasami

M. M. M. M.



5000RS.



4159

27-8-2003

P. रामசुब्ब
63, வேலம்பாளையம்

திரு. செந்தில்குமார்
T.M. செந்தில்குமார்

ஸ்டாப் - ரெண்டர்
LIC No. 13/2000
திருப்பூர்-4, தமிழ்நாடு

..2..

எங்களுக்கு 25.07.1996 ம் தேதியில் எழுதிக் கொடுக்கப்பட்டு, அது திருப்பூர் மாவட்டப் பதிவாளர் அலுவலகத்தில் 1.811.113.114.3104/1996 ம் என்னாகப் பதிவாகியுள்ள பத்திரப்படி பாத்தியப்பட்டு, அதுமுதல் நாங்கள் சர்வ கதந்திரமாக ஆண்டனுபவித்து வருகின்ற இதனடியிற்கண்ட சொத்தை நாளதுதேதியில் நாங்கள்

விற்பவர்கள் :

வாங்குபவர் :

P. Ramasubramanian

M. Ramasubramanian



1000Rs.



4160

22-2-2000

P. நாமசாமி
63 வேளம்பாளையம்

₹1000/-
T.M. செந்திநாதன்
ஸ்டாம்பு - சென்னை
LIC No. 12/2000
திருப்பூர்-4. தமிழ்நாடு



..3..

தங்களுக்கு ரூ. 2,70,000/- (ரூபாய் இரண்டு லட்சத்து எழுபதாயிரம்)க்கு சுத்தக் கிரையமும் கவாத்தினமும் செய்துகொடுப்பதாகப் பேசி ஒப்புக்கொண்டு, நாளது தேதியில் இதனடியிற்கண்ட சாட்சிகள் முன்னிலையில் கிரையத் தொகை ரூபாய் இரண்டு லட்சத்து எழுபதாயிரமும் ரொக்கமாகப் பெற்றுக்கொண்டு விட்டபடியால் நாளது தேதியே இதனடியிற்கண்ட சொத்தை தங்களுக்கு கிரையம் செய்துகொடுத்து தங்களது கவாத்தினத்தில் விட்டுவிட்டோம்.

விற்பவர்கள் :

வாங்குபவர் :

P. Ramesh

P. Ramesh





4161

24-8-2003

P. रामसुन्दर
63 வேளம்பாளையம்

10/0001

T.M. செந்திரநாதன்

ஸ்டாம்பு - வெண்டர்

LIC No. 13/0000

திருப்பூர்-4. தமிழ்நாடு



இனிமேல் இதனடியிற்கண்ட சொத்தை தாங்களே தங்கள் புத்திர பௌத்திர பாரம்பரியமாய் தானாதி கிரைய விக்சிரைய வினிமயங்களுக்கு யோக்கியமாய் ஆண்டனுபவித்துக் கொள்ளவேண்டியது.

இதனடியிற்கண்ட சொத்தை பொருத்து எங்களுக்காவது எங்களுடைய வாரிசுகளுக்காவது எந்தவிதமான பாத்திய சம்பந்தமும் பின் தொடர்ச்சியும் பாராட்டுதலும் இல்லை.

விற்பவர்கள் :

வாங்குபவர் :

10/

P. Ramasundar

P. Ramasundar



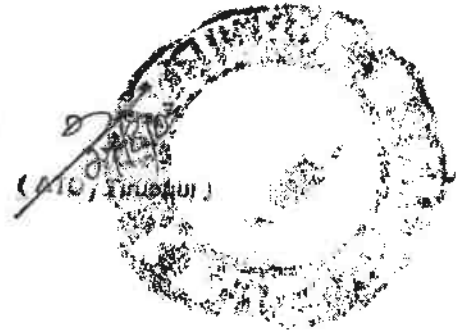


4162

27-8-2009

P. रामசுந்தர்
63 வேலம் பாளையம்

T.M. செந்தில்நாதன்
ஸ்டாம்ப் - வேண்டர்
LIC No. 13/2000
திருப்பூர்-4. தமிழ்நாடு



..5..

இதனடியிற்கண்ட சொத்தின் பேரில் வில்லங்க விவகாரம் ஒன்றும் இல்லை. ஒருக்கால் அப்படி ஏதேனும் வில்லங்க விவகாரம் இருக்கும்பட்சத்தில் அவற்றை நாங்களே முன்னின்று எங்கள் சொந்தப் பொறுப்பிலும், சொந்தச் செலவிலும் தீர்த்துக் கொடுக்க கடமைப்பட்டுள்ளோம்.

விற்பவர்கள் :

வாங்குபவர் :

P. Ramasundar





4163

27-8-2000

P. ராமசுந்தரி
63 உயர்மன்றம்

T.M. செந்தில்நாதன்

ஸ்டாம்பு - சென்னை
LIC No. 13/2000
திருப்பூர்-4, தமிழ்நாடு

..6..

இதனடியிற்கண்ட சொத்து தங்கள் பெயருக்கு மாறும்பொருட்டு அதற்கான
மாறுதல் மனுக்களிலும் கையெழுத்து செய்து இத்துடன் தாக்கல் செய்துள்ளோம்.

இதனடியிற்கண்ட சொத்து இடுவாய் ஊராட்சி மன்ற எல்லைக்கு உட்பட்டது.

விற்பவர்கள் :

Mamathir

வாங்குபவர் :

P. Ramasundari





4164

27-8-2009

P. ராமசுந்தர்

63 லேண்ட் பரணைம்

நாலை

T. M. செந்தில்நாதன்

சுட்டாம்ப-வேண்டர்

LIC No. 12/2000

திருப்பூர்-4 தமிழ்நாடு

..7..

சொத்து விபரம்

திருப்பூர் பதிவு மாவட்டம், திருப்பூர் 1 நெ. இணைசார் பதிவுகம், திருப்பூர் வட்டம், இடுவாய் கிராமம், க.ச. 286/1 நெ. பு. 6.72 க்கு தரம் ரூ. 3.81 உள்ள பூமி பூராவும் சகிதம்.

இதிலுள்ள போர்வெல்லும், மின் இணைப்பு ஆகிய இவைகள் பூராவும் சகிதம். மின் இணைப்பு எண். 301.

விற்பவர்கள் :

[Signature]

வாங்குபவர் :

[Signature]



100 Rs.



4165

27-8-2003

P. रामசுப்ப
63 வேலம்பாளையம்

10/05/03

T. வெங்கட்ரமணன்

T.M. செந்தில்நாதன்

ஸ்டாம்பு-வேண்டர்

LIC No-12/2000

திருப்பூர்-4 தமிழ்நாடு

..8..

மேற்படி பூமி மானாவாரி காட்டு பூமியாகும். மேற்படி பூமிக்கு 63, வேலம்பாளையம்
ஓ கரைப்புதூர் போகும் ஹைவேஸ் ரோட்டில் இருந்து கிழக்கே க.ச. 287/2 , 275/2 நெ.
காலை புறம்போக்கு ரோடுகளின் வழியாக உள்ள மாமூல் தடபாத்தியமும் சகிதம்.

பட்டா எண். 232. நில உரிமை பதிவேடு எண். 113390.

விற்பவர்கள் :

வாங்குபவர் :

P. Ramasubramanyam

P. Ramasubramanyam





4166
27-8-2000

P. रामसुखी
63 वनम्पनयम

T.M. செந்திலநாத்
ஸ்டாம்ப்-மெண்டர்
LIC No/12/2000
திருப்பூர்-4 தமிழ்நாடு

..9..

மேற்படி சொத்தின் மதிப்பு	ரூ. 2,70,000/-
போர்வெல் மதிப்பு	ரூ. 10,000/-
மின் இணைப்பு மதிப்பு	ரூ. 1000/-
ஆக மொத்த மதிப்பு	ரூ. 2,81,000/-

விற்பவர்கள் : *W*

வாங்குபவர் :

M. Ramesh

P. Ramesh

சாட்சிகள்:-

1. *A. Pichai Perumal*
26, 5th Bldg, 2nd fl
2. *M. Kader Balcha*
Contractor
Ramesh.

பத்திரம் தயாரித்தவர் :-

R. Gangaiah
ஆர். கங்காதேவி
உரிமம் எண். ஏ/1692/தி/99,
133, குமரன் ரோடு, திருப்பூர்.



திருச்சிதம்பலம் தொகுதி வட்டம்,

11. இலாப கிராமம், த.ச.எண் 277 - வி

21.05.00 வாங்கியிருக்கும் உள்நா

கூடியிருக்கும் கிராம அலுவலக எண்

8680 / 2012, 23.11.2012 - கையா கிராமம்

மகன் பாலகிருஷ்ணமணியும் சேலமங்கலம்

பாத்திரியும்கூடும் கிராமம் கையா

கூடியும் கிராமம் கையா கிராமம்

-கூடும் கிராமம் கையா கிராமம்

கிராமம் கையா கிராமம் கிராமம்

கிராமம் கையா கிராமம் கிராமம்

கிராமம் கையா கிராமம் கிராமம்

கிராமம் கையா கிராமம் கிராமம்

கிராமம் கையா கிராமம் கிராமம்

கிராமம் கையா கிராமம் கிராமம்

கிராமம் கையா கிராமம் கிராமம்

திருச்சிதம்பலம் தொகுதி வட்டம்

கிராம நிர்வாக அலுவலர் மருமகன்

பிறப்பு / இறப்பு பதிவாளர்

2, கிராமம் கிராமம்

கிராமம் கிராமம்

கிராம நிர்வாக அலுவலகம்

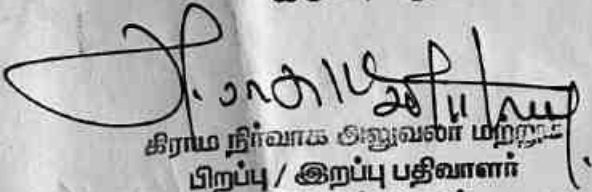
இடுவாய் கிராமம்

திருப்பூர் தெற்கு வட்டம்

ப/சு.

இடுவாய் கிராமம் க ச எண் 286/1 ல் பு ஏ 6.72 விஸ்தீரணம் உள்ள பூமியானாது கிரைய ஆவண எண் 4942/2003 27.08.2003 ன் படி பழனிசாமி மகன் ராமசாமி என்பவருக்கு பாத்தியப்பட்டது என்றும் மேற்படி பூமியில் 1.59 ஹெ அளவுக்கு கல்குவாரி உரிமம் புதுப்பிக்க உள்ளார் என்றும் மேற்படி பூமியில் கல்குவாரி அமைந்துள்ள இடத்தை சுற்றி சுமார் 300 மீட்டர் சுற்றளவில் கோவில்கள், மதூதிகள், குடியிருப்புகள், புராதான சின்னங்கள், தேசிய நெடுஞ்சாலைகள், மாநில நெடுஞ்சாலைகள், அரசு அங்கீகரிக்கப்பட்ட மனை இடங்கள், உயர் மின் அழுத்த கம்பிகள், ஏதும் இல்லை என்பதை தெரிவித்துக்கொள்கிறேன்.

இயக்கு


கிராம நிர்வாக அலுவலர் மற்றும்
பிறப்பு / இறப்பு பதிவாளர்
2, இடுவாய் கிராமம்,
திருப்பூர் தெற்கு

அ-1 விளம்பரம்

திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், திருப்பூர் தெற்கு உள்வட்டம், இடுவாய் கிராமம், பட்டா புல எண்.286/1 நெ.காலையில் பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள நிலத்தில் 1.59.0 பரப்பளவுள்ள நிலத்தில் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்கக்கோரி திருப்பூர் தெற்கு வட்டம், திருப்பூர், மங்கலம் சாலை, விவேகானந்தா நகர் மெயின் வீதி, கதவு எண்.2/697A என்ற முகவரியில் வசிக்கும் பழனிசாமி மகன் வி.பி.ராமசாமி என்பவர் மனுச்செய்துள்ளார். இதன்பேரில் யாருக்கேனும் ஏதாவது ஆட்சேபனை இருப்பின் அதற்கான ஆதாரங்களுடன் இவ்விளம்பரம் வெளியான 15 தினங்களுக்குள் திருப்பூர் தெற்கு வட்டாட்சியர் / திருப்பூர் தெற்கு உள்வட்ட நிலவருவாய் ஆய்வாளருக்கு எழுத்து மூலமாக தெரிவித்துக் கொள்ளவேண்டியது. குறிப்பிட்ட தேதிக்குப்பின் வரும் ஆட்சேபனைகள் ஏற்றுக் கொள்ளப்படமாட்டாது எனவும் தெரிவிக்கப்படுகிறது.

பெறுநர்
கிராம நிர்வாக அலுவலர்,
இடுவாய் கிராமம்.


02/07/2021
நிலவருவாய் ஆய்வாளர்
திருப்பூர் தெற்கு உள்வட்டம்
திருப்பூர் தெற்கு.

இடுவாய் மற்றும் அதன் சுற்றுவட்டார கிராமத்தில் தண்டோரா மூலம் பிரசித்தம் செய்து பொதுமக்கள் கையொப்பத்துடன் மீள சமர்ப்பிக்க வேண்டியது.

1] J. KAMESH KUMAR, S/o. K. JEGAN, ANNA MALAI GARDEN IDUVAI - TIRUPUR.	631048568475	
2] J. CHANDRA SEKAR, S/o. JAMBU LINNAM, CHINNA KALI PALAYAM, TIRUPUR.	392281665061	3 சந்திர சகர்
3] M. KANDHA KUMAR, S/o. MUTHU RAMA SAMY CHINNA KALI PALAYAM TIRUPUR.	802822594187	M. Kandi
4] R. SABAPATHI S/o. RAMASAMY GOUNDER CHINNA KALI PALAYAM TIRUPUR.	224510642320	R. S. S. Pathi

7 M. PERIRA SAMY
S/o, MARI MUTHU
CHINNA KALI PALAYAM.

807270491002

01/05/2010

8 S. JANAGARAJ
S/o, SHANMUGAM.
CHINNA KALI PALAYAM
TIRUPUR.

927847481215

S. Janagaj

9 P. APPU KUTTI
S/o, PALANI SAMY GOUNDER
CHINNA KALI PALAYAM
TIRUPUR.

98088278 0619

P. Appuk

10 K. SAKTHI GANESH
S/o, KONDASAMY
CHINNA KALI PALAYAM
TIRUPUR.

498239341164

K. Sakthi Ganesh

11 P. KANDHASAMY
S/o, PALANISAMY GOUNDER
CHINNA KALI PALAYAM
TIRUPUR.

573127418891

P. Kandhasamy

12 E. BENJAMIN FRANKLIN
S/o, INNAI
CHINNA KALI PALAYAM
TIRUPUR

487951872535

E. Benjamin Franklin

செய்து அளித்திருக்கிறேன். இதை கையேடு அடிப்படையில்
அளித்திருக்கிறேன் - சமீபத்தில் இதை அளித்திருக்கிறேன்
அதை அளித்திருக்கிறேன். இதை அளித்திருக்கிறேன்.

செய்து அளித்திருக்கிறேன்
அதை அளித்திருக்கிறேன்
அதை அளித்திருக்கிறேன்
அதை அளித்திருக்கிறேன்
அதை அளித்திருக்கிறேன்

அனுப்புநர்:

பெறுநர்:

திரு.கி.வேலுச்சாமி,
வட்டார வளர்ச்சி அலுவலர் (வ.ஊ.),
திருப்பூர் 641601.

உதவி இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருப்பூர்.

ந.க.எண்: 2486/ 2024/அ1 நாள்: 07.2024.

பொருள்: கனிமங்களும் - சுரங்கங்களும் -சிறு கனிமம் -சாதாரண கற்கள் -திருப்பூர் மாவட்டம் - திருப்பூர் தெற்கு வட்டம் - இடுவாய் கிராமம் - புல எண்.277ல் 2.05.0 ஹெக்டர் பட்டா நிலப்பரப்பில் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 10 வருடங்களுக்கு குவாரி குத்தகை உரிமம் கோரி (திரு.பி.கார்த்திக்,த/பெ கே.பாலசுப்பிரமணியம், 3/563, குட்டை தோட்டம், 63, வேலம்பாளையம், பல்லடம் என்பவர் மனு செய்துள்ளது - விசாரணை அறிக்கை கேட்டல் அறிக்கை - அனுப்புதல் - தொடர்பாக.

பார்வை: 1. திருப்பூர் உதவி இயக்குநர் புவியியல் மற்றும் சுரங்கத்துறை அவர்களின் ந.க.எண் : 58/2023/கனிமம்/நாள் : 24.02.2023.

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பார்வை காணும் கடிதத்தில், திருப்பூர் தெற்கு வட்டம் ,இடுவாய் கிராமம், புல எண்.277 ல் 2.05.0 ஹெக்டர் பரப்புள்ள பட்டா பூமியிலிருந்து 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திரு.பி.கார்த்திக்,த/பெ கே.பாலசுப்பிரமணியம், 3/563 , குட்டைத்தோட்டம், 63 வேலம்பாளையம், பல்லடம் என்பவர் விண்ணப்பித்துள்ளதாகவும், மனு தொடர்பாக, பிரஸ்தாப புலங்களிலிருந்து 300 மீட்டர் சுற்றளவிற்குள் அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் (Lay out) மற்றும் அங்கீகரிக்கப்பட்ட கட்டுமானங்கள் ஏதும் உள்ளதா என கேட்டுக்கொள்ளப்பட்டுள்ளது.

மேற்படி மனு தொடர்பாக, 03.07.2024 அன்று நேரில் புல தணிக்கை மேற்கொள்ளப்பட்டது.திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல எண். 277ல் 2.05.0 ஹெக்டர் பரப்புள்ள, திரு.பி.கார்த்திக் த/ பெ .கே.பாலசுப்பிரமணியம் என்பவருக்கு சொந்தமான பட்டா பூமியைச்சுற்றிலும் 300 மீட்டர் சுற்றளவுக்குள் அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் (Lay out) மற்றும் அங்கீகரிக்கப்பட்ட கட்டுமானங்கள் ஏதும் இல்லை என்பதை தெரிவித்துக்கொள்கிறேன்.

ச.வெங்கடாசு
4/7/24
வட்டார வளர்ச்சி அலுவலர் (வ.ஊ.),
திருப்பூர்.

நகல் :

திரு.பி.கார்த்திக்,
த/ பெ கே.பாலசுப்பிரமணியம்,
3/563, குட்டை தோட்டம்,
63, வேலம்பாளையம்,
பல்லடம்.

2024/07/24

திரு.க.விஜயகுமார்,

வட்டார வளர்ச்சி அலுவலர் (வ.ஊ.)
திருப்பூர்.

பெறுநர்

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருப்பூர்.

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712/2021



ந.க.எண்.2003/2021/அ2, நாள்:06.08.2021.

ஐயா,

பொருள்:

கனிமம் மற்றும் சுரங்கம் - சாதாரண கற்கள் -
திருப்பூர் வட்டாரம் - இடுவாய் கிராமம் - பட்டா
புல எண்.286/1 (பகுதி)-ல் 1.59.0 ஹெக்டெர்
பட்டா நிலப்பரப்பு - சாதாரண கற்கள் மற்றும்
கிராவல் மண் வெட்டி எடுத்தல் - 5 வருட குவாரி
குத்தகை உரிமம் கோரி மனு பெறப்பட்டது -
விசாரணை அறிக்கை அனுப்புதல் - தொடர்பாக.

பார்வை:

திருப்பூர், புவியியல் மற்றும் சுரங்கத்துறை,
துணை இயக்குநர் அவர்களின் கடித நக.எண்.
712/2021/கனிமம் நாள்: 29.06.2021.

திருப்பூர் மாவட்டம், திருப்பூர் வட்டாரம், இடுவாய் கிராமத்தில் பட்டா புல எண்.286/1 (பகுதி)-ல் 1.59.0 ஹெக்டெர் பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க 5 வருட குவாரி குத்தகை உரிமம் கோரி திரு.வி.பி.ராமசாமி, த/பெ.பழனிசாமி என்பவர் விண்ணப்பித்ததைத் தொடர்ந்து பார்வையில் கண்டுள்ள கடிதத்தில் மேற்படி பிரஸ்தாப புலங்களிலிருந்து 300 மீட்டர் சுற்றுக்குள் அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் (Layout) மற்றும் அங்கீகரிக்கப்பட்ட கட்டுமானங்கள் ஏதும் உள்ளதா என அறிக்கை கோரப்பட்டுள்ளது.

மேற்படி பிரஸ்தாப புலங்களிலிருந்து 300 மீட்டர் சுற்றுக்குள் அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் (Layout) மற்றும் அங்கீகரிக்கப்பட்ட கட்டுமானங்கள் ஏதும் இல்லை என்ற விவரமும் புலத் தணிக்கை மற்றும் விசாரணையின் மூலமாக தெரியவருகிறது என்பதைப் பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

வட்டார வளர்ச்சி அலுவலர் (வ.ஊ.)
திருப்பூர் வட்டாரம்.

6/8/21

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நில வருவாய் ஆய்வாளர் அலுவலகம்,
திருப்பூர் தெற்கு உள்வட்டம்.
நாள்:11.11.2023.

பணிநிதனுப்பப்படுகிறது :-

பார்வை :- இடுவாய் கிராம நிர்வாக அலுவலரின் அறிக்கை
நாள்:30.10.2023.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63 வேலம்பாளையம், குட்டை தோட்டம் க.எண்.3/563ஏ என்ற முகவரியில் வசிக்கும் பாலசுப்பிரமணியம் த/பெ.கிருஷ்ணசாமி என்பவருக்கு இடுவாய் கிராமம் க.ச.எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்புள்ள பூமி பாத்தியப்பட்டதாகவும், மேற்படி பூமியில் குவாரி அமைக்க உரிமம் கோரியதன் பேரில் எனதறிக்கையினை கீழ்க்காணுமாறு சமர்ப்பித்துக்கொள்கிறேன்.

இடுவாய் கிராமம் க.ச.எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்புள்ள பூமியில் மனுதாரர் கல்குவாரி அமைக்க உரிமம் கோரியுள்ள புலத்தை சுற்றி 300 மீட்டர் தொலைவில் உயர்மின் அழுத்த கம்பிகள், கோவில்கள், புராதனச்சின்னங்கள் வழிபாட்டுத்தலங்கள், வனத்துறையினரால் பாதுகாக்கப்பட்ட பகுதிகள், குடியிருப்புகள், ஏரிகள், குளங்கள் போன்ற நீர்நிலைப்பகுதிகள் ஏதும் இல்லை என்பதை பணிபுடன் தெரிவித்துக்கொள்கிறேன்.

இணைப்பு : ஆவணங்கள்.

பெறுநர் :- வட்டாட்சியர், திருப்பூர் தெற்கு.

நில வருவாய் ஆய்வாளர்
திருப்பூர் தெற்கு
திருப்பூர்.

உ.மு.எண்.113/2021

நில வருவாய் ஆய்வாளர் அலுவலகம்,

திருப்பூர் தெற்கு உள்வட்டம்.

நாள் 26.07.2021

பணிநிகழ்த்தப்படுகிறது.

கனிமங்களும் சுரங்கங்களும் - திருப்பூர் தெற்கு வட்டம், ஆண்டிபாளையம் கிராமம், மங்கலம் ரோடு, எஸ்.ஆர்.நகர் தெற்கு, விவேகானந்தர் நகர் மெயின் வீதி, கதவு எண்.2/697ஏ என்ற முகவரியில் வசித்துவரும் பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர் இடுவாய் கிராமம், பட்டா க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக் 2.71.5 விஸ்தீரணமுள்ள பட்டா நிலப்பரப்பில் பு.ஹெக். 1.59.0 விஸ்தீரணமுள்ள நிலப்பரப்பில் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்கக்கோரியது - அறிக்கை சமர்ப்பித்தல் தொடர்பாக.

பார்வை :- 1.திருப்பூர் தெற்கு வட்டாட்சியர் அலுவலக குறிப்பாணை ந.க. /2021/அ1 நாள்

2.இடுவாய் கிராம நிர்வாக அலுவலர் அறிக்கை நாள் 26.07.2021

திருப்பூர் தெற்கு வட்டம், ஆண்டிபாளையம் கிராமம், மங்கலம் ரோடு, எஸ்.ஆர்.நகர் தெற்கு, விவேகானந்தர் நகர் மெயின் வீதி, கதவு எண்.2/697ஏ என்ற முகவரியில் வசித்துவரும் பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர் இடுவாய் கிராமம், பட்டா க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக் 2.71.5 விஸ்தீரணமுள்ள பட்டா நிலப்பரப்பில் பு.ஹெக். 1.59.0 விஸ்தீரணமுள்ள நிலப்பரப்பில் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்கக்கோரிய மனுமீது இடுவாய் கிராம நிர்வாக அலுவலருடன் புலத்தணிக்கை மற்றும் விசாரணை செய்தும் ஆவணங்களை பரிசீலனை செய்தும் எனதறிக்கையினை கீழ்க்கண்டபடி பணிந்து சமர்ப்பிக்கிறேன்.

மனுதாரர் மேற்கண்ட முகவரியில் வசித்துவருகிறார் என்பது ஆவணங்கள் மற்றும் விசாரணையில் தெரியவருகிறது. மனுதாரர் இடுவாய் கிராமம் க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலத்தை திருப்பூர் மாவட்ட பதிவாளர் அலுவலக கிரைய ஆவண எண்.4942/2003 நாள் 27.08.2003 அன்று கிரையம் பெற்றுள்ளார் என்பது ஆவணங்களின் வாயிலாக தெரியவருகிறது. மேற்படி நிலத்திற்கு இடுவாய் கிராமம் பட்டா எண்.232-ல் மனுதாரர் மற்றும் மனுதாரர் மனைவி தனலட்சுமி பெயருக்கு கூட்டாக பட்டா தாக்கலாகியுள்ளது.

புலத்தணிக்கையில் மனுதாரர் குத்தகை உரிமம் வழங்க கேட்கும் க.ச.எண்.286/1 நெ.காலையை சுற்றி புலத்தின் எல்லைக்கற்கள் வரையறுக்கப்பட்டுள்ள விபரம் தல விசாரணையில் தெரியவருகிறது. மனுதாரர் குத்தகை உரிமம் கேட்கும் இடுவாய் கிராமத்தில் கடந்த 02.07.2021-ம் தேதியன்று அ-1 விளம்பரம் தண்டோர செய்யப்பட்டு பொதுமக்களிடம் அத்தாட்சி கையொப்பம் பெறப்பட்டது. ஆனால் நாளது தேதி வரை பொதுமக்களிடமிருந்து யாதொரு ஆட்சேபனையும் வரப்பெறவில்லை. மேலும் பொதுமக்களிடம் ஆட்சேபனை ஏதுமில்லை என்பதற்கு தனியாக வாக்குமூலம் பெறப்பட்டு இத்துடன் சமர்ப்பிக்கப்பட்டுள்ளது.

மனுதாரர் குத்தகை உரிமம் கோரும் புலத்திலிருந்து சுமார் 300 மீ சுற்றளவிற்கு கிராம நத்தம் அங்கீகரிக்கப்பட்ட மனைகள் மற்றும் கட்டுமானங்கள் எதுவுமில்லை. மேலும் மனுதாரர் குத்தகை உரிமம் க.ச.எண்.286/1 நிலத்தின்மீதான உரிமை (Surface Act) மனுதாரருக்கு உள்ளது.

மேலும் விசாரணையில் மனுதாரர் மேற்கண்ட க.ச.எண்.286/1 நெ.காலையில் 5 வருடங்களுக்கு நிபந்தனைகளுடன் கல் மற்றும் குவாரி செய்துகொள்ள திருப்பூர் மாவட்ட ஆட்சியர் அவர்களால் செயல்முறைகள் ஆணை ந.க.658/கனிமம்/2015 நாள் 14.06.2016 அன்று உத்திரவிடப்பட்டுள்ளது. எனவே மனுதாரருக்கு குவாரி தொழிலில் போதிய முன் அனுபவம் உள்ளவர் என்பது தெரியவருகிறது.

எனவே மனுதாரருக்கு இடுவாய் கிராமம் க.ச.எண்.286/1
நெ.காலையில் பு.ஹெக் 2.71.5 விஸ்தீரணமுள்ள பட்டா நிலப்பரப்பில் பு.ஹெக்.
1.59.0 விஸ்தீரணமுள்ள பரப்பளவில் சாதாரண கற்கள் மற்றும் கிராவல் மண்
வெட்டியெடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்கலாம் என்பதை
பணிவுடன் தெரிவித்துக்கொள்கிறேன்.

பெறுநர்

வட்டாட்சியர்,

திருப்பூர் தெற்கு.


26/7/2021
நிலைகுவாய் ஆய்வாளர்
திருப்பூர் தெற்கு உள்வட்டம்
திருப்பூர் தெற்கு.

அனுப்புநர்

பெறுநர்

திரு.எஸ்.கௌரி சங்கர், எம்.எஸ்.சி.,எம்.பில்.,
வட்டாட்சியர்,
திருப்பூர் தெற்கு.

சார் ஆட்சியர்,
திருப்பூர்.

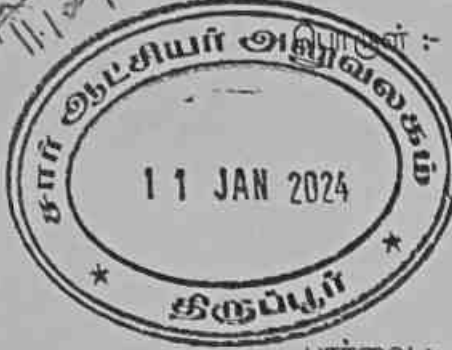
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ந.க.எண்.4502/2023/அ1

நாள்: .01.2024.

அம்மையர்,

84/11/24



பொருள் :-

கனிமங்கள் மற்றும் குவாரிகள் - திருப்பூர் மாவட்டம் - பல்லடம் வட்டம் - 63 வேலம்பாளையம் - குட்டை தோட்டம் - க.எண்.3/563ஏ - திரு.பாலசுப்பிரமணியம் மகன் கார்த்திக் - இடுவாய் கிராமம் புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமி - சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டிய எடுக்க அனுமதி கோரியது - தொடர்பாக.

பார்வை :-

திருப்பூர் தெற்கு உள்வட்ட நில வருவாய் ஆய்வாளரின் அறிக்கை நாள்:11.11.2023.

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திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63 வேலம்பாளையம், குட்டை தோட்டம் க.எண்.3/563ஏ என்ற முகவரியில் வசித்து வரும் பாலசுப்பிரமணியம் மகன் கார்த்திக் என்பவர் இடுவாய் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமியானது தனது தந்தை பாலசுப்பிரமணியம் என்பவருக்கு பாத்தியப்பட்டதாகவும், தான் மேற்படி இடத்தினை தன் தந்தையிடமிருந்து குத்தகை முறையில் பெற்றுள்ளதாகவும், மேற்படி புலத்தில் மனுதாரர் பாலசுப்பிரமணியம் மகன் கார்த்திக் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க அனுமதி கோரியுள்ளதன் பேரில் புலத்தணிக்கை மற்றும் விசாரணை மேற்கொண்டு எனத்தறிக்கையினை கீழ்க்காணுமாறு சமர்ப்பித்துக்கொள்கிறேன்.

இது தொடர்பாக ஆவணங்கள் பரிசீலனை செய்யப்பட்டதில் கிருஷ்ணசாமி மகன் பாலசுப்பிரமணியம் என்பவருக்கு இடுவாய் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமியானது திருப்பூர் மாவட்ட பதிவாளர் அலுவலக ஆவண எண்.8680/2012 நாள்:23.11.2012ன் படியும், இடுவாய் கிராமம் பட்டா எண்.3430ன் படியும் பாத்தியப்பட்டுள்ளதும், கடந்த 03.02.2022 நாளன்று மேற்படி இடத்தின் உரிமைதாரர் பாலசுப்பிரமணியம் அவரது மகன் கார்த்திக் என்பவருக்கு மேற்படி இடத்தினை குவாரி உரிமம் வழங்க அனுமதி அளிக்கும் நாளிலிருந்து 5 வருட காலத்திற்கு குத்தகை வழங்க நோட்டரி வழக்கறிஞர் முன்னிலையில் சம்மதம் தெரிவித்துள்ளார்.

இந்நிலையில் குத்தகை உரிமம் பெற்ற பாலசுப்பிரமணியம் மகன் கார்த்திக் என்பவர் 1) தான் வருமான வரியினங்களை நிலுவையின்றி செலுத்தி வருவதாகவும், 2) மேற்படி குவாரி உரிமம் தவிர உடன் நிகழ்வாக கனிம குவாரி குத்தகை உரிமம் கேட்டு

தமிழ்நாட்டில் வேறு எந்த மாவட்டத்திலும் விண்ணப்பம் ஏதும் அளிக்கவில்லை எனவும், 3) தமிழ்நாட்டில் வேறு எந்த மாவட்டத்திலும் மேற்கண்ட குத்தகை உரிம விண்ணப்பம் தவிர வேறு எந்த குத்தகை உரிமமும் நடைமுறையில் இல்லை எனவும், கனிம வரி நிலுவையினங்கள் ஏதும் நாளது வரையில் இல்லை எனவும், நோட்டரி வழக்கறிஞர் முன்னிலையில் உறுதிமொழி அளித்துள்ளார்.

மேலும், புலத்தணிக்கையில் இடுவாய் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமியில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க பாலசுப்பிரமணியம் மகன் கார்த்திக் என்பவர் அனுமதி கோரியுள்ள இடத்தினை சுற்றி 300 மீட்டர் தொலையில் உயர் மின் அழுத்த கம்பிகள், கோவில்கள், புராதனச்சின்னங்கள், வழிபாட்டுத்தளங்கள், வனத்துறையினரால் பாதுகாக்கப்படும் காடுகள், குடியிருப்புகள், ஏரிகள் மற்றும் குளங்கள் போன்ற நீர்நிலைகள் ஏதும் இல்லை என்பதும் தெரியவருகிறது.

இந்நேர்வில், புலத்தணிக்கை, விசாரணை, ஆவணங்கள், கிராம நிர்வாக அலுவலர் அறிக்கை மற்றும் நில வருவாய் ஆய்வாளர் அறிக்கையின் அடிப்படையில் திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63 வேலம்பாளையம், குட்டை தோட்டம் க.எண்.3/563ஏ என்ற முகவரியில் வசித்து வரும் பாலசுப்பிரமணியம் மகன் கார்த்திக் என்பவருக்கு இடுவாய் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமியில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க அனுமதி வழங்கலாம் என்பதை பணிவுடன் தெரிவித்துக்கொள்கிறேன்.

இணைப்பு : ஆவணங்கள்.

தங்கள் உண்மையுள்ள,

வட்டாட்சியர்,
திருப்பூர் தெற்கு.

அனுப்புநர்

திரு.இரா.இராஜகுமார்.,
வட்டாட்சியர்,
திருப்பூர் தெற்கு.

பெறுநர்

வருவாய் கோட்டாட்சியர்,
திருப்பூர்.

ந.க.1741/2021/அ1, நாள்: 28.07.2021

அய்யா,

பொருள்:

கனிமங்களும் சுரங்கங்களும் - திருப்பூர் மாவட்டம் - திருப்பூர் தெற்கு வட்டம் - ஆண்டிபாளையம் கிராமம் - மங்கலம் ரோடு - எஸ்.ஆர்.நகர் தெற்கு - விவேகானந்தர் நகர் மெயின் வீதி - கதவு எண்.2/697/ஏ - பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர் இடுவாய் கிராமம் - க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக்.2.71.5ல் பு.ஹெக்.1.59.0 பூமியில் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்க கோரியது - அறிக்கை அனுப்புதல் - தொடர்பாக.

பார்வை:

- 1 திருப்பூர் வருவாய் கோட்டாட்சியர் அவர்களின் குறிப்பாணை ந.க.எண்.1463/2021/அ5, நாள்:29.06.2021.
- 2 திருப்பூர் தெற்கு உள்வட்ட நில வருவாய் ஆய்வாளரின் அறிக்கை நாள்: 26.07.2021.

திருப்பூர் தெற்கு வட்டம், ஆண்டிபாளையம் கிராமம், மங்கலம் ரோடு, எஸ்.ஆர்.நகர் தெற்கு, விவேகானந்தர் நகர் மெயின் வீதி, கதவு எண்.2/697/ஏ என்ற முகவரியில் வசித்து வரும் பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர் தனக்கு சொந்தமான இடுவாய் கிராமம், க.ச.எண்.286/1, பு.ஹெக்.2.71.5-ல், பு.ஹெக்.1.59.0 பூமியில் மட்டும் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்க கோரி மனுச்செய்துள்ளதாக தெரிவித்து பார்வை 1-ல் காண் கடிதம் வரப்பெற்றதன் பேரில், 26.07.2021 அன்று விசாரணை மற்றும் புலத்தணிக்கை மேற்கொண்டு எனதறிக்கையை கீழ்க்கண்டவாறு சமர்ப்பித்துக் கொள்கிறேன்.

மனுதாரர் மனுவின் பேரில் விசாரணை மற்றும் புலத்தணிக்கை மேற்கொண்டு, இடுவாய் கிராமம், க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலத்தை திருப்பூர் மாவட்ட பதிவாளர் அலுவலக கிரையப்பத்திர ஆவண எண்.4942/2003, நாள்:27.08.2003-ன்படி கிரையம் பெற்றுள்ளார் எனவும், மேற்படி கிராமம் பட்டா எண்.232-ல் மனுதாரர் மனைவி திருமதி.தனலட்சுமி என்பவர் பெயர் கூட்டாக தாக்கலாகியுள்ளது எனவும், க.ச.எண்.286/1 நெ.காலையை சுற்றி புலத்தில் எல்லைக் கற்கள் வரையறுக்கப்பட்டுள்ள விபரம் தல விசாரணையில் தெரிய வருகிறது எனவும் தெரிவித்துள்ளார். மேலும் மனுதாரர் குத்தகை உரிமம் கோரும் மேற்காண் கிராமத்தில் கடந்த 02.07.2021-ம் தேதியன்று "அ1" விளம்பரம் செய்யப்பட்டு பொதுமக்களிடம் கையொப்பம் பெறப்பட்டுள்ளதில், நாளது தேதி வரை பொதுமக்களிடமிருந்து எவ்வித ஆட்சேபணையும் வரப்பெறவில்லை எனவும் தெரிவிக்கப்பட்டுள்ளது.

மேலும், மனுதாரர் குத்தகை உரிமம் கோரும் புலத்திலிருந்து சுமார் 300 மீட்டர் சுற்றளவில் கிராம நத்தம், அங்கீகரிக்கப்பட்ட மனைகள் மற்றும் கட்டுமானங்கள் ஏதுமில்லை எனவும், மனுதாரர் குத்தகை உரிமம் கோரும் க.ச.எண்.286/1 நிலத்தின் மீதான உரிமை (Surface Act) உள்ளது எனவும் தெரிவிக்கப்பட்டுள்ளது. மேலும், திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறைகள் ஆணை ந.க.658/கனிமம்/2015, நாள்:14.06.2016 உத்தரவின்படி மனுதாரருக்கு 22.06.2016 முதல் 21.06.2021 வரை 5 ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்கி உத்தரவிடப்பட்டுள்ளது. மேற்காண் கிராமம், க.ச.எண்.286/1, பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலப்பரப்பில் பு.ஹெக்.1.59.0 விஸ்தீரணமுள்ள பரப்பளவில் மட்டும் சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்க பரிந்துரை செய்து பார்வை 2-ல் காண் கடிதத்தின்படி அறிக்கை சமர்ப்பித்துள்ளார்.

இந்நேர்வில், மனுதாரருக்கு மேற்படி கிராமம், க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலத்தை திருப்பூர் மாவட்ட பதிவாளர் அலுவலக கிரையப்பத்திர ஆவண எண்.4942/2003, நாள்:27.08.2003-ன்படி கிரையம் பெற்றுள்ளார். மேலும் பட்டா எண்.232-ல் மனுதாரர் மனைவி திருமதி.தனலட்சுமி என்பவர் பெயர் கூட்டாக தாக்கலாகியுள்ளது எனவும், மனுதாரர் குத்தகை உரிமம் கோரும் க.ச.எண்.286/1 நிலத்தின் மீதான உரிமை (Surface Act) உள்ளது எனவும் புலத்தணிக்கை மற்றும் விசாரணையில் தெரிய வருகிறது. எனவே மேற்காண் கிராமம், க.ச.எண்.286/1, பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலப்பரப்பில் பு.ஹெக்.1.59.0 விஸ்தீரணமுள்ள பரப்பளவில் மட்டும் சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்க பரிந்துரை செய்கிறேன் என்பதைப் பணிவுடன் தெரிவித்துக்கொள்கிறேன்.

இணைப்பு:- மேற்சொன்னவாறு

தங்கள் உண்மையுள்ள,

வட்டாட்சியர்,
திருப்பூர் தெற்கு.

2
28/07/2021

புலத்தணிக்கை குறிப்பு

மாவட்டம்	: திருப்பூர்
வட்டம்	: திருப்பூர் தெற்கு
கிராமம்	: ஆண்டிபாளையம்
புல எண்	: க.ச.எண்.286/1
பரப்பு	: பு.ஹெக்.1.59.0
தணிக்கை நாள்	: 26.07.2021

திருப்பூர் தெற்கு வட்டம், ஆண்டிபாளையம் கிராமம், மங்கலம் ரோடு, எஸ்.ஆர்.நகர் தெற்கு, விவேகானந்தர் நகர் மெயின் வீதி, கதவு எண்.2/697/ஏ என்ற முகவரியில் வசித்து வரும் பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர் தனக்கு சொந்தமான இடுவாய் கிராமம், க.ச.எண்.286/1, பு.ஹெக்.2.71.5-ல், பு.ஹெக்.1.59.0 பூமியில் மட்டும் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்க கோரி மனுச்செய்துள்ளதாக தெரிவித்து பார்வை 1-ல் காண்கடிதம் வரப்பெற்றதன் பேரில், 26.07.2021 அன்று விசாரணை மற்றும் புலத்தணிக்கை மேற்கொள்ளப்பட்டது. புலத்தணிக்கையின் போது நில வருவாய் ஆய்வாளர், கிராம நிர்வாக அலுவலர் மற்றும் நில அளவர் ஆகியோர் உடனிருந்தனர்.

மனுதாரருக்கு இடுவாய் கிராமம், க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலத்தை திருப்பூர் மாவட்ட பதிவாளர் அலுவலக கிரையப்பத்திர ஆவண எண்.4942/2003, நாள்:27.08.2003-ன்படி கிரையம் பெற்றுள்ளார் எனவும், மேற்படி கிராமம் பட்டா எண்.232-ல் மனுதாரர் மனைவி திருமதி.தனலட்சுமி என்பவர் பெயர் கூட்டாக தாக்கலாகியுள்ளது எனவும், க.ச.எண்.286/1 நெ.காலையை சுற்றி புலத்தில் எல்லைக் கற்கள் வரையறுக்கப்பட்டுள்ள விபரம் தல விசாரணையில் தெரிய வருகிறது எனவும் தெரிய வருகிறது. மேலும் மனுதாரர் குத்தகை உரிமம் கோரும் மேற்காண் கிராமத்தில் கடந்த 02.07.2021-ம் தேதியன்று "அ1" விளம்பரம் செய்யப்பட்டு பொதுமக்களிடம் கையொப்பம் பெறப்பட்டுள்ளதில், நாளது தேதி வரை பொதுமக்களிடமிருந்து எவ்வித ஆட்சேபணையும் வரப்பெறவில்லை எனவும் தெரிய வருகிறது.

மேலும், மனுதாரர் குத்தகை உரிமம் கோரும் புலத்திலிருந்து சுமார் 300 மீட்டர் சுற்றளவில் கிராம நத்தம், அங்கீகரிக்கப்பட்ட மனைகள் மற்றும் கட்டுமானங்கள் ஏதுமில்லை எனவும், மனுதாரர் குத்தகை உரிமம் கோரும் க.ச.எண்.286/1 நிலத்தின் மீதான உரிமை (Surface Act) உள்ளது எனவும் தெரிவிக்கப்பட்டுள்ளது. மேலும், திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறைகள் ஆணை ந.க.658/கனிமம்/2015, நாள்:14.06.2016 உத்தரவின்படி மனுதாரருக்கு மேற்காண் கிராமம், க.ச.எண்.286/1, பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலப்பரப்பில் பு.ஹெக்.1.59.0 விஸ்தீரணமுள்ள பரப்பளவில் மட்டும் சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்க பரிந்துரை செய்து பார்வை 2-ல் காண்கடிதத்தின்படி அறிக்கை சமர்ப்பித்துள்ளார்.

மனுதாரருக்கு மேற்படி கிராமம், க.ச.எண்.286/1 நெ.காலையில் பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலத்தை திருப்பூர் மாவட்ட பதிவாளர் அலுவலக கிரையப்பத்திர ஆவண எண்.4942/2003, நாள்:27.08.2003-ன்படி கிரையம் பெற்றுள்ளார். பட்டா எண்.232-ல் மனுதாரர் மனைவி திருமதி.தனலட்சுமி என்பவர் பெயர் கூட்டாக தாக்கலாகியுள்ளது. மேலும் மனுதாரர் குத்தகை உரிமம் கோரும் க.ச.எண்.286/1 நிலத்தின் மீதான உரிமை (Surface Act) உள்ளது எனவும் புலத்தணிக்கை மற்றும் விசாரணையில் தெரிய வருகிறது. எனவே மேற்காண் கிராமம், க.ச.எண்.286/1, பு.ஹெக்.2.71.5 விஸ்தீரணமுள்ள பட்டா நிலப்பரப்பில் பு.ஹெக்.1.59.0 விஸ்தீரணமுள்ள பரப்பளவில் மட்டும் சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க 5 வருடங்களுக்கு குத்தகை உரிமம் வழங்க பரிந்துரை செய்து திருப்பூர் வருவாய் கோட்டாட்சியர் அவர்களுக்கு வரைவு தயார் செய்து வைக்கவும்.

வட்டாட்சியர்
திருப்பூர் (தெற்கு)

புலத்தணிக்கை குறிப்பு

கிராமம் : இடுவாய
 புல எண் : 277
 தணிக்கை நாள் : 03.05.2024
 நோக்கம் : குவாரி குத்தகை உரிமம் புதுப்பிக்க கோரியது.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63 வேலம்பாளையம், குட்டை தோட்டம் க.எண்.3/563ஏ என்ற முகவரியில் வசித்து வரும் பாலசுப்பிரமணியம் மகன் கார்த்திக் என்பவர் இடுவாய் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமியானது தனது தந்தை பாலசுப்பிரமணியம் என்பவருக்கு பாத்தியப்பட்டதாகவும், தான் மேற்படி இடத்தினை தனது தந்தையிடமிருந்து குத்தகை முறையில் பெற்றுள்ளதாகவும், மேற்படி புலத்தில் மனுதாரர் பாலசுப்பிரமணியம் மகன் கார்த்திக் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க அனுமதி கோரியுள்ளதன் பேரில் இன்று 03.05.2024 புலத்தணிக்கை செய்யப்பட்டது. புலத்தணிக்கையின் போது திருப்பூர் தெற்கு வட்டாட்சியர், திருப்பூர் தெற்கு நில வருவாய் ஆய்வாளர், உள்வட்ட அளவர் மற்றும் இடுவாய் கிராம நிர்வாக அலுவலர் ஆகியோர் உடனிருந்தனர்.

இது தொடர்பாக ஆவணங்கள் பரிசீலனை செய்யப்பட்டதில் கிருஷ்ணசாமி மகன் பாலசுப்பிரமணியம் என்பவருக்கு இடுவாய் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமியானது திருப்பூர் மாவட்ட பதிவாளர் அலுவலக ஆவண எண்.8680/2012 நாள்:23.11.2012ன் படியும், இடுவாய் கிராமம் பட்டா எண்.3430ன் படியும் பாத்தியப்பட்டுள்ளதும், கடந்த 03.02.2022 நாளன்று மேற்படி இடத்தின் உரிமைதாரர் பாலசுப்பிரமணியம் அவரது மகன் கார்த்திக் என்பவருக்கு மேற்படி இடத்தினை குவாரி உரிமம் வழங்க அனுமதி அளிக்கும் நாளிலிருந்து 5 வருட காலத்திற்கு குத்தகை வழங்க சம்மதம் தெரிவித்துள்ளார்.இந்நிலையில் குத்தகை உரிமம் பெற்ற பாலசுப்பிரமணியம் மகன் கார்த்திக் என்பவர்

"புலத்தணிக்கையில் இடுவாய் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 பரப்பு பூமியில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க பாலசுப்பிரமணியம் மகன் கார்த்திக் என்பவர் அனுமதி கோரியுள்ள இடத்தினை சுற்றி 300 மீட்டர் தொலையில் உயர் மின் அழுத்த கம்பிகள், கோவில்கள், புராதனச் சின்னங்கள், வழிபாட்டுத்தளங்கள், வனத்துறையினரால் பாதுகாக்கப்படும் காடுகள், குடியிருப்புகள், ஏரிகள் மற்றும் குளங்கள் போன்ற நீர்நிலைகள் ஏதும் இல்லை என்பதும் தெரிய வருகிறது."

எனவே, மனுதாரர் திரு. கார்த்திக், த/பெ.பாலசுப்பிரமணியம் என்பவருக்கு கோடங்கிபாளையம் கிராமம், புல எண்.277 நெ.காலையில் பு.ஹெ.02.05.00 விஸ்தீரணம் உள்ள பூமியில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க 5 ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்குவது தொடர்பாக திருப்பூர் மாவட்ட ஆட்சியர் அவர்களுக்கு கடித வரைவு தயார் செய்து வைக்கவும்.

சார் ஆட்சியர்(பொ),
திருப்பூர்.

அனுப்புநர்

திரு.எம்.ஜெகநாதன், M.Sc.,
வருவாய் கோட்டாட்சியர்,
திருப்பூர்.

பெறுநர்

மாவட்ட ஆட்சியர்
திருப்பூர்

ந.க.1463/2021/ஈ1 நாள்: 08.2021

அய்யா,

பொருள்:

கனிமங்களும் சுரங்கங்களும் - திருப்பூர் மாவட்டம் - திருப்பூர்
தெற்கு வட்டம் - இடுவாய் கிராமம் - புல எண்.286/1
நெ.காலையில் 2.71.5 ஹெக்டரில் பகுதி 1.59.0 ஹெக்டேர்
பூமியில் சாதாரண கற்கள்/கிராவல் மண் வெட்டியெடுக்க 5
வருடங்களுக்கு பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி
என்பவர் குவாரி குத்தகை உரிமம் கோரியது - அறிக்கை
அனுப்புதல் - தொடர்பாக.

பார்வை: 1. துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை திருப்பூர்
அவர்களின் கடித ந.க.712/2021/கனிமம், நாள்: 29.06.2021.

2. திருப்பூர் தெற்கு வட்டாட்சியர் அறிக்கை
ந.க.1741/2021/அ1, நாள்:28.07.2021.

திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், ஆண்டிபாளையம் கிராமம்,
மங்கலம் ரோடு, எஸ்.ஆர்.நகர் தெற்கு, விவேகானந்தர் நகர் மெயின் வீதி, கதவு
எண்.2/697/ஏ என்ற முகவரியில் வசிக்கும் பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர்
தனக்கு சொந்தமான திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல எண்.286/1
நெ.காலையில் 2.71.5 ஹெக்டரில் பகுதி 1.59.0 ஹெக்டர் பரப்பளவில் விஸ்தீரணமுள்ள
பூமியில் சாதாரணகற்கள்/கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு குவாரி குத்தகை
உரிமம் கோரி மனு அளித்தது தொடர்பாக, பார்வை - 2ல் காணும் கடிதத்தில் திருப்பூர் தெற்கு
வட்டாட்சியர் அறிக்கை சமர்ப்பித்துள்ளதை தொடர்ந்து, மேற்படி புலத்தினை 02.08.2021 அன்று
புலத்தணிக்கை மேற்கொண்டு எனதறிக்கையினை கீழ்க்கண்டவாறு சமர்ப்பித்துக்
கொள்கிறேன்.

மனுதாரர் திரு.வி.பி.ராமசாமி என்பவர் குவாரி குத்தகை உரிமம் வழங்கக்
கோரிய பிரஸ்தாப புலமான திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல எண்.286/1
நெ.காலையில் 2.71.5 ஹெக்டரில் பகுதி 1.59.0 ஹெக்டர் விஸ்தீரணமுள்ள பூமியானது
திருப்பூர் மாவட்ட சார்பதிவாளர் அலுவலக கிரையப் பத்திர எண்:4942/2003,
நாள்:27.08.2003 - ன் படியும், மேற்படி கிராம பட்டா எண்.232-ன் படியும் கூட்டாக
பாத்தியப்பட்டு அனுபவத்தில் உள்ளது.

மனுதாரர் குவாரி குத்தகை உரிமம் புதுப்பிக்கக் கோரியது தொடர்பாக
இடுவாய் கிராமத்தில் 02.07.2021 அன்று "அ1" விளம்பரம் செய்யப்பட்டதில் நாளது வரை
எவ்வித ஆட்சேபனையும் பொதுமக்களிடம் இருந்து வரப்பெறவில்லை. இந்நேரத்தில் மனுதாரர்

அரசுக்கு செலுத்த வேண்டிய கனிம வரி நிலுவை இல்லை எனவும், வருமான வரி நிலுவை இல்லை எனவும், அதற்கான உறுதிமொழி மற்றும் குத்தகை உரிமம் வழங்குவது தொடர்பாக மனுதாரர் பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர் உறுதிமொழி ஆவணங்கள் ஆகியவற்றை சமர்ப்பித்துள்ளார்.

மேலும் குவாரி குத்தகை உரிமம் கோரும் பூமி தொடர்பாக புலத்தணிக்கையின் போது பின்வரும் விபரங்கள் தெரியவருகிறது. குவாரி குத்தகை கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக்கற்கள் நடப்பட்டுள்ளன. குவாரி உரிமம் வழங்க கோரும் பூமியில் விலையுயர்ந்த மரங்கள் ஏதும் இல்லை. குத்தகை கோரும் புலங்களைச் சுற்றி 300மீ சுற்றளவில் ஊர் நத்தம், குடியிருப்பு பகுதிகள், தேசிய நெடுஞ்சாலைகள் மற்றும் வழிபாட்டு தலங்கள் ஏதுமில்லை. குவாரி குத்தகை கோரும் புலங்களைச் சுற்றி 300மீ சுற்றளவில் தொல்பொருள் துறையின் கட்டுப்பாட்டில் உள்ள புராதனச்சின்னங்கள் ஏதுமில்லை. குவாரி குத்தகை உரிமம் கோரும் புலத்தில் உயர் மின்னழுத்த கம்பிகள் ஏதும் செல்லவில்லை.

எனவே திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல எண்.286/1 நெ.காலையில் 2.71.5 ஹெக்டரில் பகுதி 1.59.0 ஹெக்டர் பரப்பு விஸ்தீரணமுள்ள பூமியிலிருந்து சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவருக்கு, 1959 - ஆம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகைவிதி - 19(1) மற்றும் 33 ன் படி குத்தகை குறித்த நிபந்தனைகளின் பேரில் குவாரி குத்தகை உரிமம் வழங்க பரிந்துரை செய்து, தொடர்புடைய திருப்பூர் தெற்கு வட்டாட்சியரின் அறிக்கை மற்றும் கிராம ஆவணங்கள் ஆகியவற்றினை இத்துடன் இணைத்துப்பியுள்ளேன் என்பதை பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

இணைப்பு : கிராம ஆவணங்கள்.

தங்கள் உண்மையுள்ள,

வருவாய் கோட்டாட்சியர்,
திருப்பூர்.

சென்
2/8/24

புலத்தணிக்கைகுறிப்பு

வட்டம்: திருப்பூர் தெற்கு
கிராமம்: இடுவாய்
புலஎண்: 286/1 நெ.காலையில் பகுதி 1.59.0 ஹெக்டேர்.
தணிக்கைநாள்: 02.08.2021.
நோக்கம் : குவாரி குத்தகை உரிமம் வழங்கக் கோரியது
தொடர்பாக.

திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், ஆண்டிபாளையம் கிராமம், மங்கலம் ரோடு, எஸ்.ஆர்.நகர் தெற்கு, விவேகானந்தர் நகர் மெயின் வீதி, கதவு எண்.2/697/ஏ என்ற முகவரியில் வசிக்கும் பழனிச்சாமி மகன் திரு.வி.பி.ராமசாமி என்பவர் தனக்கு சொந்தமான திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல எண்.286/1 நெ.காலையில் 2.71.5 ஹெக்டரில் பகுதி 1.59.0 ஹெக்டர் விஸ்தீரணமுள்ள பூமியில் சாதாரணகற்கள்/கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் கோரி மனு அளித்தது தொடர்பாக, மேற்படி புலமானது 02.08.2021 அன்று தணிக்கை செய்யப்பட்டது.

மனுதாரர் திரு.வி.பி.ராமசாமி என்பவர் குவாரி குத்தகை உரிமம் வழங்கக் கோரிய பிரஸ்தாப புலமான திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல எண்.286/1 நெ.காலையில் 2.71.5 ஹெக்டரில் பகுதி 1.59.0 ஹெக்டர் விஸ்தீரணமுள்ள பூமியானது திருப்பூர் மாவட்ட சார்பதிவாளர் அலுவலக கிரையப் பத்திர எண்:4942/2003, நாள்:27.08.2003 - ன் படியும், மேற்படி கிராம பட்டா எண்.232-ன் படியும் கூட்டாக பாத்தியப்பட்டு அனுபவத்தில் உள்ளது.

மேலும் குவாரி குத்தகை உரிமம் கோரும் பூமி தொடர்பாக புலத்தணிக்கையின் போது பின்வரும் விபரங்கள் தெரியவருகிறது. குவாரி குத்தகை கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக்கற்கள் நடப்பட்டுள்ளன. குவாரி உரிமம் வழங்க கோரும் பூமியில் விலையுயர்ந்த மரங்கள் ஏதும் இல்லை. குத்தகை கோரும் புலங்களைச் சுற்றி 300மீ சுற்றளவில் ஊர் நத்தம், குடியிருப்பு பகுதிகள், தேசிய நெடுஞ்சாலைகள் மற்றும் வழிபாட்டு தலங்கள் ஏதுமில்லை. குவாரி குத்தகை கோரும் புலங்களைச் சுற்றி 300மீ

சுற்றளவில் தொல்பொருள் துறையின் கட்டுப்பாட்டில் உள்ள புராதனச்சின்னங்கள் ஏதுமில்லை.

குவாரி குத்தகை உரிமம் கோரும் புலத்தில் உயர் மின்னழுத்த கம்பிகள் ஏதும் செல்லவில்லை.

எனவே திருப்பூர் மாவட்டம், திருப்பூர் தெற்கு வட்டம், இடுவாய் கிராமம், புல
எண்.286/1 நெ.காலையில் 2.71.5 ஹெக்டரில் பகுதி 1.59.0 ஹெக்டர் பரப்பு விஸ்தீரணமுள்ள
பூமியிலிருந்து சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க பழனிச்சாமி மகன்
திரு.வி.பி.ராமசாமி என்பவருக்கு, , 1959 - ஆம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகைவிதி -
19(1) மற்றும் 33 ன் படி குத்தகை குறித்த நிபந்தனைகளின் பேரில் குவாரி குத்தகை உரிமம்
வழங்க பரிந்துரை செய்து, மாவட்ட ஆட்சியருக்கு கடித வரைவு வைக்கவும்.


வருவாய் கோட்டாட்சியர்,
திருப்பூர்.

Greenbelt Development and Fencing of Lease Area of Thiru.B.Karthik



Greenbelt Development and Fencing of Lease Area of Thiru.V.P.Ramasamy



Fencing Photo of Lease Area of Thiru.B. Karthik



Greenbelt Development and Fencing of Lease Area of Thiru.V.P.Ramasamy



ABM ENVIRO LAB

(A Unit of Aadhi Boomi Mining and Enviro Tech (P) Ltd.,)



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Mob: 9842729655, 9443290855



suriyakumarsemban@gmail.com / abmenvirotech@gmail.com

TEST REPORT

Sample ID:ABMEL/2025-TR-17		Report Date:31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone	Sample Code	ABMEL/W/21(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

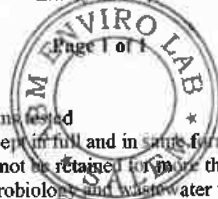
Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	7.31
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	2870
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.2
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	16
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	1752
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	344
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	84
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	33
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	228
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	292
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	292
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	40
15	Iron	IS 3025 (Part 53): 2024	mg/l	1.54

BDL = Below Detectable Limit; DL = Detection Limit**For ABM ENVIRO LAB**

Verified By

TECHNICAL MANAGER
ABM ENVIRO LAB

----- End of the Report -----



Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

- Note: 1. Test Results Shown in this test report only to the items tested
2. This test report shall not be reproduce anywhere except in full and in same format without the approval of the laboratory
3. Unless informed by the customer the test items will not be retained for more than 10days from
The date of issue of test report (exceptional for microbiology and wastewater for which retaining time 7 days)

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TEST REPORT

Sample ID:ABMEL/2025-TR-17		Report Date:31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-1	Sample Code	ABMEL/W/22(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	7.54
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	1024
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.6
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	8
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	604
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	115
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	29
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	10
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	104
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	123
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	123
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	25
15	Iron	IS 3025 (Part 53): 2024	mg/l	0.942

BDL = Below Detectable Limit; DL = Detection Limit

For ABM ENVIRO LAB

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

----- End of the Report -----

Page 1 of 1

Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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Narasothipatti, Salem - 636004, Tamil Nadu
Mob: 9842729655, 9443290855



suriyakumarsemban@gmail.com / abmenvirotech@gmail.com

TEST REPORT

Sample ID:ABMEL/2025-TR-17		Report Date:31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/W/23(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	7.58
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	937
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.1
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	4
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	552
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	280
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	86
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	15
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	58
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	188
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	188
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	29
15	Iron	IS 3025 (Part 53): 2024	mg/l	0.07

BDL = Below Detectable Limit; DL = Detection Limit

For ABM ENVIRO LAB

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

----- End of the Report -----

Page 1 of 1

Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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ABM ENVIRO LAB

(A Unit of Aadhi Boomi Mining and Enviro Tech (P) Ltd.,)



NIPBASS PLAZA
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Narasothipatti, Salem - 636004, Tamil Nadu
Mob: 9842729655, 9443290855



suriyakumarsemban@gmail.com / abmenvirotech@gmail.com

TEST REPORT

Sample ID:ABMEL/2025-TR-17		Report Date:31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/W/24(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	6.86
2	Electrical Conductivity (EC)	IS 3025 (Part 14): 2013	µs/cm	2870
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS 3025 (Part 9): 2023	°C	25.4
5	Total Suspended Solids (TSS)	IS 3025 (Part 17): 2022	mg/l	16
6	Total Dissolved Solids (TDS)	IS 3025 (Part 16): 2023	mg/l	1734
7	Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009	mg/l	488
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	111
9	Magnesium as Mg	IS 3025 (Part 46): 2023	mg/l	51
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	190
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 2023	mg/l	114
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	114
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	54
15	Iron	IS 3025 (Part 53): 2024	mg/l	1.02

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For ABM ENVIRO LAB

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

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suriyakumarsemban@gmail.com / abmenvirotech@gmail.com

TEST REPORT

Sample ID:ABMEL/2025-TR-17		Report Date:31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Aarumuthampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/W/25(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	6.98
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	1044
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.4
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	8
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	612
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	136
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	35
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	12
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	106
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	147
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	147
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	26
15	Iron	IS 3025 (Part 53): 2024	mg/l	0.856

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Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

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For ABM ENVIRO LAB

Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone	Sample Code	ABMEL/S/21(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.6
2	pH	IS 2720 (Part 26): 1987	----	6.98
3	Electrical Conductivity	IS14767: 2000	µS/cm	214
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.04
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	44
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.8
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.0
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.4
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.2

BDL = Below Detectable Limit ; DL = Detection Limit

S. Santhi

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

----- End of the Report -----

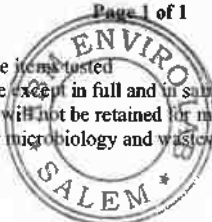
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/S/22(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.4
2	pH	IS 2720 (Part 26): 1987	----	7.03
3	Electrical Conductivity	IS14767: 2000	μS/cm	295
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.08
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	56
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.2
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	0.6
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	0.9
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.26

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S. Senthil
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TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar
Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/S/23(b)
Date of Sampling	23.05.2025	Sample Description	Red Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.1
2	pH	IS 2720 (Part 26): 1987	---	7.63
3	Electrical Conductivity	IS14767: 2000	μS/cm	294
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.30
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	56
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	2.2
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	0.6
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.8
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.4

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S. Santhi

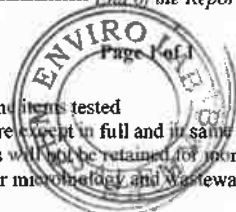
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TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar
Authorized SignatoryReviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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NIPBASS PLAZA
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Narasothipatti, Salem - 636004, Tamil Nadu

Mob: 9842729655, 9443290855

suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TC-14922

TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/S/24(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	1.8
2	pH	IS 2720 (Part 26): 1987	----	7.74
3	Electrical Conductivity	IS14767: 2000	μS/cm	174
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.22
5	Water Holding capacity	ABMEL/CH/S/SOP/05:(Issue No: 01, Issue Date: 03.06.2024)	%	64
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.2
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	5.7
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.2

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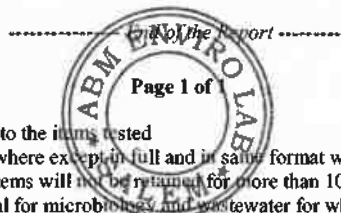
Verified BY

**TECHNICAL MANAGER
ABM ENVIRO LAB**

For ABM ENVIRO LAB

S. Suriya Kumar
Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory



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**TEST REPORT**

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Aarumuthampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/S/25(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.7
2	pH	IS 2720 (Part 26): 1987	----	7.14
3	Electrical Conductivity	IS14767: 2000	µS/cm	254
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.15
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	48
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	0.8
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	0.6
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	0.7
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.3

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TECHNICAL MANAGER
ABM ENVIRO LAB



For ABM ENVIRO LAB

S. Suresh Kumar
Authorized Signatory

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Mr. S. SURESH KUMAR
Quality Manager
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TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone	Sample Code	ABMEL/S/21(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	48
		Silt		%	24
		Clay		%	28
					Sandy Clay Loam
BDL = Below Detectable Limit ; DL = Detection Limit					

S. Santhi
Verified BY
TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB
S. Suriya Kumar
Authorized Signatory
Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
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TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/S/22(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Texture	IS 10317: 2024		
			%	54
			%	24
			%	22
				Sandy Clay Loam
BDL = Below Detectable Limit ; DL = Detection Limit				

S. Santhi..

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar
Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
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TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/S/23(b)
Date of Sampling	23.05.2025	Sample Description	Red Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	52
		Silt		%	28
		Clay		%	20
					Sandy Loam
BDL = Below Detectable Limit ; DL = Detection Limit					

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TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

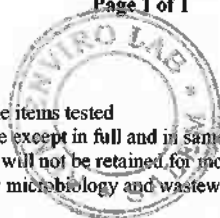
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TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/S/24(b)
Date of Sampling	23.05.2025	Sample Description	Red Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	48
		Silt		%	32
		Clay		%	20
					Sandy Loam
BDL = Below Detectable Limit ; DL = Detection Limit					

S. Santhi...

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

Authorized Signatory

Reviewed & Authorized by

Mr. S. SURIYA KUMAR

Quality Manager
Authorized Signatory

----- End of the Report -----

Page 1 of 1

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TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Aarumuthampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/S/25(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	52
		Silt		%	28
		Clay		%	20
					Sandy Loam
BDL = Below Detectable Limit ; DL = Detection Limit					

S. Santhi...

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

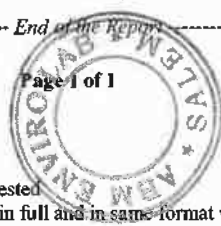
S. Suriya Kumar

Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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Page 1 of 1



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Mob: 9842729655, 9443290855

 suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TC-15622

TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone	Sample Code	ABMEL/A/21(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	26
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	47
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	15
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	22
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	30
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	26
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)
BDL = Below Detectable Limit; DL = Detection Limit				

V. Lax

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB


Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/A/22(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	27
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	49
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	16
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	25
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	29
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	25
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)

BDL = Below Detectable Limit; DL = Detection Limit

For ABM ENVIRO LAB

V. Jay
Verified BY

**TECHNICAL MANAGER
ABM ENVIRO LAB**

G. Anjiah
Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory



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TC-10822

TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/A/23(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	27
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	53
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	13
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	21
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	26
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	22
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)
BDL = Below Detectable Limit; DL = Detection Limit				

For ABM ENVIRO LAB


Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB



Authorized Signatory
Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Vellampalayam, Rough Stone and Gravel Quarry, Tiruppur District		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/A/24(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	26
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	49
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	15
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	27
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	29
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	25
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)
BDL = Below Detectable Limit; DL = Detection Limit				

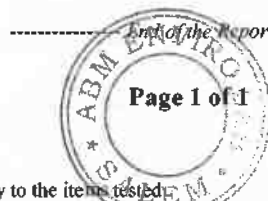
V. Kumar
Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar
Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory



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**TEST REPORT**

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Aarumuthampalayam, Rough Stone and Gravel Quarry, Tiruppur District		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/A/25(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	29
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	48
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	14
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	22
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	32
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	27
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)

BDL = Below Detectable Limit; DL = Detection Limit

V.1mg
Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

Authorized Signatory

Reviewed & Authorized by

Mr. S. SURIYA KUMAR

Quality Manager

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**TEST REPORT**

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone	Sample Code	ABMEL/N/21(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/QSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	N	39.4
2				W	39.8
3				E	36.8
4				S	40.4
5				Core Zone	40.9
BDL = Below Detectable Limit; DL = Detection Limit					

Verified By

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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TEST REPORT

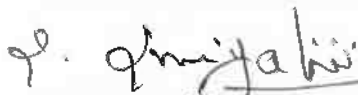
Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Iduvai, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/N/22(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/QSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-I	36.9
BDL = Below Detectable Limit; DL = Detection Limit					


Verified By

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB


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Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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TC-15822

TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/N/23(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/QSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-II	37.4
BDL = Below Detectable Limit; DL = Detection Limit					

V. Jang
Verified By

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

g. Prinjahis
Authorized Signatory

Reviewed & Approved by
Mr. S. SURIYAKUMAR
Quality Manager
Authorized Signatory

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TC-16822

TEST REPORT

Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Vellllampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/N/24(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/OSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-III	39.5
BDL = Below Detectable Limit; DL = Detection Limit					

For ABM ENVIRO LAB

V.ing
Verified By

TECHNICAL MANAGER
ABM ENVIRO LAB

Authorized Signatory

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Quality Manager
Authorized Signatory

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TEST REPORT

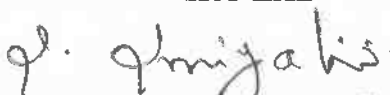
Sample ID:ABMEL/2025/TR-17		Report Date: 31.05.2025	
Customer Name	Thiru.B.Karthick,Ramasamy.		
Address	Aarumuthampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/N/25(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/OSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-IV	40.2
BDL = Below Detectable Limit; DL = Detection Limit					


Verified By

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB


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Quality Manager
Authorized Signatory

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S. KALYANASUNDARAM, I.F.S.(Retd.)
CHAIRMAN



STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY – TAMIL NADU

3rd Floor, Panagal Maaligai,
No.1 Jeenis Road, Saidapet,
Chennai-15.

Phone No.044-24359974

Fax No. 044-24359975

ENVIRONMENTAL CLEARANCE

Lr. No.SEIAA-TN/F.No.4979/EC/1(a)/2851/2015 dated:15.02.2016

To
Thiru V.P.Ramasamy
Veerankattu Thottam,
No.63, Vellampalayam Village,
Palladam Taluk,
Tiruppur District

Sub: SEIAA-TN – Proposed Rough Stone & Gravel quarry located at S.F.No 286/1 (P), Iduvai Village, Tiruppur Taluk, Tiruppur District- issue of Environmental Clearance – Reg.

Ref: 1. Your Application for Environmental Clearance dt: 25.01.2016
2. Minutes of the 72th SEAC held on 04.02.2016, 05.02.2016 & 06.02.2016
3. Minutes of the SEIAA meeting held on 15.02.2016

Details of Minor Mineral Activity:-

This has reference to your application first cited. The proposal is for obtaining environmental clearance for mining/quarrying of minor minerals based on the particulars furnished in your application as shown below.

1	Name of Project Proponent and address	Thiru V.P.Ramasamy Veerankattu Thottam, No.63, Vellampalayam Village, Palladam Taluk, Tiruppur District
2	Location of the Proposed Activity	
	Survey Number	286/1 (P)
	Latitude and Longitude	11°03'43"N to 11°03'49"N 77°16'52"E to 77°16'56"E
	Village	Iduvai

	Taluk	Tiruppur
	District	Tiruppur
3	Proposed Activity	
	i. Minor mineral	Rough Stone & Gravel
	ii. Mining Lease Area	1.59.0 Ha
	iii. Approved quantity	37475 cu.m of Rough stone and of gravel
	iv. Depth of Mining	12 m
	v. Type of mining	Opencast Semi Mechanised Mining
	vi. Category(B1/B2)	B2
	vii. Precise area communication	Na.Ka.658/Kanimam/2015 dated:15.01.2016
	viii. Mining plan approval	Assistant Director Rc.No.658/Mines/2015 dated:22.01.2016
	ix. Mining lease period	5 Years
4	Whether Project area attracts any General conditions specified in the EIA notification, 2006 as amended:-	Not attracted. Affidavit furnished
5	Man Power requirement per day:	12 Employees
6	Utilities	
	i. Source of Water :	Water vendors/Existing Borehole
	ii. Quantity of Water Requirement in KLD:	
	a. Domestic	0.3KLD
	b. Industrial	} 0.7KLD
	c. Green Belt & Dust Suppression	
	iii. Power Requirement:	
	a. Domestic Purpose	TNEB
	b. Industrial Purpose	31634 Liters of HSD
7	Cost	
	i. Project Cost	Rs.49.77 Lakhs
	ii. EMP Cost	Rs.7.60 Lakhs
8	Public Consultation:-	Not required as per O.M. dated of MoEF, Govt.
9	Date of Appraisal by SEAC:- Agenda No:	04.02.2016,05.02.2016 & 06.02.2016 72-199
10	Date of Review/Discussion by SEIAA and the Remarks:-	
	The proposal was placed before the SEIAA in its 163 rd Meeting held on 15.02.2016. Authority after careful consideration, decided to grant environmental clearance to the Mining of Rough Stone & Gravel to terms and conditions stipulated under the Environment Impact Assessment Notification, 2006 as amended.	
11	Validity:	
	The Environmental Clearance will be coterminous with the mine lease period or maximum period of 5 Years from the date of issue whichever is earlier.	

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Conditions to be Complied before commencing mining operations:-

1. The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
 - I. The project has been accorded Environmental Clearance.
 - II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - III. Environmental Clearance may also be seen on the website of the SEIAA.
 - IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.
2. The applicant has to obtain land use classification as industrial use before issue/renewal of mining lease.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
13. A minimum distance of 15 mts. From any civil structure shall be kept from the periphery of any excavation area.

14. Depth of quarrying shall be 2m above the ground water table /approved depth whichever is lesser to be considered as a safe guard against Environmental Contamination over exploitation of resources.
15. The mined out pits should be backfilled where warranted and area should be landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
16. Wet drilling method is to be adopted to control dust emissions. Delay detonators and tube initiation system for blasting shall be used so as to reduce vibration and dust.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
18. The explosives shall be stored at site as per the conditions stipulated in the permits issued by the licensing Authority.
19. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
20. A study has to be conducted to assess the optimum blast parameters and blast design to ensure the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified locations to be conducted and records kept for inspection.
21. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF, GoI on 16.11.2009.
22. The following measures are to be implemented to reduce Air Pollution during transportation of mineral:
 - i. Roads shall be graded to mitigate the dust emission.
 - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust.
23. The following measures are to be implemented to reduce Noise Pollution:
 - i. Proper and regular maintenance of vehicles and other equipment.
 - ii. Limiting time exposure of workers to excessive noise.
 - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
 - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.

Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoE&F, GoI to control noise to the prescribed levels.

Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.

Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.

Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.

The following measures are to be adopted to control erosion of dumps:-

- Retention/ toe walls shall be provided at the foot of the dumps.
- Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.

Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and trans boundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by TNPCB.

Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

Rain water harvesting to collect and utilize the entire water falling in land area should be provided.

Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.

3. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that

- the groundwater table is getting depleted due to the mining activity; necessary measures shall be carried out. District Collector/mining officer shall ensure this.
34. No tree-felling shall be done in the leased area, except only with the permission of competent Authority.
 35. To take up environmental monitoring of the proposed quarry site before, during and after mining activities including vibration study data, water, air & flora/fauna environment, water generated/disposed and method of disposal, involving a reputed academic Institution.
 36. It shall be ensured that the total extent of nearby quarries (existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 25 Ha within the mining lease period of this application.
 37. It shall be ensured that there is no habitation is located within 500 meter radius from periphery of the quarry site and also ensure that no hindrance will be caused to the people the habitation located within 500m radius from the periphery of the quarry site.
 38. Ground water quality monitoring should be conducted once in 3 Months.
 39. Transportation of the quarried materials shall not cause any hindrance to the people/Existing Village road.
 40. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF, GOI.
 41. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF, GOI.
 42. Bunds to be provided at the boundary of the project site.
 43. Ground water quality monitoring should be conducted once in 3 Months.
 44. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
 45. At least 10 Neem trees should be planted around the boundary of the quarry site.
 46. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
 47. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity.
 48. The Project Proponent shall provide solar lighting system to the nearby villages.
 49. The Project Proponent shall comply with the mining and other relevant rules and regulations wherever applicable.
 50. Rainwater shall be pumped out Via Settling Tank only.
 51. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
 52. As per MoEF&CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry and Wild Life angle including clearance from obtaining committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10KM from National Park and Sanctuaries.
 53. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be monitored by the District Authorities.
 54. Safety equipments to be provided to all the employees.
 55. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai.

General Conditions:

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent for Establishment from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, Masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
12. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Chennai.

16. The Environmental Clearance does not absolve the applicant/proponent obligation/requirement to obtain other statutory and administrative clearances from statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities shall be considering the project on merits and be taking decisions independently on Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the environmental clearance granted to this project if the provisions of EIA Notification, 2006, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the environmental clearance.
20. Failure to comply with any of the conditions mentioned above may result in withdrawal of clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
21. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1986, Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.
22. Any other conditions stipulated by other Statutory/Government authorities shall be complied with.
23. Any appeal against this environmental clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

[Signature]
CHAIRMAN
SEIAA

Copy to:

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary, Environment and Forests Department, Government of Tamil Nadu, Tamil Nadu.
3. The Additional Chief Secretary, Industries Department, Government of Tamil Nadu, Tamil Nadu.
4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai - 34.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, Arjun Nagar, New Delhi-110 032.
6. The Chairman, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-32
7. The District Collector, Tiruppur District
8. The Commissioner of Geology and Mines, Guindy, Chennai-32
9. El Division, Ministry of Environment & Forests, Parivaran Bhawan, New Delhi.
10. Spare.



TAMILNADU POLLUTION CONTROL BOARD

251782

CONSENT ORDER NO. 1708110994540
DATED: 09/10/2017.
PROCEEDINGS NO.F.1301TPN/RS/DEE/TNPCB/TPN/W/2017 DATED: 09/10/2017

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT – M/s. V P RAMASAMY QUARRY, S.F.No. 286/1(p), IDUVOI village, Tiruppur south Taluk and Tiruppur District - Renewal of Consent for the operation of the plant and discharge of sewage and/or trade effluent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974) – Issued- Reg.

REF: 1. CTO. Proc. No. F.1301TPN/RS/DEE/TNPCB/TPN/W&A/2016 DATED: 02/05/2016.
2. Unit's letter for renewal consent dated : 01/09/2017
3. Minutes of 96th DLCCC meeting dated:15/09/2017

RENEWAL OF CONSENT is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act, 6 of 1974) (hereinafter referred to as "The Act") and the rules and orders made there under to

The Proprietor
M/s.V P RAMASAMY QUARRY,
S.F.No. 286/1(p),
IDUVOI Village,
Tiruppur south Taluk.,
Tiruppur District.

Authorising the occupier to make discharge of sewage and /or trade effluent.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This RENEWAL OF CONSENT is valid for the period ending March 31, 2018

**ELANKUMARAN
KESAVAN**

Digitally signed by
ELANKUMARAN KESAVAN
Date: 2017.10.09 13:45:15 +0530'

**District Environmental Engineer,
Tamil Nadu Pollution Control Board,
TIRUPPUR NORTH**