DRAFT EIA & EMP FOR

PROPOSED ROUGH STONE QUARRY

CATEGORY – B1

(Submitted for Public Hearing as per the provisions of EIA Notification 2006 & its amendments thereof)

ToR Identification No. TO25B0108TN5955548N (F.No. 12490), Dated 25.09.2025

PROPOSED QUARRY LEASE DETAILS	
SURVEY NOS	**10/1(Block-2)**
VILLAGE	**PADALUR (EAST)**
TALUK	**ALATHUR**
DISTRICT	**PERAMBALUR**
EXTENT	**1.40.60 Ha**
CLUSTER EXTENT	**16.03.60 Ha**
PROPOSED PRODUCTION OF ROUGH STONE	**TOTAL ROUGH STONE: 3,56,042 m^3 (10 YEARS)** **FIRST FIVE YEARS – 1,78,472 m^3** **SECOND FIVE YEARS – 1,77,570 m^3** **PEAK PRODUCTION: 35,890 m^3 (10TH YEAR)**
LAND	**GOVERNMENT PORAMBOKE LAND**

(Sector No. 1(a) Sector No.1 as per NABET)
Category of the Project: B1 Cluster Mining, Total Cluster Area – 16.03.60 Ha
Baseline Monitoring Period – March 2025 to May 2025

APPLICANT

THIRU.L. HARIHARAN,

NO.9, DHANALAKSHMI STREET, POSTAL NAGAR,

NEMILICHERI, CHROMPET, KANCHEEPURAM DISTRICT - 600 044.

ENVIRONMENTAL CONSULTANT	LABORATORY
M/s. GLOBAL MINING SOLUTIONS *(NABET Accredited & ISO 9001 Certified Consultant)* Plot No. 6, S.F.No. 13/2, A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455. NABET Accreditation No: NABET/EIA/23-26/SA 0241, Valid Until - 03.02.2026 Contact: 97502 23535 & 94446 54520 Email: infoglobalmining@gmail.com, globalminingsolutionssalem@gmail.com	**M/s. SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE LIMITED** (NABL Accredited Testing Laboratory) Valid Until -29.09.2029 #416/15, Dhargas Road, Perungalathur, West Tambaram, Chennai, Tamil Nadu, India.

AMENDMENT PAGE

SL	Page No.	Section / Clause / Para / Line (as Applicable)	Date of Amendment	Amendment Made	Reasons of amendment	Signature of Person Authorizing Amendment
1						
2						
3						
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7						
8						
9						
10						

ACKNOWLEDGEMENT

M/s. Global Mining Solutions, Salem is very much thankful to Thiru.L.Hariharan, Lessee for the confidence and trust placed on the organization for carrying out Environmental Impact Assessment (EIA) study for the proposed Rough Stone quarry over a lease extent of 1.40.60 Ha., & Cluster extent of 16.03.60 Ha., located at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State and formulating the Environmental Management Plan (EMP). We also gratefully acknowledge the cooperation and assistance provided by concerned government authorities for collection of secondary information for the preparation of Draft EIA/EMP report. Our sincere thanks to the local people of Padalur (East) Village and the nearby villages for their whole hearted cooperation and constant involvement during the entire field study without which the study would not have been possible.

For: M/s. Global Mining Solutions

(M. Prabu)

Managing Director

UNDERTAKING

In line with MoEF OM No. J – 11013/41/2006-IA. II (I) dated 5th October 2011, we hereby give our undertaking for owning the content and information in the EIA/EMP report submitted for EC of the proposed Rough Stone quarry over a lease extent of 1.40.60 Ha., & Cluster extent of 16.03.60 Ha located at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.

For: M/s. Global Mining Solutions

M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

UNDERTAKING

In Line with OM no. J-11013/41/2006-IA.II (1)(Part) dated 29th Aug 2017 and its Amendments, we hereby confirm that all Terms of Reference issued by Ministry of Environment, Forest and Climate Change vide ToR Identification No. TO25B0108TN5955548N (F.No. 12490), dated 25.09.2025 of Draft EIA/EMP report for the proposed Rough Stone Quarry over a lease extent of 1.40.60 Ha., & Cluster extent of 16.03.60 Ha., located at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State for the production of 3,56,042 m^3 (10 years) of Rough Stone from the proposed lease area and the details has been complied in the EIA/EMP report is factually correct.

The EIA/EMP report has been prepared by M/s. Global Mining Solutions (GMS), Salem. GMS is a NABET accredited consultant for preparation of EIA/EMP report of Mining of Minerals (Opencast & Under Ground Mining) vide certificate No. NABET/EIA/23-26/SA 0241, valid till 04.01.2026.

For: M/s. Global Mining Solutions

M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

भारतीय गुणवत्ता परिषद्
QUALITY COUNCIL OF INDIA
QCI Creating an Ecosystem for Quality

NABET

National Accreditation Board for Education and Training

Certificate of Accreditation

Global Mining Solutions

Plot No - 6 SF No 13/2 A2, VS City, RC Chettypatty, Kottamettupatty,Omalur, Salem, Tamil Nadu-636455

*The organization is accredited as **Category-A** under the QCI-NABET **Scheme for Accreditation of EIA Consultant Organization, Version 3**: for preparing EIA/EMP reports in the following Sectors-*

S. No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals including opencast/ underground mining	1	1 (a) (i)	A
3	Thermal power plants	4	1 (d)	B
5	Metallurgical industries (ferrous)	8	3 (a)	A
6	Cement Plants	9	3 (b)	A
26	Building and construction projects	38	8 (a)	B
27	Townships and Area development projects	39	8 (b)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in SAAC minutes dated May 20, 2025, posted on QCI-NABET website.

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/25/3638 dated May 30, 2025. The accreditation needs to be renewed before the expiry date Eco Chem Sales and Services, Surat following due process of assessment.

Valid up to
January 4, 2026

Issue Date
May 30, 2025

Certificate No.
NABET/EIA/23-26/SA 0241

Varinder Kanwar

Prof (Dr) Varinder S Kanwar
CEO - NABET

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

DECLARATION BY EXPERTS

Declaration by Experts contributing to the proposed Rough Stone Quarry over a lease extent of 1.40.60 Ha. & Cluster extent of 16.03.60 Ha located at Padalur (East) Village, Alathur Taluk, Perambalur District, and Tamil Nadu State.

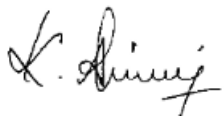
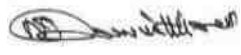
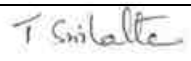
I, hereby, certify that I was a part of the EIA team that developed the above EIA.

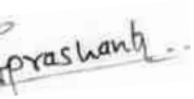
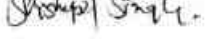
EIA Coordinator Name: Manikandan Manickam

Period of involvement: March 2025 to May 2025.

Contact information:

M/s Global Mining Solutions
Plot No.6, SF No. 13/2, A2, VS City, RC Chettypatty,
Kottamettupatty, Omalur,
Salem, Tamil Nadu – 636 455.

S. No.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and Date
1	*AP*	*Dhanalakshmi Ramanathan*	*Assessment of existing air quality, Impact of the project on ambient air and suggested mitigation measures for air pollution.* *Period: March 2025 to May 2025.*	
2	*WP*	*Abirami Kaliaperumal*	*Assessment of existing water quality, impact of the project on surface and ground water quality, suggested mitigation measures for minimizing the impact.* *Period: March 2025 to May 2025.*	
3	*SHW*	*Ramadoss N*	*Assessment of waste generated from the project, suggested waste management practices.* *Period: March 2025 to May 2025.*	
4	*SE*	*Sarasvathy K*	*Baseline SE studies. Data compilation and assessment. Impact of the project on SE status of the area. Formulation of CER plan.* *Period: March 2025 to May 2025.*	
5	*EB*	*Saravanan S*	*Baseline data collection of related to ecology of the area.* *Period: March 2025 to May 2025.*	
6	*HG*	*Ravinthiran N*	*Hydrogeological feature of the area. Ground water depth and impact of project on ground water of the area.* *Period: March 2025 to May 2025.*	
7	*AQ*	*Srilatha Thiruveedhula*	*Air quality modeling utilizing the area source model.*	

			Predication of the ground level concentration of the dust. Suggesting suitable mitigation measures. *Period: March 2025 to May 2025.*	
8	*NV*	*Dhanalakshmi Ramanathan*	*Ambient noise study of the area. Incremental noise generation due to quarry operation and impact of the noise due to the project.* *Period: March 2025 to May 2025.*	
9	*LU*	*Srilatha Thiruveedhula*	*Preparation of land use map based on satellite imagery. Land use classification and analysis. Impact prediction of the project on the surrounding land environment.* *Period: March 2025 to May 2025.*	
10	*RH*	*S.V. Prashant*	*Identification of the Risk related to the mining activities. Preparation of emergency disaster management plan. Plan for supply of safety equipment for the worker.* *Period: March 2025 to May 2025.*	
11	*SC*	*Shisupal Sing*	*Soil monitoring, secondary data collection on soil type, soil management practices, utilization of topsoil.* *Period: March 2025 to May 2025.*	
12	*GEO*	*Valliappan Meyyappan*	*Geological map, stability of quarry and dump, management plan for mine stability, after use of mining quarry and geological feature of the area.* *Period: March 2025 to May 2025.*	

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COMPLIANCE TO TERMS OF REFERENCE

wind

S.No	ToR Points	Reply	Pg. No
1. SEAC Conditions - Site Specific			
1.	**Major Condition** 1. The PP shall furnish modified MP incorporating benches on all the sides along with EIA Report.	Agreed, The revised mining plan work is in progress, it will be submitted along with Final EIA report.	-
	General Site-Specific Condition: 1. 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 statutory personnel, appropriate environmental monitoring, good maintenance of haul roads and village/panchayat roads, authorized blasting operation 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.	A cluster management committee including all the proponents of the rough stone quarrying projects within the cluster of 500 m radius will be constituted for the effective implementation of appropriate environmental management plan. Affidavit in this regard will be submitted during final EIA/EMP Report.	-
2	The PP should submit an affidavit to follow the scientific formation of benches for 5m *5m properly during mining as per the approved mining plan.	Agreed, An affidavit for stipulated bench formation will be incorporated in the Final Report.	-
3	The PP shall install the CCTV camera for the continuous surveillance of mining activity & furnish the photographic / videographic evidence along with the EIA report.	Agreed, The PP will install CCTV at the proposed mine lease area and submit proof in the Final EIA/EMP report.	-

<table>
<tr><td>2</td><td colspan="3">SEAC Standard Condition</td></tr>
<tr><td>1</td><td>In the case of existing/operation 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 lining lease area
(viii) Condition of Safety zone/benches
(ix) Revised/Modified Mining Plan showing the benches of not exceeding 6m height and ultimate depth of not exceeding 50m.</td><td>The applied area was previously operated by some other lessee. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below.
<table><tr><td>Pit No</td><td>Length in (m)</td><td>Width in (m)</td><td>Depth in (m)</td></tr><tr><td>Pit I</td><td>88</td><td>48</td><td>5m AGL</td></tr></table></td><td>-</td></tr>
<tr><td>2</td><td>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.</td><td>The VAO certificate is enclosed as Annexure – 4.</td><td>-</td></tr>
<tr><td>3</td><td>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</td><td>A Site survey has been conducted to identify and list structures located within a 300 m radius from the proposed Quarry and structures located within 300 m radius are given in section 3.3 of Chapter 3.
There is only one crusher plant within a 300-meter radius.</td><td>101</td></tr>
</table>

	residents, their profession and income, etc.		
4	The PP shall submit a detailed hydrogeological 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 study is under progress. It will be incorporated in the final EIA & EMP.	-
5	The Project Proponent shall carry out Bio-diversity study through reputed institution and the same shall be included in the EIA report.	The bio diversity study has been carried out by our FAE is given in section 3.3.6 of Chapter 3.	129
6	The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries. Tiger reserve etc. upto a radius of 25 km from the proposed site.	The DFO letter stating that the proximity distance of RF & PF to be incorporated at the time of final EIA submission.	-
7	In 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, Suratkal 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 slope stability study will be carried out through reputed institute once the depth of the mining reaches 25 m.	-

<table>
<tr><td>8</td><td>However, in case of the fresh/virgin quarries, the project shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30m below ground level.</td><td>The ultimate depth for this proposal (Ten years) is 81m (61m AGL& 20m BGL). The slope stability study will be carried through reputed Institute once the depth reaches 25 m.</td><td>-</td></tr>
<tr><td>9</td><td>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, ll/l Class mines manager appointed by the proponent</td><td>Affidavit will be incorporated in the Final EIA Report</td><td>-</td></tr>
<tr><td>10</td><td>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</td><td>Controlled blasting techniques using delay detonators and optimum charge per delay will be implemented in this quarry. The details on blasting parameters are given in section 2.8.2 of Chapter 2.</td><td>83</td></tr>
<tr><td>11</td><td>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.</td><td>The PP has not carried out any quarrying operation before this project.</td><td>-</td></tr>
<tr><td>12</td><td>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</td><td>The applied area was previously operated by some other lessee. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below.
<table>
<tr><td>Pit No</td><td>Length in (m)</td><td>Width in (m)</td><td>Depth in (m)</td></tr>
<tr><td>Pit I</td><td>88</td><td>48</td><td>5m AGL</td></tr>
</table></td><td>-</td></tr>
<tr><td>13</td><td>What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?</td><td></td><td>-</td></tr>
<tr><td>14</td><td>Quantity of minerals mined out.
• Highest production achieved in any one year.
• Detail of approved depth of mining.</td><td></td><td>-</td></tr>
</table>

	• 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 comer 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).	Project coordinates superimposed in satellite imagery and given as Figure No – 2.2 in Chapter – 2. The geology and geomorphology map are provided in Figure No.3.23, 3.24 Chapter 3. The Soil map is provided under Figure No. 3.25, Chapter-3. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 & Figure 3.5 in Chapter – 3.	66 98 & 104 150 & 151
16	The PP shall carry out Drone video survey covering the cluster, green belt, fencing etc.,	It will be complied after commencement of the mining operation	-
17	The proponent shall furnish photographs of adequate fencing, greenbelt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan	There are no trees within ML area. Fencing and plantations are under process and photo proof of the same will be incorporated in the Final EIA report. There are no permanent structures within a 50-meter radius of the proposed project site, and a safety distance of 10 meters along the boundary has been provided. There is Tank situated on southern side and is 320m away from the area.	-
18	The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated	The total geological reserves of Rough stone - 9,42,372 m^3.	

	impacts of the mining operations on the surrounding, environment and the remedial measures for the same.	The mineable reserves of rough stone – 3,56,042 m^3. The need and justification of the project is given in chapter 2. The anticipated impact and its mitigation measures are detailed 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 Mines Act'1952 and the MMR" 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.	Complied. Please refer Fig. 10.1	214
20	The Project Proponent shall conduct the Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD/TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitoring data, it may clearly be shown whether working all intersect ground water. Necessary data and documentation in this regard may be provided.	The hydrogeological study from a reputed institute is in progress and it will be incorporated in the final EIA report.	-
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 were collected (March 2025 to May 2025) for the environmental components including land, soil, water, air, noise, biology, socio-economy, and the results have been discussed in Chapter 3. Traffic density survey is detailed in section 2.10.6 of Chapter 2.	92 & 96

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 air pollution, water pollution, & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.	Detailed cumulative impact study has been carried and the same is incorporated in the Chapter 4 & 7. Accordingly, a detailed Environment Management Plan is prepared considering air, water, noise and soil environment and the details are given in Chapter 10.	153, 200 & 210
23	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	Rain water harvesting Plan is given in chapter 4.	162
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.	Satellite imagery has been used to study the lease area and the details of land use is given in Chapter 3.	136
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. There is no generation of the OB & waste.	-
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 famishedto	No proximity to Critically polluted areas.	-

	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.	The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. Towards surface runoff management, a garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users. Rain water harvesting plan is given in section 4.2.3 of Chapter 4.	162
28	Impact on local transport infrastructure due to the Project should be indicated	A traffic density study was carried out and are detailed in section 2.10.6 of Chapter 2.	**92**
29	A tree survey shall be carried out (Nos. name of species, age, diameter, etc) both within the mining lease applied area & 300m buffer zone and its management during mining activity	The details on tree survey covering 300 m radius is given in section 3.7.7 of chapter 3.	**129**
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 details are given in section 2.9 of Chapter 2	87
31	As 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, where ever possible	Accepted. It will be done.	**-**
32	The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the	Green belt is proposed in an area of 0.46.10 ha. A detailed green belt development plan has been	169

	noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix – I in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.	provided in Table 4.2.3 of Chapter 4.	
33	Taller/one year old saplings raised in appropriate size of bags; preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/horticulturist with regard to site-specific choices. The proponent shall earmark the green belt area with GPS coordinates all along the boundary of the project site with at least 3 m wide and in between blocks in an organized manner	The FAE of ecology and biodiversity has advised the project proponent that saplings of one year old raised in the ecofriendly bags should be purchased and planted with the spacing of 3 m between each plant around the proposed project area as per the advice of local forest authorities/botanist.	-
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.	A disaster management plan is prepared and the details are given in Chapter 7.	198
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 its management is given in Chapter 7.	194
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.	Occupational Health Impacts of the project and preventive measures are detailed under Chapter 4.	186

<table>
<tr><td>37</td><td>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.</td><td>No major impact on public health will be there since the villages are located more than 1km from the lease area.
Details of CER and CSR are discussed under Chapter No. 8</td><td>-</td></tr>
<tr><td>38</td><td>The Socio-economic studies should be carried out within a 5km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.</td><td>Socio economic study is conducted both by visits and secondary data collection.

Details are given in Chapter 3</td><td>139</td></tr>
<tr><td>39</td><td>Details of litigation pending against the project, if any, with direction /order passed by any Court of law against the Project should be given.</td><td>No litigation is pending</td><td>-</td></tr>
<tr><td>40</td><td>Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.</td><td>Benefits of the project is given in Chapter 8</td><td>206</td></tr>
<tr><td>41</td><td>If any quarrying operations were carried out in the proposed quarrying site for which now 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.</td><td>The applied area was previously operated by some other lessee. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below.
<table>
<tr><th>Pit No</th><th>Length in (m)</th><th>Width in (m)</th><th>Depth in (m)</th></tr>
<tr><td>Pit I</td><td>88</td><td>48</td><td>5m AGL</td></tr>
</table></td><td>-</td></tr>
</table>

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 is planned for the entire life of the mine. The affidavit for the same will be included in the Final EIA/EMP Report.	-
43	Concealing any factual information or submission of false/fabricated data and failure to comply with any of the condition mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986	Agreed	-
SEIAA Standard Conditions			
4.0 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.	There are one existing quarry and ten proposed quarries including this proposal within a 500-metre radius. The proponent will take the initiative to form a cluster management committee once environmental clearance is obtained for this quarry as well as the other 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.,	Agreed. Will be complied.	-
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 after obtaining Environmental Clearance.	-
4	Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.	Agreed. Details of the Operation plan for cluster mining operations will be submitted once we get environmental clearance for all quarries proposed in the cluster area.	-

5	The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.	Risk management plan for the individual quarry is given in this report. As far as cluster working condition is concerned, once the committee is formed, risk management as a cluster including inundation of clusters and the evacuation plan will be elaborated and the same will be submitted to the EIA.	-
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.	Environmental policy for the cluster will be framed by the cluster management committee and the policy will be in accordance with EPA Act, 1986 and its amendments, guidelines by MoEF&CC/SEIAA and other regulatory bodies. This policy will be displayed in the quarry.	-
7	The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.	Agreed. It will be complied as mentioned in the Point No.4	-
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.	Agreed. It will be complied as mentioned in the Point No.4.	-
Agriculture & Agro-Biodiversity			
9	Impact on surrounding agricultural fields around the proposed mining Area.	There are no Agriculture, forest area and traditional practices within the project area. However, there are some agricultural land around the project site. It may be affected due to the quarry operation as such dust particles sedimentation in the agricultural land. It will be controlled at the source level by proper dust suppression as such wet drilling, controlled blasting and water sprinkling on the project roads and project surrounding roads. As per Air	-

		Quality Modelling, the impact of the air quality limited to 400m radius. So, there is no impact for the Agriculture, Forestry & Traditional practices located within 10km radius.	
10	Impact on soil flora & vegetation around the project site.	The chemical and physical characteristics of the soil is given in Table 3.11 of Chapter 3. The anticipated impact and its mitigation measures for soil environment and biological environment are detailed in section 4.2.2 & 4.2.4 of Chapter 4 respectively.	128, 158 & 162
11	Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.	There is no standing trees or vegetation within the mine lease area.	-
12	The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.	The ecological details have been provided in Section 3.3.6 under Chapter 3 and measures have been provided in Section 4.2.4 under Chapter 4.	129 & 162
13	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	All the essential environmental protective measures will be followed by the proponent to manage the surrounding environment and restore the ecosystem, as discussed in Chapter 4.	153
14	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	The impact of project on the land environment has been discussed in Section 4.2.1 under Chapter 4.	155
Forests			
15	The project proponent shall detailed study on impact of mining on Reserve Forests free ranging wildlife.	The following Reserve Forest are located within 10 km radius. •Naranamangalam R.F-3.01Km (NW) •Nedungur R.F-4.2Km (SW)	162

		•Maniyankurichi R.F -4.7Km (SW) •Velur R.F- 5.68Km (NW) •Marmareddipalayam-7.5Km (SW) There is no reserve Forest area within 1 km radius. The anticipated impact on ecological environment is given in section 4.2.4 of Chapter 4.	
16	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	• Naranamangalam R.F-3.01Km (NW) • Nedungur R.F-4.2Km (SW) • Maniyankurichi R.F -4.7Km (SW) • Velur R.F- 5.68Km (NW) • Marmareddipalayam-7.5Km (SW) The anticipated impact on ecological environment is given in section 4.2.4 of Chapter 4.	162
17	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.	Not Applicable.	-
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, environmentally sensitive areas Corridors and Wildlife pathways near project site. Karaivetti Birds Sanctuary -25.2 km (SE)	-
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	The hydrogeological study from a reputed institute is in progress and it will incorporated in the Final EIA report.	

	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.	There is no waste generation (OB) in this quarry has been envisaged. However, there may be erosion due to rainy season and that is limited within quarry area. The control measures are explained in Chapter 4.	
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.	Complied. The study details are incorporated in Chapter 3. Anticipated impacts and its mitigation measures are detailed 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.	There is no wastewater generation from this Quarry, so this is not applicable.	-
23	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	Fragmentation impact on environment may be due to drilling and blasting. The anticipated impacts and mitigation measures are discussed 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 Flora and Fauna study covering 10 km radius are detailed in section 3.3.6 of chapter 3. The impacts anticipated with respect to the environment of the project area is very negligible and it will be minimized within the project area. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area.	-
25	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil	The impact of mining on soil environment has been discussed in Section 4.2.2 under Chapter 4.	153

	physical, chemical components and microbial components.		
26	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The anticipated impact and its mitigation measures for Water Environment are detailed in section 4.2.3 of Chapter 4.	159
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.	The proposed quarry operation is Opencast Mechanized operation with drilling, blasting, excavation, loading and transportation. So, the effect of Hydrothermal/Geothermal is not envisaged. This is a simple mining operation, so bio-geochemical processes are not envisaged. Due to mining operation, there may be minimum impact to the nearby water bodies due to dust sedimentation. It will be controlled by wet drilling, water sprinkling and plantation.	-
Energy			
28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.	The measures taken to control noise, air, water, and dust have been given under Chapter 4.	153
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 and the measures to mitigate carbon emission have been discussed in Section 4.2.4 under Chapter. Only the best equipment will be used, and it will be properly and regularly maintained. Regular vehicular emission tests will be conducted on the transport vehicles to ensure minimal carbon emissions. To further reduce carbon emissions, a good greenbelt plan has been planned.	168
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.		168
31	Impact of mining on pollution leading to GHGs emissions and the		168

	impact of the same on the local livelihood.		
Mine Closure Plan			
32	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.	Complied. Mine Closure Plan has been incorporated in the approved Mining Plan and the same is incorporated in the Chapter 2.	87
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.	Complied. The details are described in Chapter 10.	210
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.	Total EMP Cost for 10 years is 34.23 lakhs i.e., Rs.9.28 Lakhs of Capital + Recurring cost Rs. 24.95 lakhs for Ten years, which is including the cost of Rs. 0.46 Lakhs (capital) and Rs. 0.09 (Recurring) for Greenbelt development.	216
Risk Assessment			
35	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	The risk assessment and management plan for this project has been provided in Section 7.2 under Chapter 7.	194
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.	Disaster Management plan are detailed in section 7.3, Chapter 7.	198
Others			
37	The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools,	There are no historical places, schools, cemeteries, temples, bird sanctuaries, and wildlife sanctuaries within 300 meters	-

	Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.	of the proposed project area. In this regard, the project proponent has received an official letter from the Village Administrative Officer, The letter copy enclosed as Annexure – 4.	
38	As per the MoEF& CC office memorandum F.N0.22-65/2017-1A.11I dated: 30.09.2020 and20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.	The concerns raised during the public consultation and all the activities proposed will be updated in the 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.	Complied. The PP has framed detail solid waste management system for the project are and the same will be executed by proper awareness and sign boards. The sign boards will be in two language i.e., Vernacular language (Tamil) and common language (English). The plastic waste generation is very negligible and it will be collected from the source level in specific dustbin and disposed through the municipal bins.	-
SEIAA Specific Condition			
4.1	The authority noted that the subject was placed in the 609th SEAC-I meeting held on 26.08.2025. After detailed discussions, the Authority accepts the recommendation of SEAC-I and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 3,56,042 m3 of Rough Stone up to the depth of 81m (61m Above Ground Level And 20m Below Ground Level) as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment	Agreed	

<table>
<tr><td></td><td>Management Plan subject to the conditions as recommended by SEAC-I & normal conditions & the SEIAA Standard conditions.& the conditions mentioned below.</td><td></td><td></td></tr>
<tr><td colspan="4">Standard Terms of Reference for (Mining of minerals)</td></tr>
<tr><td>1.1</td><td>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</td><td>The applied area was previously operated by some other lessee. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below.
<table><tr><th>Pit No</th><th>Length in (m)</th><th>Width in (m)</th><th>Depth in (m)</th></tr><tr><td>Pit I</td><td>88</td><td>48</td><td>5m AGL</td></tr></table></td><td>-</td></tr>
<tr><td>1.2</td><td>A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given</td><td>It is Government land the applicant has obtained tender from the Government</td><td>-</td></tr>
<tr><td>1.3</td><td>All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee</td><td>Noted & agreed. All documents including approved mine plan, EIA and Public Hearing are compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and is in the name of the lessee.</td><td>-</td></tr>
<tr><td>1.4</td><td>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)</td><td>Project coordinates superimposed in satellite imagery and given as Figure No – 2.2 in Chapter – 3.
The geology and geomorphology map are provided in Figure No.3.23, 3.24 Chapter 3.

The Soil map is provided under Figure No. 3.25, Chapter-3.
The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 & Figure 3.5 in Chapter – 3.</td><td>66

98 & 104

150 & 151</td></tr>
</table>

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	The following map in 1:50,000 Scale: Geology map of the project area covering 10km radius – Figure No. 3.23. Geomorphology Map of the Study Area covering 10 km radius – Figure No. 3.24. Drainage map – 3.22	150
1.6	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	a.) Precise Area Communication: The Project Proponent has obtained Precise area communication letter received from the Assistant Director, Department of Geology and Mining, Perambalur, vide Rc.No.124/G&M/2025, dated 02.05.2025. The letter copy enclosed as Annexure – 1. b.) Mining Plan approval: The project proponent has prepared a Mining Plan under rule 19 (1), 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No. 124/G&M/2025, Dated: 03.06.2025. The approval letter along with approved plan is enclosed as Annexure – 2.	-
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	Environmental policy for the cluster will be framed by the cluster management committee and the policy will be in accordance with EPA Act, 1986 and its amendments, guidelines by MoEF&CC/SEIAA and other regulatory bodies. This policy will be displayed in the quarry.	-

	system of reporting of noncompliances / 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	Risks are identified and the management plan is given in Chapter 7.	194
1.9	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.	Noted & Agreed The study area considered for this study is 10 km radius and all data contained in the EIA report such as waste generation etc., is for the Life of the Mine / lease period.	-
1.10	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given	The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.3.7 of Chapter-3. The land use pattern at present and at the end of the quarrying period has been provided in Table 2.4, Chapter-2. The Conceptual plan of mine lease area is shown in Figure No- 2.11.	136
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	The entire material quarried out will be sold. No waste generation from this quarrying operation.	-
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	There is no Forest Land involved in the proposed project area. The proposed project area is a Government land, applicant has obtained tender from government. Approved Mining Plan is enclosed in Annexure – 2.	-

	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		
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	Not Applicable. The proposed project area does not involve any Forest Land.	-
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	Not Applicable. The project doesn't attract Recognition of Forest Rights Act, 2006.	-
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given	The following Reserve Forest are located within 10 km radius. • Naranamangalam R.F-3.01Km (NW) • Nedungur R.F-4.2Km (SW) • Maniyankurichi R.F - 4.7Km (SW) • Velur R.F- 5.68Km (NW) • Marmareddipalayam-7.5Km (SW) There is no reserve Forest area within 1 km radius.	-

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	The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc.	-
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 Wildlifeand copy furnished.	Not Applicable. There are No National Parks, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves within 10 km Radius from the periphery of the project area.	-
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	Flora and fauna composition in the core and buffer zone of the project has been studied through primary field surveys. The details are furnished in Chapter 3.	129

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	Not Applicable	-
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)	Not Applicable	-
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	Not applicable. No habitation within 300 meter of the radius.	

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. Sitespecific 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.	Baseline Data were collected for One Season (March 2025 to May 2025) as per CPCB Notification and MoEF & CC Guidelines and Detailed in Chapter -. 3.	96
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.	Air Quality Modelling for prediction of incremental GLC's of pollutant was carried out using AERMOD view and Detailed in Section 4.3.	173
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	The total water requirement for the project is 3.0 KLD. The required water will be procured from outside agencies initially and later rainwater harvested in the mine pit shall be used other than drinking purpose. Water	160

		Balance diagram is presented in Figure No – 4.1.	
1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided	Not Applicable Water for dust suppression, greenbelt development and domestic use will be sourced from accumulated rainwater/seepage water in mine pits and purchased from local water vendors through water tankers on daily requirement basis.	-
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	Rain water will be diverted into working area by constructing drains to store and use for dust suppression and greenbelt development. Details are presented in section 4.2.3 The total water requirement for the project will be 3.0 KLD comprising Drinking and domestic 1.0 KLD, Dust suppression 1.0 KLD, Greenbelt 1.0 KLD. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose. The water balance diagram for the same is shown in Figure No 4.1.	160
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	Impact Studies and Mitigation Measures of Water Environment including Surface Water and Ground Water are discussed in Section 4.2.3 of Chapter 4.	159

<table>
<tr><td>1.28</td><td>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</td><td>The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 81m (61m AGL& 20m BGL) and water table is found at a depth of 67 m BGL.</td><td>-</td></tr>
<tr><td>1.29</td><td>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</td><td>Not applicable.

There is no stream, seasonal or otherwise, passing through the lease area.</td><td>-</td></tr>
<tr><td>1.30</td><td>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</td><td><table><tr><td>Site Elevation above MSL</td><td>185 m from MSL</td></tr><tr><td>Ultimate Depth</td><td>81m (61m AGL& 20m BGL)</td></tr><tr><td>Ground water</td><td>64 - 67 m BGL.</td></tr></table></td><td>-</td></tr>
<tr><td>1.31</td><td>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</td><td>Greenbelt Development Plan & Recommended Species proposed for Greenbelt Development are detailed in Section 4.2.4.
0.46.10 hectares (10 m safety zone) of land are allotted for greenbelt development.</td><td>169</td></tr>
</table>

	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	The traffic density study was carried out and the same is given in section 2.10.6 of Chapter 2.	92
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report	Temporary Infrastructure & other facilities will be provided to the Mine Workers after the grant of quarry lease and the same has been discussed in Section 2.10 of Chapter 2.	94
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	At the conceptual stage the quarried-out land will be fenced and lower benches will be allowed to collect rain water to act as a temporary reservoir and Greenbelt development will be carried out on the top bench, unutilized areas and haul roads. Mine closure plan is detailed in Section 2.9 of Chapter 2.	87
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	Details of occupational health and safety aspects are given under the Section 4.5.4 & Section 10.4.	186

	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	No major impact on public health will be there since the villages are located more than 1km from the lease area.	-
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	This project provides employment to 33 people directly & indirectly. Local people will be hired for unskilled labour. Through CSR, nearby schools, villages will be benefitted. For CER, INR Rs.3.00 Lakhs is allocated. Based on the demand of the people during public hearing, further funds will be allocated, if necessary.	-
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	Environmental Management plan details are given in Chapter 10.	210
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	During public hearing process, the opinions and demands of the people will be noted. The replies and commitment made by the proponent along with time bound action plan wherever applicable will be provided in Final EIA/EMP report.	-
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	There is no litigation pending against the project.	-
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	Project Cost is Rs. 952.23 Lakhs (including EMP & CER cost) CER Cost is Rs.3.00 lakhs Total EMP Cost for 10 years is 34.23 lakhs i.e., Rs.9.28 Lakhs	216

		of Capital + Recurring cost Rs. 24.95 lakhs for Ten years.	
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report	The disaster and its management plan is given in Chapter-7.	198
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	This project will contribute financially through payment of taxes like royalty, GST, etc. The project will also contribute via CSR. The demands of people during public hearing will also be considered by the project proponent. This project provides employment to 33 people directly. Local people will be hired for unskilled labour. Through CSR, nearby schools, hospitals will be benefitted. For CSR, INR Rs.3.00 Lakhs has been allocated.	-
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	Yes, Complied.	

	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 29th August, 2017, 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. a. The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area, b. geological maps and sections and 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

Environmental Impact Assessment (EIA) is the management tool to ensure the sustainable development and it is a process, used to identify the environmental, social and economic impacts of a project prior to decision making. It is a decision-making tool, which guides the decision makers in taking appropriate decisions for any project.

EIA systematically examines both beneficial and adverse consequences of the project and ensures that these impacts are taken into account during the project designing. It also reduces conflicts by promoting community participation, information, decision makers, and helps in developing the base for environmentally sound project.

Rough Stone are the major requirements for construction industry. This EIA report is prepared by considering Cumulative load of all proposed & existing quarries located within 500 m radius of the project area.

Thiru.L.Hariharan proposes to operate Rough Stone Quarry over an extent of 1.40.60 Ha Government Poramboke Land in S.F. No. 10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State and ToR obtained vide ToR Identification No. TO25B0108TN5955548N, Dated: 25.09.2025.

The applied area was previously operated by some other lessee. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below.

Pit No	Length in (m)	Width in (m)	Depth in (m)
Pit I	88	48	5m AGL

This proposed project is categorized under category "B1" Activity 1(a) (mining lease area in cluster situation). This cluster includes one existing quarry and ten proposed quarries including this proposal. The existing and proposed quarries located within 500m radius are detailed in below Table.

Table 1.1 – Details of Quarries within 500m Radius

S.No	Name of the Quarry Owner	S.F. Nos & Village	Lease Period	Area in Ha
a. Existing Quarry:				
1.	M.Baskaran	Alathur, Padalur(E) 1/7F(P), 1/7G(P), 1/3(P) etc.	23.08.2024 to 22.08.2034	1.33.0
b. Abandoned Quarry / Expired Quarry				
1.	M.Baskaran,	Alathur/ Padalur(E) 4(1)(P),4(2)(P),7(3)(P)	24.01.2018 to 23.01.2023	2.00.0
2.	K.Mathiyalagan,	Alathur/ Padalur(E) 10/1, Block 18	23.05.2007to 22.05.2017	1.00.0
3.	B.Senthilkumar	Alathur/ Padalur(E) 10/1 (Part)	12.04.2006 to 11.04.2016	1.00.0
4.	M.Ravi	Alathur/ Padalur(E) 10/1, Block 20	11.05.2007 to 10.05.2017	1.00.0
5.	V.Panneerselvam	Alathur/ Padalur(E) 10/1, Block 22	31.05.2011 to 30.05.2021	1.00.0
6.	R.Sureshbabu	Alathur/ Padalur(E) 10/1, Block 17	23.05.2007 to 22.05.2017	1.00.0
7.	A.T.Natarajan	Alathur/ Irur, 713/5 etc	28.11.2018 to 27.11.2023	1.34.0
8.	S.N.Vinoba	Alathur/ Padalur(E) 10/1 Block 5	26.04.2007 to 25.04.2012	1.00.0
9.	D.Raja	Alathur/ Padalur(E) 10/1 Block 6	11.05.2007 to 10.05.2012	1.00.0
c. Present Proposed Quarry				
1.	Thiru.Hariharan. L	Alathur/ Padalur (East) 10/1 (Block 2)	Instant proposed	1.40.6
2.	Thiru. R.Rajkumr	Alathur/ Padalur (East) 10/1 (Block 1)	Presently Proposed	1.50.0
3.	Thiru.P.Velmurugan	Alathur/ Padalur (East) 10/1 (Block 3)	Presently Proposed	1.40.0
4.	M/s. Rajamalai Metals	Alathur/ Padalur (East) 10/1 (Block 4)	Presently Proposed	1.40.0
5.	Thiru.M.Thangaraj	Alathur/ Padalur (East) 10/1 (Block 5)	Presently Proposed	2.10.0
6.	M/s.SR Mines & Minerals	Alathur/ Padalur (East) 10/1 (Block 6)	Presently Proposed	2.20.0
7.	M/s.Mars Mines	Alathur/ Padalur (East) 10/1 (Block 7)	Presently Proposed	1.30.0

8.	Thiru.R.Vinoth	Alathur/ Padalur (East) 10/1 (Block 8)	Presently Proposed	1.20.0
9.	M/s.Anjancyaa Minerals	Alathur/ Padalur (East) 10/1 (Block 9)	Presently Proposed	1.20.0
10.	Thiru.P.Velmurugan	Alathur/ Padalur (East) 10/1 (Block 13)	Presently Proposed	1.00.0
Total Area of Cluster		**16.03.60 Ha**		

Cluster area calculated as per MoEF & CC Notification S.O. 2269(E) Dated 1st July 2016. Satellite image of Quarries in Cluster is shown in Fig 1.1.

As per MoEF&CC OM: F.No. L-11011/175/2018-IA-II(M), dated 12.12.2018, the EIA/EMP report has to be prepared for the cluster area based on ToR recommended by SEIAA. Therefore, the applicant applied for ToR through Parivesh website vide online proposal no. SIA/TN/MIN/545200/2025, Dated: 21/07/2025. The ToR proposal was placed in 609th SEAC meeting, dt 26.08.2025 and 888th SEIAA meeting, dated 17.09.2025. Then ToR has been issued by the SEIAA vide ToR Identification No. TO25B0108TN5955548N, dated: 25.09.2025 to prepare the draft EIA report as per the recommended ToR for conducting public hearing and obtaining Environmental Clearance from the SEIAA.

Figure.1.1 Satellite Image showing cluster quarries

1.2 IDENTIFICATION OF PROJECT AND PROJECT PROPONENT

1.2.1 IDENTIFICATION OF PROJECT

Table -1.2 Project Identification

Name of the Project	Rough Stone Quarry of Thiru.L.Hariharan
S.F No.	10/1(Block-2)
Location of the Project	Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.
Extent	1.40.60 Ha.
Type of Land	Government Poramboke Land

1.2.2 IDENTIFICATION OF PROJECT PROPONENT

Table -1.3- Details of Project Proponent

Name of the Project Proponent	Thiru.L.Hariharan
Communication address	No.9, Dhanalakshmi Street, Postal Nagar, Nemilicheri, Chrompet, Kancheepuram District - 600 044.
e-mail Address	-
Cell number	73587 71411

1.3 BRIEF DESCRIPTION OF THE PROJECT

1.3.1 NATURE AND SIZE OF THE PROJECT

The quarrying operation is proposed to be carried out by Opencast Mechanized Mining Method by jack hammer drilling, slurry blasting by forming 5.0 m bench height and 5.0 m bench width. Excavator and tippers are proposed for Loading and transportation.

Table – 1.4 Brief Descriptions of the Project

Name of the Quarry	Rough Stone Quarry of Thiru.L. Hariharan
Toposheet No	58 I/16
Latitude	11°06’57.13” N to 11°07’00.71” N
Longitude	78°50’26.02” E to 78°50’32.47” E
The altitude of the area	185m (MSL)
Proposed Depth of Mining	81m (61m AGL& 20m BGL)
Geological Resources	9,42,372 m^3
Mineable Reserves	3,56,042 m^3
Proposed Production (10 Years)	Total Rough Stone: 3,56,042 m^3 (10 YEARS) First Five Years – 1,78,472 m^3 Second Five Years – 1,77,570 m^3
Ultimate pit Dimension	165 m (L) X 56 m (W) X 81m D (61m AGL& 20m BGL)
Water Level in the area	67 m BGL
Method of Mining	Opencast, Semi-mechanized Mining with a bench height of 5m and bench width of 5m proposed.
Topography	The area applied for quarry lease is exhibits hilly terrain covered by covered by Topsoil formation. The massive Charnockite formation is noticed below 1m (Avg) Topsoil and sloping towards west side of the

<table>
<tr><td></td><td colspan="2">area, the altitude of the area is above 185m (maximum) from MSL.</td></tr>
<tr><td>Machinery Proposed</td><td>Jack Hammer</td><td>4 Nos</td></tr>
<tr><td></td><td>Compressor</td><td>1 Nos</td></tr>
<tr><td></td><td>Excavator with bucket and rock breaker</td><td>2 Nos</td></tr>
<tr><td></td><td>Tipper (10/20 T)</td><td>4 Nos</td></tr>
<tr><td>Environmental Setting within 500m Radius</td><td colspan="2">There is Tank situated on southern side and is 320m away from the area.</td></tr>
<tr><td>Details of Habitation</td><td colspan="2"><table>
<tr><th>S. No</th><th>Name of the Village</th><th>Approximate distance & Direction from lease applied area</th><th>Approximate population</th></tr>
<tr><td>1.</td><td>Pudhukurichi</td><td>3.0km - NE</td><td>500</td></tr>
<tr><td>2.</td><td>Alathur</td><td>1.3km – NW</td><td>1500</td></tr>
<tr><td>3.</td><td>Padalur</td><td>1.2Km-SE</td><td>400</td></tr>
<tr><td>4.</td><td>Padalur West</td><td>2.5km-SW</td><td>2000</td></tr>
</table></td></tr>
<tr><td>Proposed Manpower Development</td><td colspan="2">33 Nos</td></tr>
<tr><td>Water Requirement</td><td colspan="2">3.0 KLD</td></tr>
<tr><td>Greenbelt Development</td><td colspan="2">The safety zone of 0.46.10 Ha will be developed with about 460 Nos. of plantation.</td></tr>
<tr><td>Fuel Requirement</td><td colspan="2">2,84,834 liters of HSD (Entire Project Life)</td></tr>
<tr><td>Project Cost</td><td colspan="2">Rs. 952.23 Lakhs (Including operational + Fixed Asset + EMP cost + CER cost).</td></tr>
<tr><td>EMP Cost</td><td colspan="2">Total EMP Cost for 10 years is 34.23 lakhs i.e., Rs.9.28 Lakhs of Capital + Recurring cost Rs. 24.95 lakhs for Ten years</td></tr>
<tr><td>CER Cost</td><td colspan="2">Rs.3.00 lakhs</td></tr>
<tr><td>Applicability of CRZ Clearance</td><td colspan="2">The applied area was previously operated by some other lessee. CCR is not applicable.</td></tr>
</table>

1.3.2 NATURE OF THE PROJECT

Sector	1(a) Non-Coal Mining
Type	Already operated by other lessee before 2015

Category	B1 (Cluster Situation)
Mineral	Minor mineral of Rough Stone

LOCATION OF PROJECT

The proposed Quarry lease area is situated at S. F. No. 10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. The area lies in the north latitude of 11°06'57.13" N to 11°07'00.71" N and eastern longitude of 78°50'26.02" E to 78°50'32.47" E. Location of the proposed project is shown in Figure 2.1 and the satellite imagery of the project site is shown in Fig 2.2.

1.4 IMPORTANCE OF THE PROJECT TO THE REGION

Rough stone will continue to be a staple in construction, decoration and industry for years to come. As recycling picks up, mining and quarries may slow down, but we will always need rough stone in general construction and industry.

1.5 REGULATORY COMPLIANCES

Understanding of the applicable environmental legislative framework is crucial for understanding the scope of the EIA study. With respect to prevention and control of environmental pollution, the following Acts and Rules of MoEF&CC (Ministry of Environment Forests and Climate Change), GoI (Government of India) govern the proposed project. The applicable environmental legislation for the proposed mining project is detailed below,

- Environment protection Act, 1986
- EIA Notification, 2006 & Subsequent amendments
- Water Pollution (Prevention & Control) Act, 1974
- Air Pollution (Prevention & Control) Act, 1981
- Noise Pollution (Regulation 7 Control) Rules, 2000
- Mines Act,1952
- Tamil Nadu Minor Mineral Concession Rules, 1959
- Mines and Minerals (development and regulation) Act,1957
- Minor Minerals Conservation and Development Amendment Rules 2018
- State Minor Mineral Concession Rules (GMMCR), 2017
- Explosive Act ,1884

- Explosive Rules,2008
- Hazardous and other Wastes (management and Transboundary Movement) Rules, 2016
- Batteries (Management and Handling) Rules 2010
- Solid Waste Management Rule 2016

1.5.1PRESENT LEGAL STATUS

Table 1.5 – Present Legal Status

Description	Issuing Authority	Status	Letter number	Date	Reference
Precise Area Communication	Assistant Director, Department of Geology and Mining, Perambalur	Received	Rc.No.124/G&M/2025	02.05.2025	Annexure - 2
Mine Plan Approval Letter	Assistant Director, Department of Geology and Mining, Perambalur	Approved	Rc.No.124/G&M/2025	03.06.2025	Annexure-3
500m radius Cluster Letter	Assistant Director, Department of Geology and Mining, Perambalur	Obtained	Rc.No.124/G&M/2025	03.06.2025	Annexure-4
VAO NOC for features within300m radius	VAO, Padalur (East) Village	obtained	-	17.06.2025	Annexure-5

1.5.2 SCREENING

As per the Environmental Impact Assessment (EIA) Notification dated 14th September 2006 and its subsequent amendments the proposed quarry mining project falls under 'Category B1(Cluster Situation)', which requires Environmental Clearance from the State Environmental Impact Assessment Authority (SEIAA). The project proponent has appointed M/s. Global Mining Solutions, Salem, who are accredited by the National Accreditation Board for Education and Training (NABET), Quality Council of India (QCI), New Delhi, under the registration number NABET/EIA/23-26/SA 0241. Their role is to carry out an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) study in compliance with the Ministry of Environment, Forest and Climate Change (MoEF & CC) requirements.

1.5.3 SCOPING

The proposal was placed in the 609th meeting of SEAC on 26.08.2025. Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Terms of Reference (ToR) to SEIAA and SEIAA recommended ToR in its 888th meeting dated 17.09.2025.

1.5.4 SCOPE OF THE STUDY

In line with the prescribed Terms of Reference (TOR), the area comprising 10 km radius around the proposed mine lease boundary is considered as the study area. The EIA/EMP report has been prepared following the generic structure specified in the EIA Notification 2006. The detailed studies have been conducted as per prescribed Standard TOR issued by SEIAA, TamilNadu vide ToR Identification No. TO25B0108TN5955548N, dated: 25.09.2025. The point wise compliance for the ToR has been incorporated in this EIA/EMP report.

The main scope of the EIA study is to quantify the cumulative impact in the study area due to cluster quarries and formulate the effective mitigation measures for this applied project area. A detailed account of the emission sources, emissions control equipment, background Air quality levels, Meteorological measurements, Dispersion model and all other aspects of pollution like effluent discharge, Dust generation etc.,

have been discussed in this report. The baseline monitoring study has been carried out during the Period of March 2025 – May 2025 for various environmental components so as to assess the anticipated impacts due the cluster quarry projects on the environment and suggest suitable mitigation measures for likely adverse impacts due to this proposed project.

The scope of study broadly covered as below,

- Literature review and collection of secondary data relevant to the study area.
- Establish the baseline environmental aspects in and around the proposed project covering 10 km radius.
- Identify various existing pollution loads due to various mining activities.
- Predict incremental levels of pollutants in the study area due to the proposed operations.
- Establishing and analyzing demographic profile including sex ratio, literacy rate, SC/ST, workers classification, land use categorization, etc in the project influenced area
- Evaluate the predicted impacts on various environmental attributes in the study area by using scientifically developed and widely accepted environmental impact assessment methodologies.
- Prepare an Environment Management Plan (EMP) outlining the measures for improving the environmental quality and identify critical environmental attributes that are required to be monitored in the post-project scenario.
- To assess the impacts on human settlement in the project influence area Socio-Economic Assessment
- Cumulative impact assessment for the quarries in cluster.

1.6 NEED AND JUSTIFICATION OF THE PROJECT

- Proposed mining project will fulfill the local market requirement for real estate and infrastructure industry. This project will also provide employment to local people helping them earn livelihood.
- Employment generated consequent to the mining activity in the project will be benefit local and rural population and will have multiplier effects on local economy.
- The Project will give tremendous boosts to the local and regional economy benefiting the population.
- The social benefits arising out of this proposal can be expressed in terms of increase in the standards of living of local population, educational opportunities, training and development of skills etc.

1.7 STRUCTURE OF THE REPORT

As per the new guidelines of the MoEF & CC the report has been divided into the following chapters and presented as follows:

1. Introduction

This chapter describes the profile of the project proponent, name and contact address with email, project consultants, the purpose of the project, brief description of the project, applicable environmental regulations, objectives and methodology for EIA studies etc.

2. Project Description

This chapter gives a brief description of the project such as the type of project, need for the project, its location, approachability, layout, etc of the proposed project, the project implementation schedule, estimated cost of development etc.

3. Description of the Environment

This chapter presents details of the baseline environmental status for microclimate, air quality, noise, water quality (surface and ground), soil quality, flora, fauna and socioeconomic status etc.

4. Anticipated Environmental Impacts & Mitigation Measures

This chapter discusses the possible sources of pollution and environmental impacts due to the project during operation phases and suggests the mitigation measures.

5. Analysis of Alternatives (Site and Technology)

This chapter discusses the analysis of the various alternatives for the technology as well as the site and gives the selection of the most feasible alternative.

6. Environmental Monitoring Program

This chapter discusses the details about the environmental monitoring program during operation phases. The technical aspects of monitoring the effectiveness of mitigation measures are covered in this chapter.

7. Additional Studies

This chapter covers information about the additional studies conducted for this project such as the Risk Analysis, Emergency Response and Disaster Management Plan.

8. Project Benefits

This chapter presents the benefits from this project

9. Cost Benefit Analysis

Environmental Cost Benefit Analysis has not been recommended at Scoping Stage – thus no analysis carried out separately in this EIA/EMP Report.

10. Environmental Management Plan

This chapter deals with the EM for the proposed sand mining projects and indicates the measures proposed to minimize the likely impacts on the environment during and operation phases and budgetary allocation for the same.

11. Summary and Conclusion

This chapter deals with the overall justification for implementation of the project and explanation of how, adverse effects have been mitigated.

12. Disclosure of Consultant

This chapter deals with the details of consultants engaged and the NABET accreditation details of environmental consultants.

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CHAPTER 2

PROJECT DESCRIPTION

2.1 TYPE OF THE PROJECT

The proposed activity is the extraction of Rough Stone quarry by open cast mechanized mining method.

This project proposed to produce 3,56,042 m3 of rough stone for 10 years (First Five Years – 1,78,472 m^3 & Second Five Years – 1,77,570 m^3) with ultimate depth up to 81m (61m AGL& 20m BGL).

2.2 NEED FOR THE PROJECT

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.

2.3 LOCATION OF THE PROJECT

This is a Rough Stone Quarry located in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. The area lies in the north latitude of 11°06’57.13” N to 11°07’00.71” N and eastern longitude of 78°50’26.02” E to 78°50’32.47” E and toposheet number 58 I/16. Location of the proposed project is shown in Figure 2.1 the satellite imagery of the project site is shown in Figure 2.2.

This proposed project area is classified as Government Poramboke Land & does not fall within 10 km radius of any Eco – sensitive zone, Wild life Sanctuary, National Park, Tiger Reserve, Elephant Corridor and Biosphere Reserves. The M.L area details are presented in below Table.

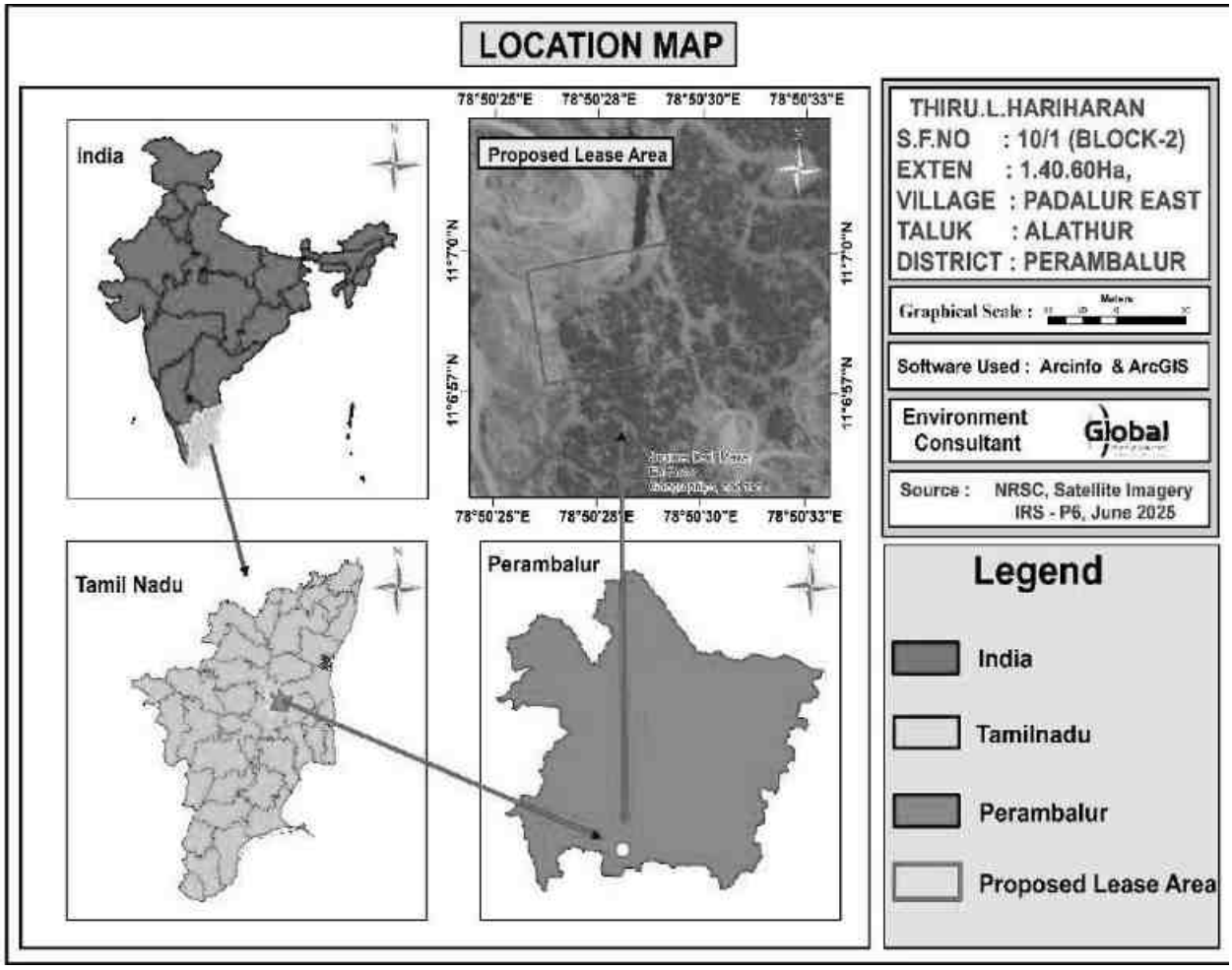


Figure 2.1 Location Map

Table 2.1 Boundary Coordinates of the Project Site

Corners	Co- ordinates	
	Latitude	Longitude
1	11° 06' 59.57"N	78° 50' 26.02"E
2	11° 07' 00.71"N	78° 50' 32.02"E
3	11°06' 58.28" N	78° 50' 32.47"E
4	11° 06' 57.13"N	78° 50' 26.51"E

Figure 2.2 Google Image of the project site with Boundary Coordinates

Table 2.2 Mine Lease Area and its Ownership

Location	S.F. No	Area in Ha	Remarks
Padalur (East) Village, Alathur Taluk, Perambalur District	10/1(Block-2)	1.40.60	It is Government land the applicant has obtained tender from the Government.

Table 2.3 Site Connectivity

S.No	Description	Details	Distance & Direction
1	Village	Padalur	1.3Km (SE)
2	Highway	(NH-38) Viluppuram – Trichy (SH-142) Perambalur – Thuraiyur	0.8 km (NW) 12.1 Km (NW)
3	Railway Station	Kallakkudi Palanganatham	19.60 km(SE)
4	Airport	Tirchy Airport	45.00 Km (SW)

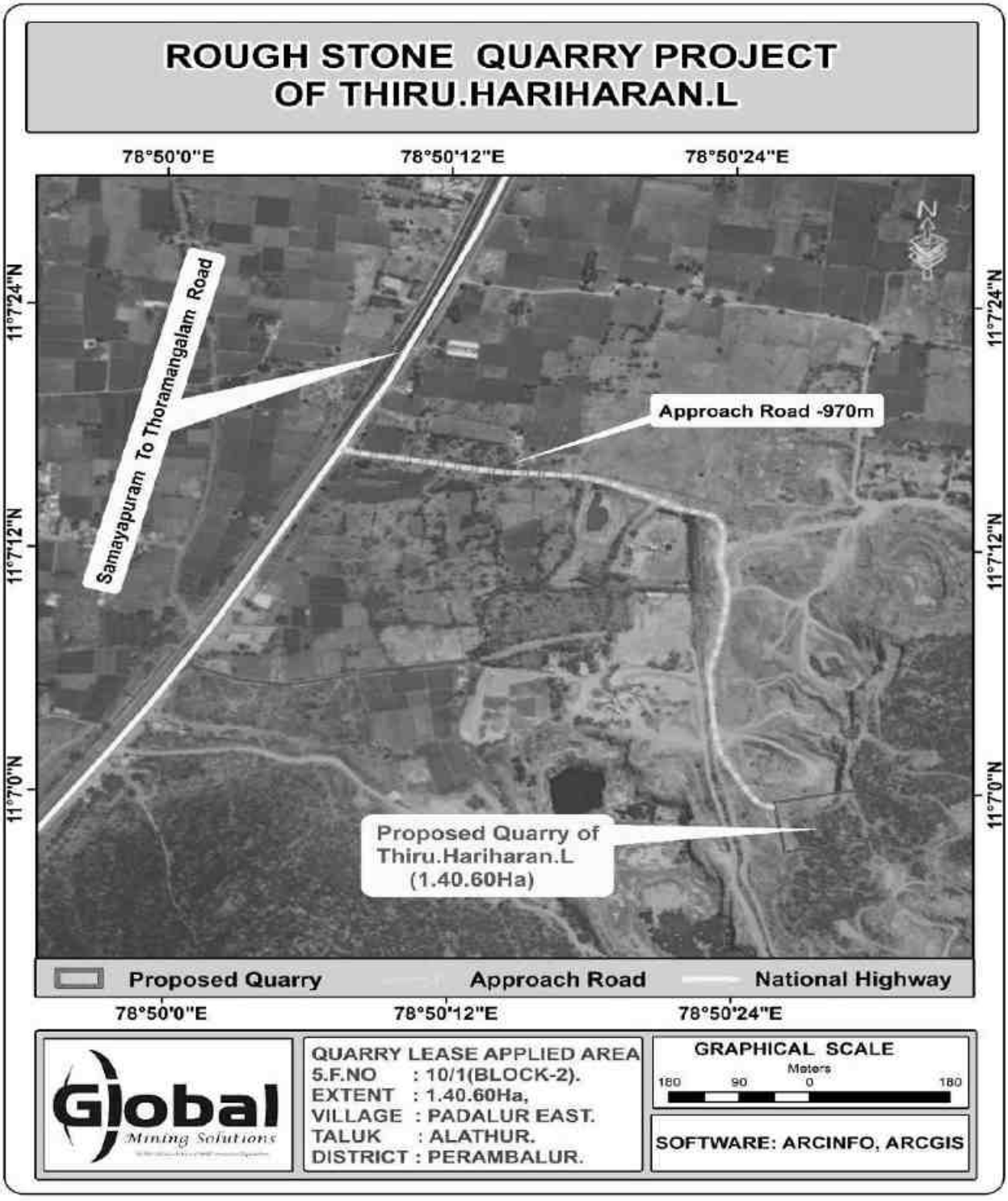


Figure 2.3 Site Connectivity Map

Table 2.4 Salient features of the Project

S. No.	Particulars	Details
1.	Proponent Name	Thiru.L. Hariharan
2.	Proposed project	Rough Stone Quarry of Thiru.L. Hariharan
3.	Extent	1.40.60 Ha and the cluster area within 500 m radius including this proposed mine is 16.03.60 Ha > 5 Ha
4.	Location	S.F.No. 10/1(Block-2) in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.
5.	Co-ordinates of the project site	Latitude: 11°06'57.13" N to 11°07'00.71" N Longitude: 78°50'26.02" E to 78°50'32.47" E
6.	Topography	Hilly topography
7.	Site Elevation above MSL	185 m from MSL
8.	Topo Sheet No.	58 I/16
9.	Minerals of Mine	Rough Stone
10.	Proposed production in m^3	3,56,042 m^3 of rough stone for 10years
11.	Ultimate Depth of mining	81m (61m AGL& 20m BGL)
12.	Method of Mining	Opencast, Semi-mechanized Mining with a bench height of 5m and bench width of 5m proposed.
13.	Drilling/Blasting	Drilling and controlled Blasting is proposed
14.	No. of Working days	300 Days
15.	Water requirement & Source	3.0 kLD and will be sourced from local vendors
16.	Manpower	33 Nos.
17.	Project Cost	Rs. 952.23 Lakhs
18.	Mining Plan Approval	Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No.124/G&M/2025, Dated: 03.06.2025.
19.	Safety Zone	0.46.10 Ha will be maintained as safety zone and 460 tree saplings will be planted in this area
20.	Ground water level	67 m in summer and 64 m in rainy seasons
21.	Distance of Stone Crusher	Adjacent
22.	Previous History & CCR	The applied area was previously operated by some ot lessee. CCR is not applicable.

Table 2.5 Environmental Settings of the project site

S. No.	Particulars	Details
1.	Nearest Highway	The National Highway (NH-38) Viluppuram – Trichy is about 0.8 km on northwest side of the area. The State Highway (SH-142) Perambalur – Thuraiyur is about 12.1 Km on northwest side of the area.
2.	Interstate Boundary	Not Applicable
3.	Nearest Railway Station	Kallakkudi Palanganatham – 19.60 km – (SE)
4.	Nearest Airport	Tiruchirappalli International Airport – 45.00 Km (SW)
5.	Nearest Village	Irur – 875m(NW)
6.	Water bodies	There is Tank situated on southern side and is 320m away from the area. Tank – 620m (SE), Maruthadi Eri-1.35Km(SW), Therani Big Lake-4.16Km(SE), Nanthai River – 4.3 km (S)
7.	Reserved Forest	Naranamangalam R.F-3.01Km(NW), Nedungur R.F-4.2Km(SW), Maniyankurichi R.F -4.7Km(SW) Velur R.F- 5.68Km(NW), Marmareddipalayam-7.5Km(S
8.	Eco Sensitive Zone and Wildlife Sanctuary (Notified)	Nil within 10km radius, Karaivetti Birds Sanctuary -25.2 km (SE)
9.	Archaeological important places	Nil within 10 km radius
10.	Defense Installations	Nil within 10 km radius

11.	Nearest Port	Nil within 10 km radius
12.	Seismic Zone	Zone – II (Least Active)

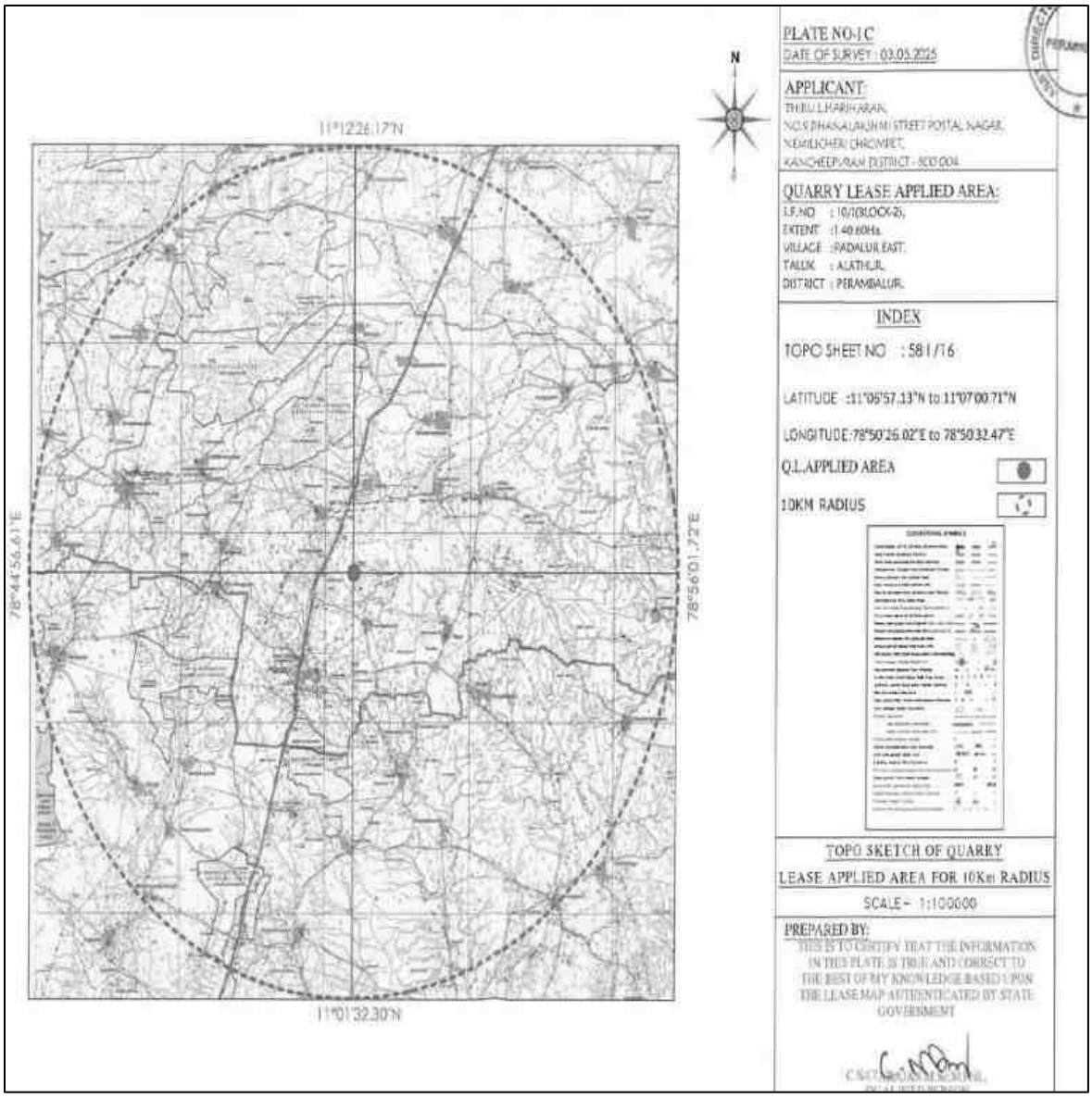


Figure 2.4 10km Radius TOPO Map

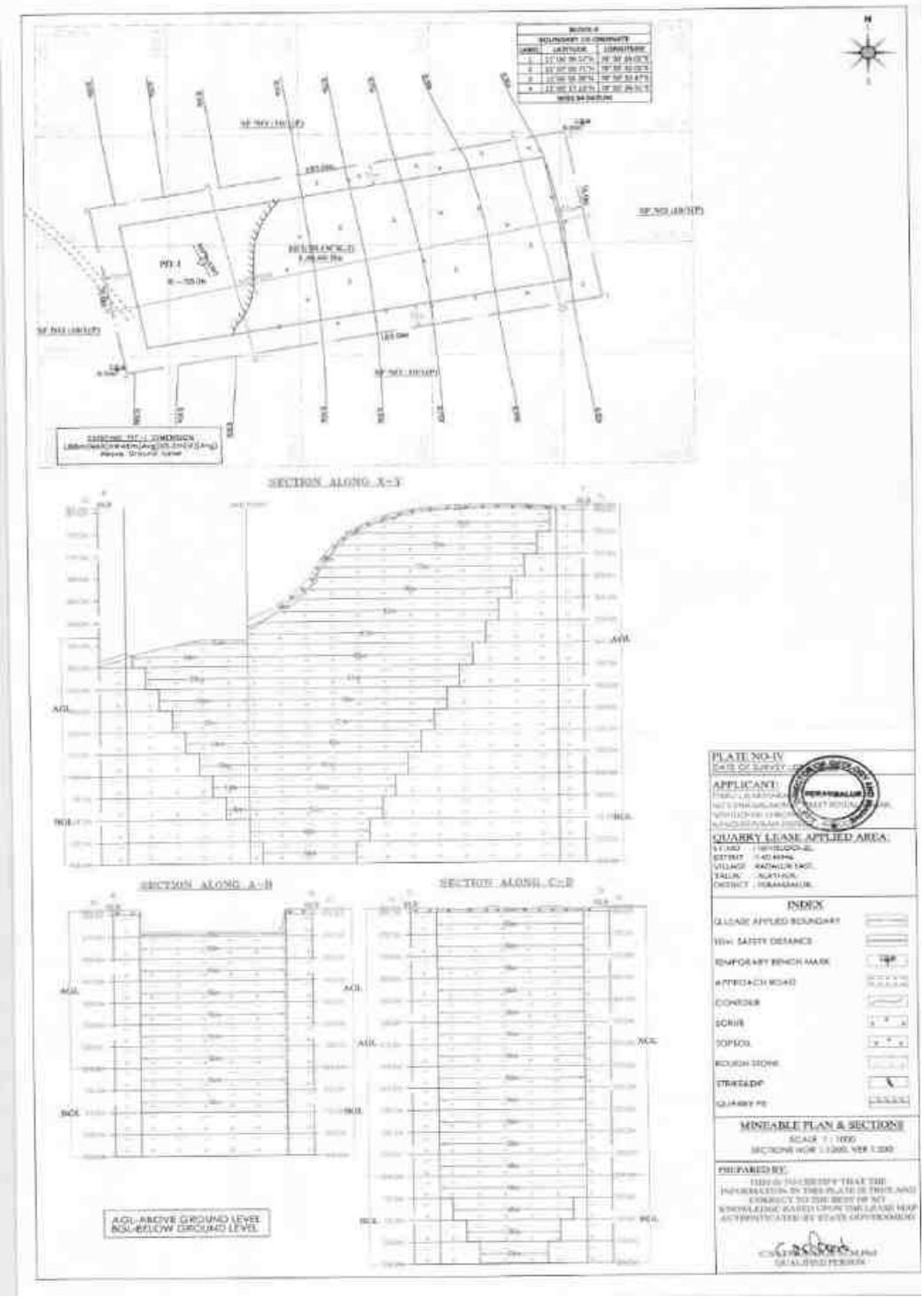


Figure 2.5 Lease Plan

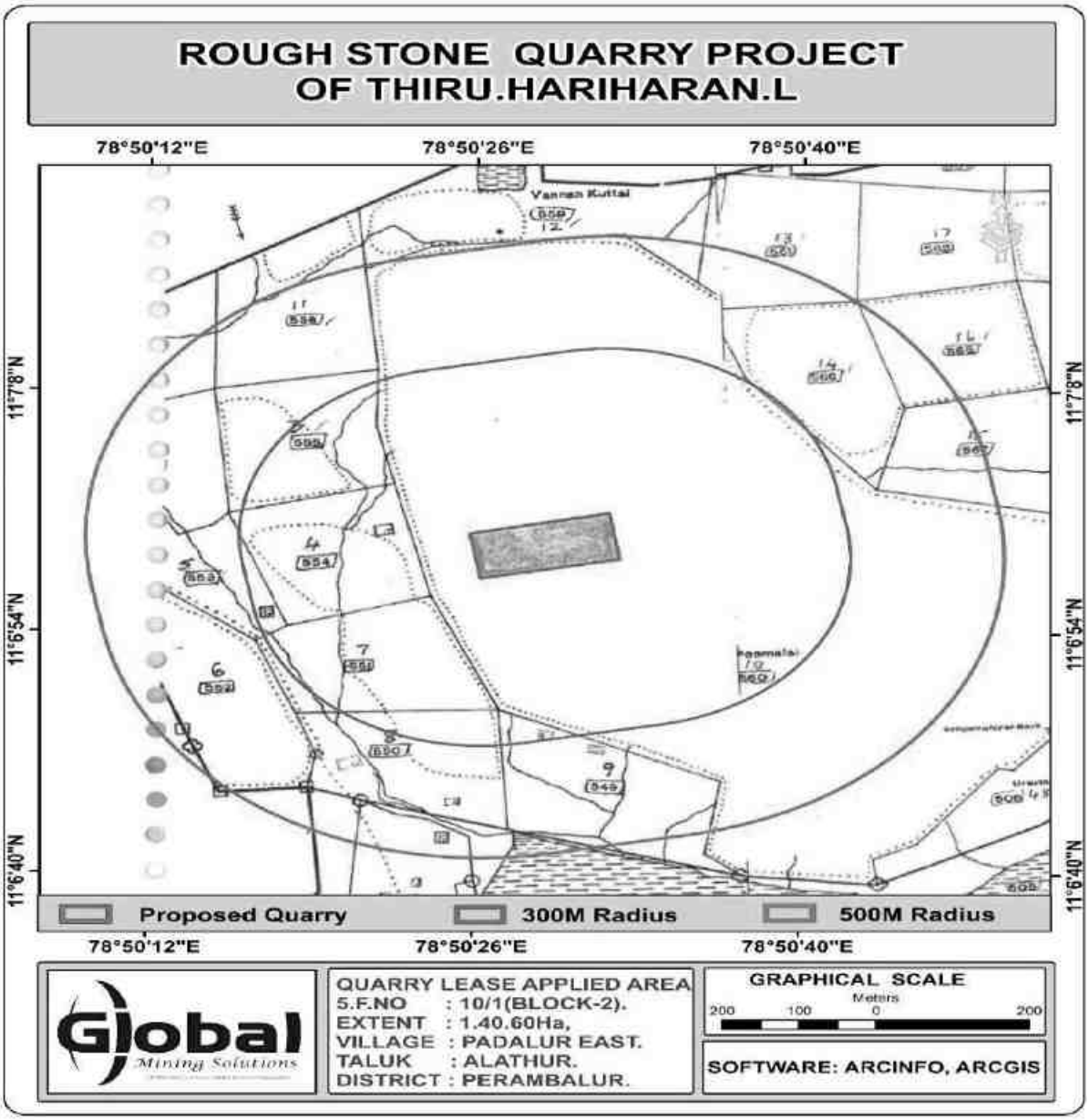


Figure 2.6 Village Map

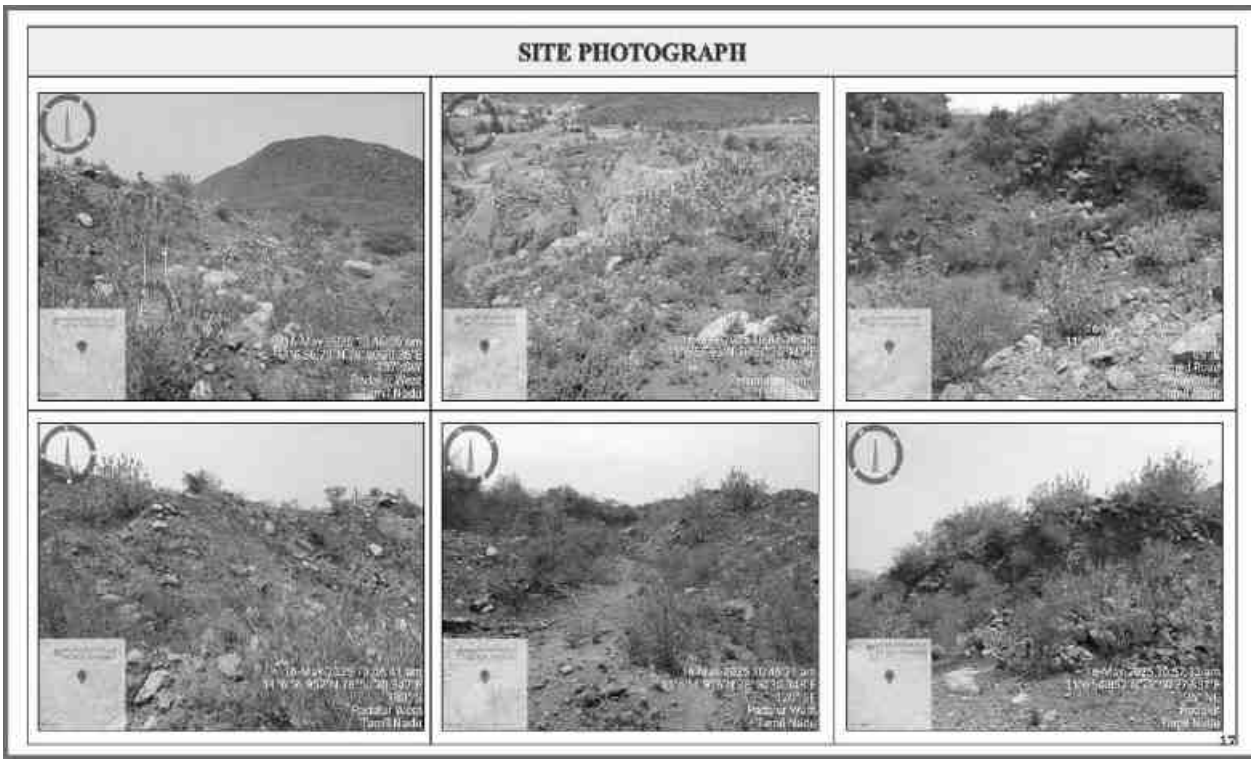


Figure 2.7 Site Photographs

LAND USE PATTERN OF THE PROJECT AREA

The entire project site is Government Poramboke Land and the proponent has obtained tender from the Government. The land use pattern of the mine lease area as of today and conceptual stage given in Table No. 2.6.

Table 2.6 Land use pattern of the Project area

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying Pit	0.42.20	0.92.50
Infrastructure	Nil	0.01.00
Roads	Nil	0.01.00
Safety Zone / Green Belt	Nil	0.46.10
Unutilized	0.98.40	Nil
Total	**1.40.60**	**1.40.60**

2.4 SIZE AND MAGNITUDE OF THE OPERATION

The proposed activity is the extraction of Rough Stone by open cast mechanized mining method over an extent of 1.40.60 Ha and to produce 3,56,042 m^3 of rough stone for 10 years (First Five Years – 1,78,472 m^3 & Second Five Years – 1,77,570 m^3) with ultimate depth up to 81m (61m AGL& 20m BGL).

The details of geological and mineable reserves in the lease area have been provided below in the subsequent sub section.

2.5 TOPOGRAPHY AND DRAINAGE

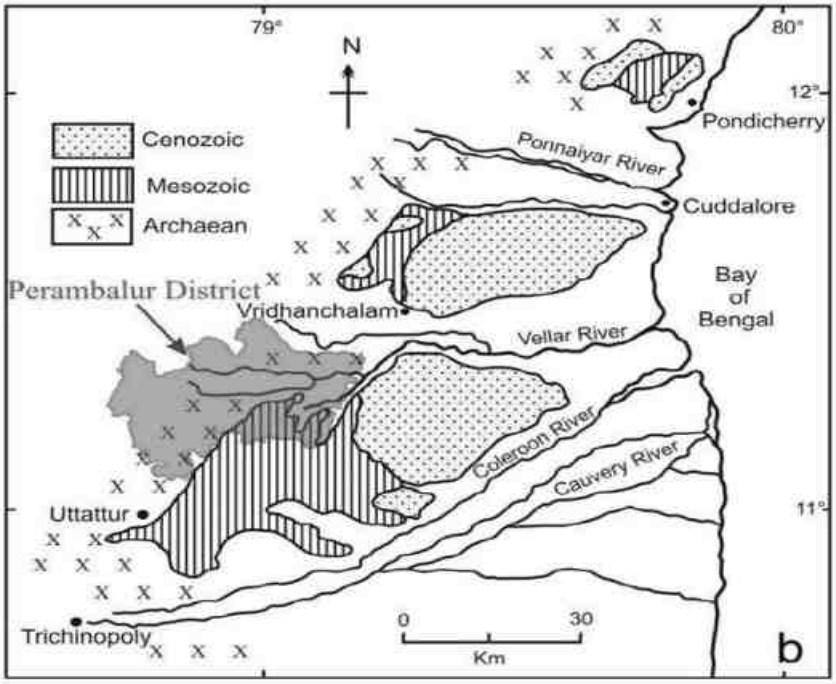
The area applied for quarry lease is exhibits hilly terrain covered by covered by Topsoil formation. The massive Charnockite formation is noticed below 1m (Avg) Topsoil and sloping towards west side of the area, the altitude of the area is above 185m (maximum) from MSL.

2.6 GEOLOGY

2.6.1 REGIONAL GEOLOGY

Perambalur District's geology features ancient crystalline rocks (gneisses, charnockites) in the west, Cretaceous sedimentary formations (limestone, shale, sandstone) known for fossils in the east, and Gondwana system rocks, with alluvial plains in northern and southern fringes, forming diverse landscapes from hills to badlands (Karai). It hosts important minerals like fireclay and limestone, crucial for industries, alongside rich groundwater potential within fractured zones of these hard rocks and sediments.

Source: District Survey Report, Perambalur



2.6.2 GEOLOGY OF THE PROJECT AREA:

The area is underlain by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the district are Archaean rocks like Gneisses, Granites, Charnockites basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite. The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high- grade metamorphic rock.

The strike of the Charnockite formation is $N30^0$ E – $S30^0$W with vertical dipping. The general geological succession of the area is given as under.

	AGE		ROCK TYPE
	Recent	-	Topsoil
	Unconformity		
	Archaean	-	Dolerite dyke
			Charnockite.
			Peninsular
			Gneissic complex
3			and Calc Gneiss

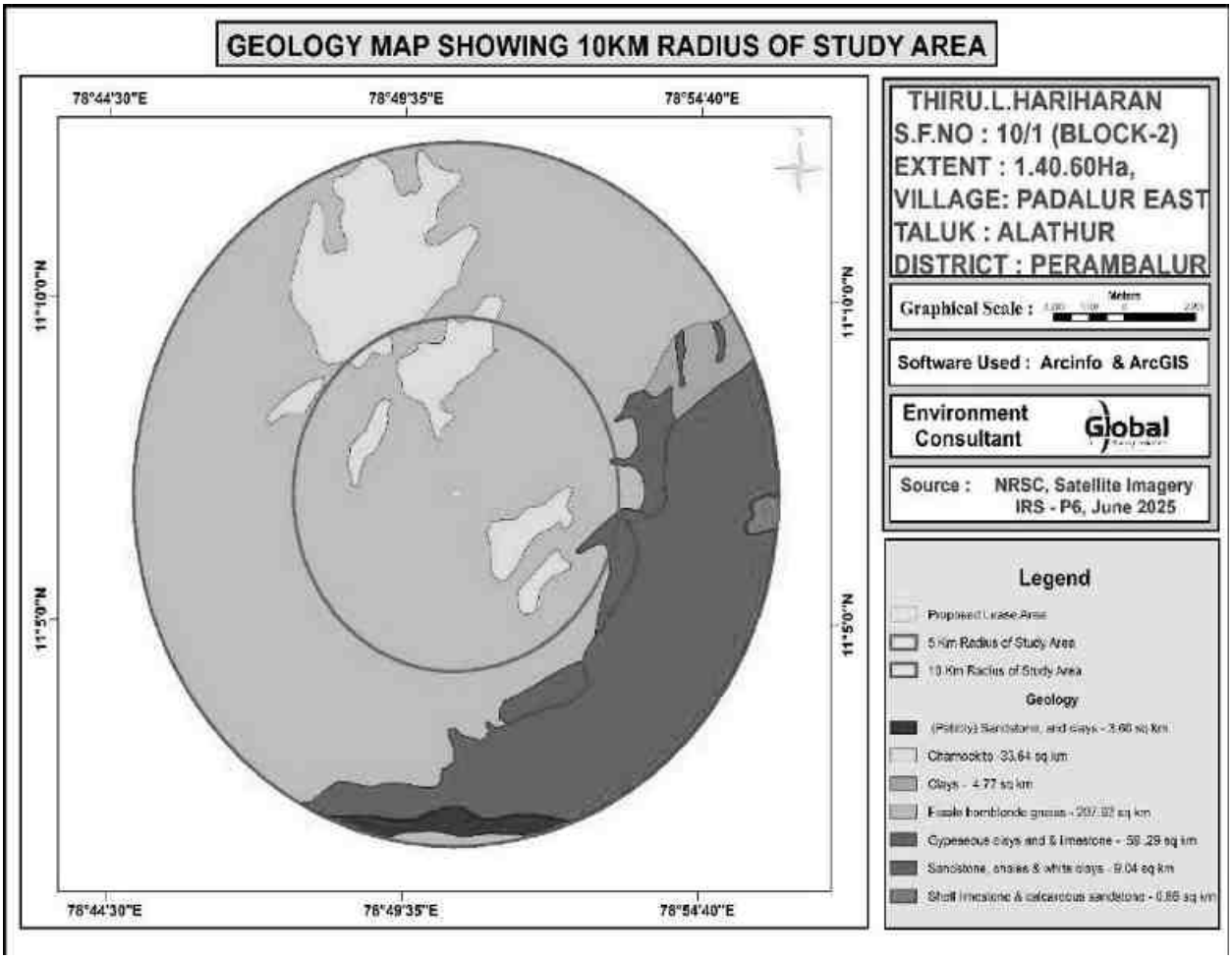


Figure 2.8 Geology Map – 10km Radius from the Project Site

2.7 RESOURCES AND RESERVES

The Resources and Reserves of Rough Stone were calculated based on Cross-Section Method to cover the maximum lease area.

Table 2.7 Available Geological Resources

Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Topsoil m^3	Rough stone in m^3	Bulk Density	Topsoil in Ts	Geological Resources of Rough stone in Ts
XY-AB	Above Ground Level	I	12	21	1	-	252	2.75	-	693.00
		II	22	21	4	-	1848	2.75	-	5082.00
			22	76	1	-	1672	2.75	-	4598.00
		III	46	76	5	-	17480	2.75	-	48070.00
		IV	57	76	5	-	21660	2.75	-	59565.00
		V	57	76	5	-	21660	2.75	-	59565.00
		VI	57	76	5	-	21660	2.75	-	59565.00
		VII	57	76	5	-	21660	2.75	-	59565.00
		VIII	57	76	5	-	21660	2.75	-	59565.00
	Below Ground Level	IX	57	76	5	-	21660	2.75	-	59565.00
		X	57	76	5	-	21660	2.75	-	59565.00
		XI	57	76	5	-	21660	2.75	-	59565.00
		XII	57	76	5	-	21660	2.75	-	59565.00
Total						**-**	**216192**	-	**-**	**594528.00**
XY-CD	Above Ground Level	I	149	76	1	11324	-	2	22648	-
		II	78	76	5	-	29640	2.75	-	81510.00
		III	93	76	5	-	35340	2.75	-	97185.00
		IV	100	76	5	-	38000	2.75	-	104500.00
		V	105	76	5	-	39900	2.75	-	109725.00
		VI	116	76	5	-	44080	2.75	-	121220.00
		VII	129	76	5	-	49020	2.75	-	134805.00
		VIII	129	76	5	-	49020	2.75	-	134805.00

		IX	129	76	5	-	49020	2.75	-	134805.00
		X	129	76	5	-	49020	2.75	-	134805.00
		XI	129	76	5	-	49020	2.75	-	134805.00
		XII	129	76	5	-	49020	2.75	-	134805.00
		XIII	129	76	5	-	49020	2.75	-	134805.00
	Below Ground Level	XIV	129	76	5	-	49020	2.75	-	134805.00
		XV	129	76	5	-	49020	2.75	-	134805.00
		XVI	129	76	5	-	49020	2.75	-	134805.00
		XVII	129	76	5	-	49020	2.75	-	134805.00
Total						11324	726180	-	22648	1996995.00
Grand Total						11324	942372	-	22648	2591523.00

Topsoil Formation :11324 m^3

The Geological Resource of Rough Stone : 9,42,372 m^3

2.7.1 MINEABLE RESERVES

The mineable reserves are calculated by deducting 10 m safety distance and bench loss.

Table 2.8 – Available Mineable Reserves

Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Topsoil in m^3	Rough stone in m^3	Bulk Density	Topsoil in Ts	Mineable Reserves of Rough stone in Ts
XY-AB	Above Ground Level	II	22	56	1	-	1232	2.75	-	3388.00
		III	44	56	5	-	12320	2.75	-	33880.00
		IV	39	56	5	-	10920	2.75	-	30030.00
		V	34	56	5	-	9520	2.75	-	26180.00
		VI	29	56	5	-	8120	2.75	-	22330.00
		VII	24	56	5	-	6720	2.75	-	18480.00

		VIII	19	56	5	-	5320	2.75	-	14630.00
	Below Ground Level	IX	14	56	5	-	3920	2.75	-	10780.00
		X	9	56	5	-	2520	2.75	-	6930.00
Total						**-**	**60592**	-	**-**	**166628.00**
XY-CD	Above Ground Level	I	137	56	1	7672	-	2	15344	-
		II	66	56	5	-	18480	2.75	-	50820.00
		III	75	56	5	-	21000	2.75	-	57750.00
		IV	77	56	5	-	21560	2.75	-	59290.00
		V	78	56	5	-	21840	2.75	-	60060.00
		VI	83	56	5	-	23240	2.75	-	63910.00
		VII	91	56	5	-	25480	2.75	-	70070.00
		VIII	86	56	5	-	24080	2.75	-	66220.00
		IX	81	56	5	-	22680	2.75	-	62370.00
		X	76	56	5	-	21280	2.75	-	58520.00
		XI	71	56	5	-	19880	2.75	-	54670.00
		XII	66	56	5	-	18480	2.75	-	50820.00
		XIII	61	56	5	-	17080	2.75	-	46970.00
	Below Ground Level	XIV	56	56	5	-	15680	2.75	-	43120.00
		XV	51	46	5	-	11730	2.75	-	32257.50
		XVI	46	36	5	-	8280	2.75	-	22770.00
		XVII	36	26	5	-	4680	2.75	-	12870.00
Total						**7672**	**295450**	-	**15344**	**812487.50**
Grand Total						**7672**	**356042**	-	**15344**	**979115.50**

The available mineable reserve is computed as 3,56,042 of Rough stone and 7,672m^3 of Topsoil upto a depth of 81m (61m above ground level and 20m below ground level) only.

2.8 PROCESS DESCRIPTION AND TECHNOLOGY

2.8.1 PROCESS DESCRIPTON

The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough stone to the needy buyers. The production of Rough stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining.

- Splitting of rock mass of considerable volume from the parent rock mass by jackhammer drilling and blasting, hydraulic excavators are used for loading the Rough Stone from pithead to the needy buyers.
- Occasionally hydraulic excavators are attached with rock breakers for fragmentation to avoid secondary blasting.
- The primary boulders thus splitted are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators.

The process diagram is provided in Figure 2.9. The production plan and cross section and conceptual plan and conceptual cross section is given in Figure No. 2.10 - Figure No. 2.11.

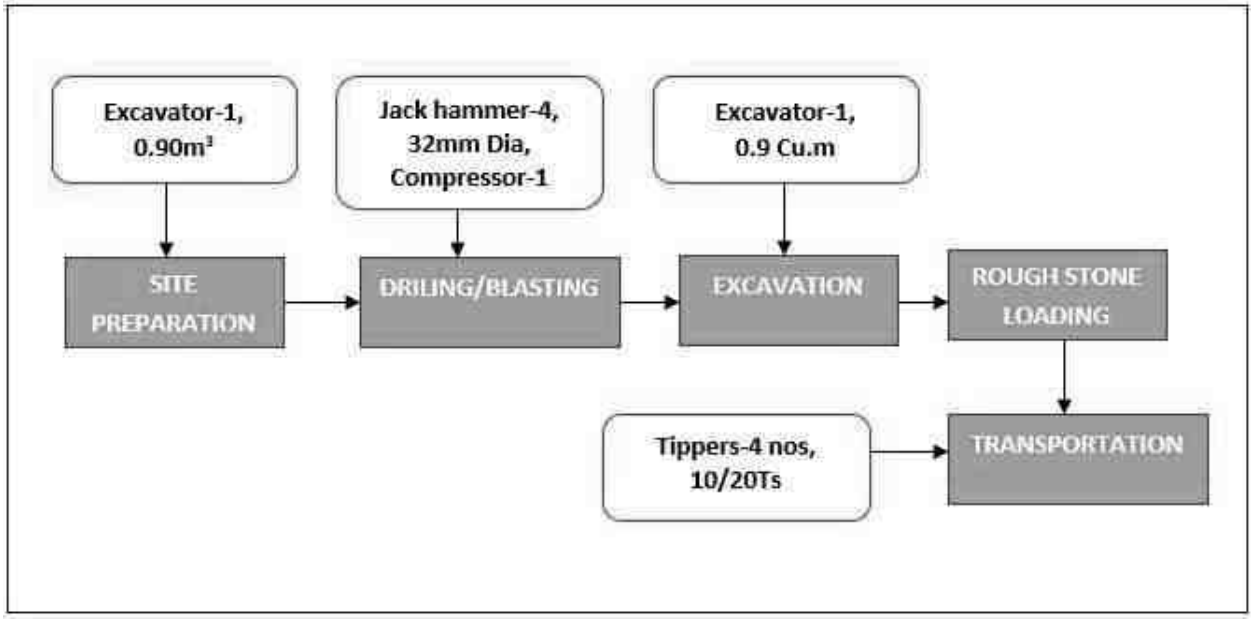


Figure 2.9 Process Flow Diagram

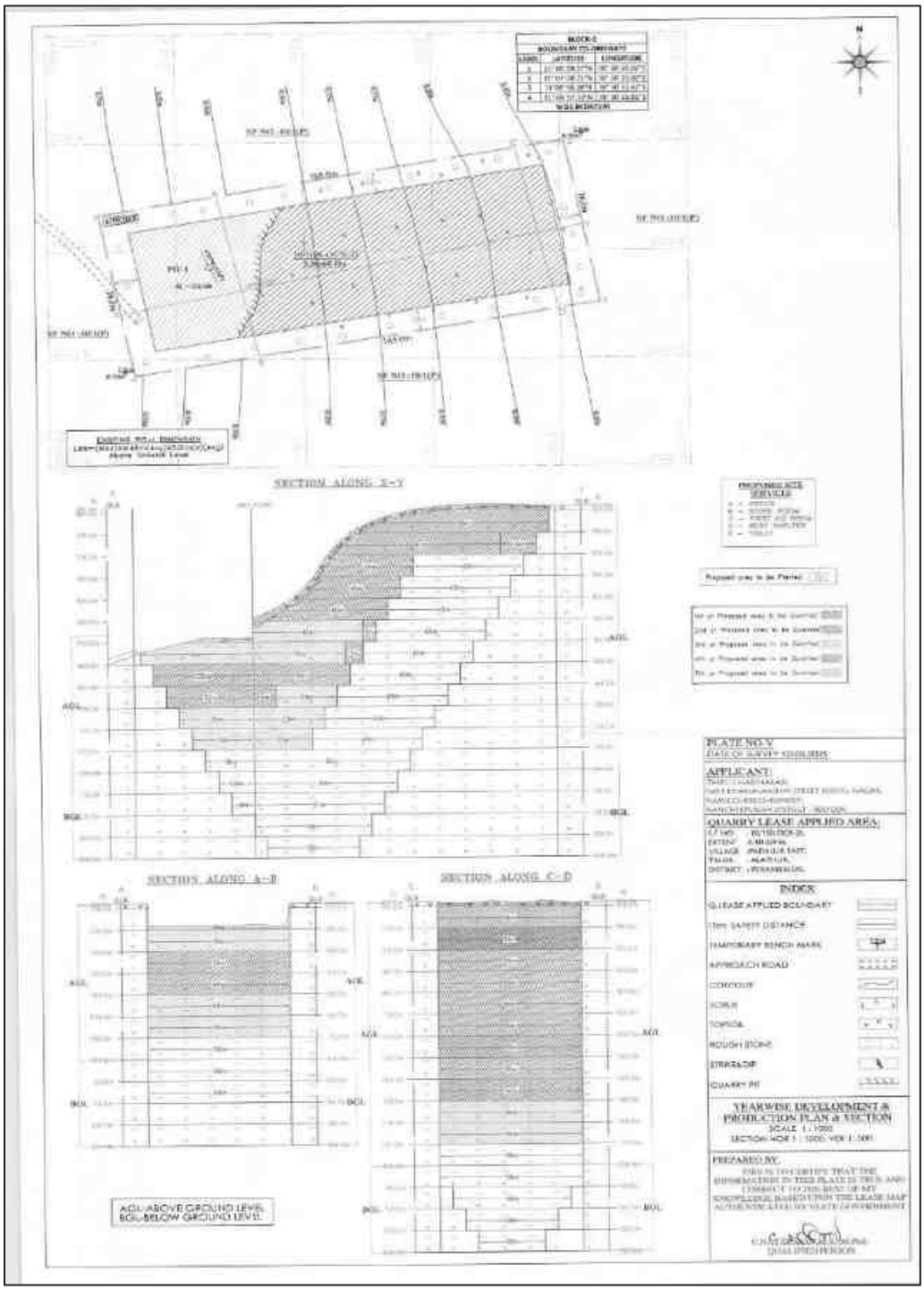


Figure 2.10 Year wise Development & Production Sections

Table 2.9 – Machinery Details

S.No.	Name of the Equipment	Capacity	Requirement
1	Excavator with Rock breaker attachment	0.90 m^3	2
2	Compressor	400 psi	1
3	Jack hammer	32 mm Dia	4
4	Tipper	10/20 T	4

2.8.2 DRILLING AND BLASTING PARAMETERS

Drilling and Blasting will be carried out as per parameters given below,

Table 2.10 – Details of Blasting

Diameter of the hole	32-36 mm
Spacing	0.6m
Depth	1 to 1.5 m
Burden of hole	0.6m
Pattern of hole	Zig zag
Inclination of hole	70^0 from horizontal
Number of holes	108
Powder factor	6Ts/Kg of Explosives
Total explosive required	54 Kg slurry Explosives
Charge / hole	0.5Kg
Blasting time	12-2 Pm

2.8.3 TYPE OF EXPLOSIVE

Slurry explosive is proposed for shattering and heaving effect for removal of rough stone. No deep hole drilling or primary blasting is proposed.

2.8.4 STORAGE OF EXPLOSIVES

No proposal for storage of explosives within the project area, the applicant will engage authorized explosive agency to carry out the blasting and it will be supervised by competent and statutory foreman / mines manager as per DGMS guidelines.

2.8.5 PRODUCTION SCHEDULE

The year wise production schedule upto lease period of 10 years is given below, the year wise production plan is given in Figure 2.10.

Table 2.11 Year wise Production Plan for first five years

Year	Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Topsoil m^3	Rough stone in m^3	Bulk Density	Topsoil in Ts	Mineable Reserves of Rough stone in Ts
I	XY-CD	Above Ground Level	I	137	56	1	7672	-	2	15344	-
			II	66	56	5	-	18480	2.75	-	50820.00
			III	61	56	5	-	17080	2.75	-	46970.00
Total							**7672**	**35560**	**-**	**15344**	**97790.00**
II	XY-CD	Above Ground Level	III	14	56	5	-	3920	2.75	-	10780.00
			IV	34	56	5	-	9520	2.75	-	26180.00
			V	35	56	5	-	9800	2.75	-	26950.00
			VI	40	56	5	-	11200	2.75	-	30800.00
			VII	5	56	5	-	1400	2.75	-	3850.00
Total							**-**	**35840**	**-**	**-**	**98560.00**
III	XY-CD	Above Ground Level	VII	43	56	5	-	12040	2.75	-	33110.00
			VIII	36	56	5	-	10080	2.75	-	27720.00
	XY-AB	Above Ground Level	II	22	56	1	-	1232	2.75	-	3388.00
			III	44	56	5	-	12320	2.75	-	33880.00
Total							**-**	**35672**	**-**		**98098.00**
IV	XY-CD	Above Ground Level	VII	7	56	5	-	1960	2.75	-	5390.00
			IX	38	56	5	-	10640	2.75	-	29260.00
			X	9	56	5	-	2520	2.75	-	6930.00
	XY-AB	Above Ground Level	IV	39	56	5	-	10920	2.75	-	30030.00
			V	34	56	5	-	9520	2.75	-	26180.00
Total							**-**	**35560**	**-**	**-**	**97790.00**
V	XY-CD	Above Ground Level	X	24	56	5	-	6720	2.75	-	18480.00
			XI	28	56	5	-	7840	2.75	-	21560.00
			XII	23	56	5	-	6440	2.75	-	17710.00
	XY-AB	Above Ground Level	VI	29	56	5	-	8120	2.75	-	22330.00
			VII	24	56	5	-	6720	2.75	-	18480.00
Total							**-**	**35840**	**-**	**-**	**98560.00**
Grand Total							**7672**	**178472**	**-**	**15344**	**490798.00**

Table 2.12 Year wise Production Plan for Second five years

The proposed tentative yearwise production for 6th to 10th year is given below

Table No-5

Year	Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Rough stone in m^3	Bulk density	Mineable Reserves of Rough stone in Ts
VI	XY-CD	Above Ground Level	IV	43	56	5	12040	2.75	33110.00
			V	43	56	5	12040	2.75	33110.00
			VI	37	56	5	10360	2.75	28490.00
Total							**34440**		**94710.00**
VII	XY-CD	Above Ground Level	VI	6	56	5	1680	2.75	4620.00
			VII	43	56	5	12040	2.75	33110.00
			VIII	43	56	5	12040	2.75	33110.00
			IX	36	56	5	10080	2.75	27720.00
Total							**35840**		**98560.00**
VIII	XY-CD	Above Ground Level	IX	7	56	5	1960	2.75	5390.00
			X	43	56	5	12040	2.75	33110.00
			XI	43	56	5	12040	2.75	33110.00
			XII	34	56	5	9520	2.75	26180.00
Total							**35560**		**97790.00**
IX	XY-CD	Above Ground Level	XII	9	56	5	2520	2.75	6930.00
			XIII	61	56	5	17080	2.75	46970.00
		Below Ground Level	XIV	25	56	5	7000	2.75	19250.00
	XY-AB	Above Ground Level	VIII	19	56	5	5320	2.75	14630.00
		Below Ground Level	IX	14	56	5	3920	2.75	10780.00
Total							**35840**		**98560.00**
X	XY-CD	Below Ground Level	XIV	31	56	5	8680	2.75	23870.00
			XV	51	46	5	11730	2.75	32257.50
			XVI	46	36	5	8280	2.75	22770.00
			XVII	36	26	5	4680	2.75	12870.00
	XY-AB	Below Ground Level	X	9	56	5	2520	2.75	6930.00
Total							**35890**		**98697.50**
Grand Total							**177570**		**488317.50**

The applicant has proposed to carry out 4,90,798Ts of Rough stone and 15,344Ts of Topsoil formation upto a depth of 56m (above ground level) for the period of first five years and remaining quantity of 4,88,317.50Ts of Rough Stone will be proposed for the period of second five years upto a depth of 81m (61m above ground level and 20m below ground level).

2.8.6 DISPOSAL OF WASTE

There is no waste anticipated in this rough stone Quarry. The entire quarried minerals will be utilized. Rough Stone, after the excavation Rough Stone will be directly loaded into tipper to the needy buyers for road project and construction works for filling and

leveling of low-lying areas. The top soil generated will be stored in the safety area and utilized for plantation purpose.

2.9 CONCEPTUAL MINING PLAN / FINAL MINE CLOSURE PLAN

Conceptual mining plan is prepared with an object of ten years of systematic development of bench layouts, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructure etc.

The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc. Conceptual cross section and conceptual plan is given in Figure 2.11.

The existing pit dimensions as per approved mining plan is given below.

Pit No	Length in (m)	Width in (m)	Depth in (m)
Pit I	88	48	5m AGL

Table 2.13 - Ultimate Pit Dimension at the end of Lease period

Pit	Length in m (Max)	Width in m (Max.)	Depth in m (Max.), bgl
I	165	56	81m (61m AGL and 20m BGL)

Table 2.14 - Land use pattern of the Project site

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying pit	0.42.20	1.92.50
Infrastructure	Nil	0.01.00
Roads	Nil	0.01.00
Greenbelt	Nil	0.46.10
Unutilized	0.98.40	Nil
Total	**1.40.60**	**1.40.60**

- At the end of life of mine, the excavated mine pit / void of 1.92.50 Ha will act as artificial reservoir for collecting rain water and helps to meet out the demand or crises during drought season.
- After mine closure the greenbelt (0.46.10 Ha.) will be developed along the safety barrier and top benches and 0.02 Ha are approach road and Infrastructure.

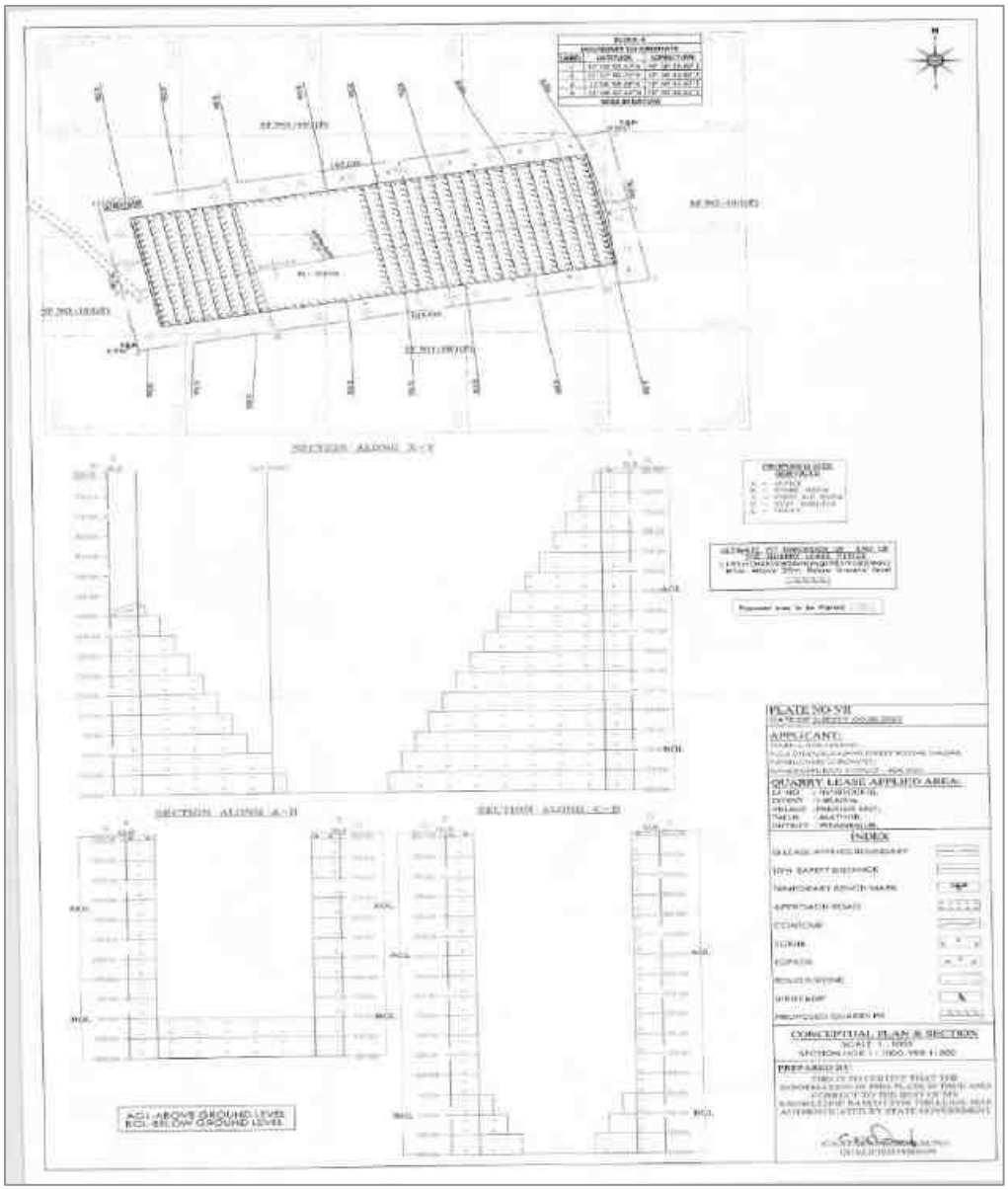


Figure 2.11 Conceptual Cross Section

2.10 PROJECT REQUIREMENT

2.10.1 WATER REQUIREMENT AND SOURCE

The total water requirement estimated for the quarry is 3.0 KLD. The required water will be procured from outside agencies initially and later rainwater harvested in the mine pit shall be used other than drinking purpose.

Table 2.15 Water requirement

Activity	Water Requirement in KLD
Drinking & Domestic	1.0
Dust Suppression	1.0
Greenbelt Development	1.0
Total	**3.0**

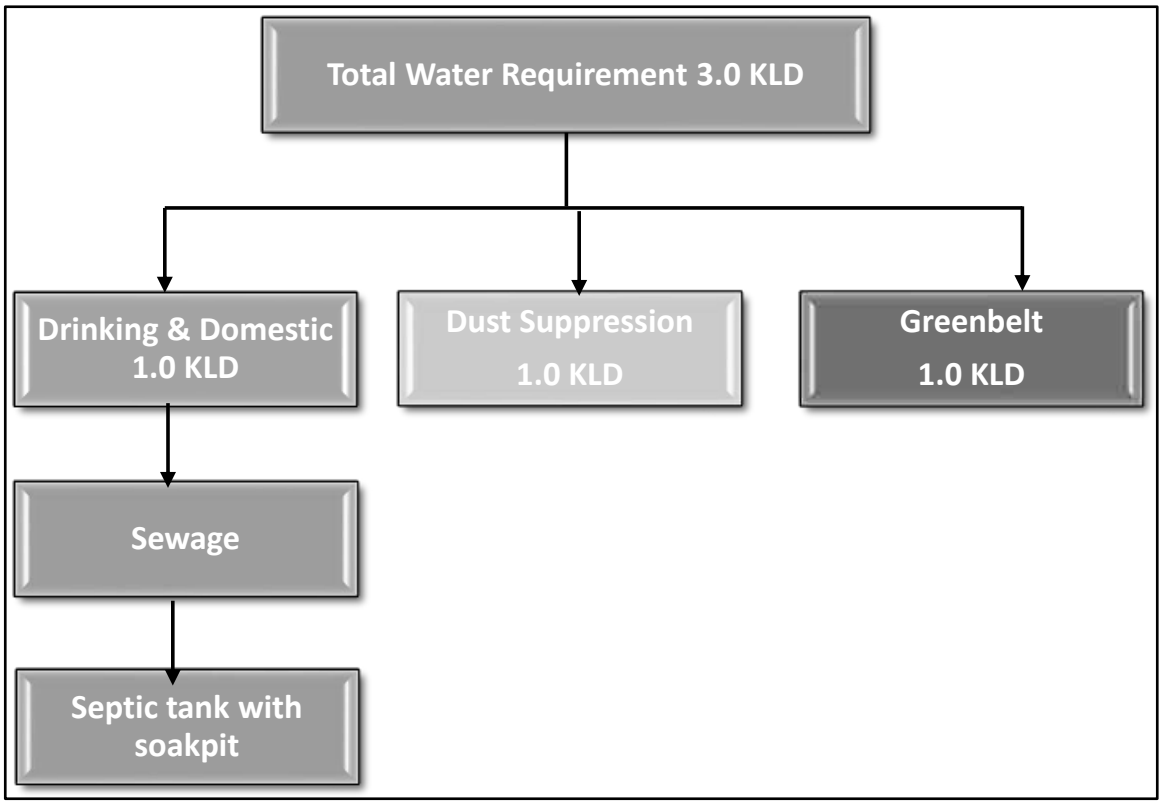


Figure 2.12 Water Balance Chart

2.10.2 POWER REQUIREMENT

All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc will be met from state grid.

2.10.3 FUEL REQUIREMENT

High speed Diesel (HSD) will be used for mining machineries.

Table 2.16 Details of Fuel (HSD) Requirement

i) For Rough Stone

Per hour excavator will consume	16 liters /hr
Per hour excavator will excavate	20 m^3 of Rough Stone
For 3,57,640m^3	3,56,042/20 = 17,882
So, Diesel consumption	= 17,802 x 16 litres
	=2,84,833 litres of HSD

The Total fuel consumption is around 284.833 KL of HSD for the entire period of life (5 years).

2.10.4 EMPLOYMENT GENERATION

The project will provide employment opportunities totally to 14 persons directly and 19 indirectly.

Table 2.17 Details of Manpower requirement

1.	Skilled	Mines Manager	1 No.
		Foreman / Mate	2 No.
		Operator	10 No.
		Mechanic	1 No.
2.	Semi–skilled	Driver	4 No.
3.	Unskilled	Labours	15 Nos
		Total =	33 Nos

2.10.5 GREEN BELT REQUIREMENT

The safety zone, covering an area of 0.46.10 Hectares, will be maintained as a green belt and planted with 460 Nos. of local species.

2.10.6 VEHICULAR TRAFFIC DENSITY

The proposed quarry is located in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. The final product from the quarry will be transported through (NH-38) Viluppuram – Trichy – 0.97 km (NW). The details of transport route from the quarry shown below:

Figure 2.13 Mineral Transportation Map

The vehicular traffic survey will be carried out in the route through which mined out minerals are transported. Within 500 m radius, there are two proposed quarries including this proposal. The final product from this quarry will be transported through (NH-38) Viluppuram – Trichy – 0.8 km (NW).

Methodology

Vehicle Count

The vehicles passing through the road (in both ways) were counted separately for 24 hours at the one elected location from 0600 hrs to 0600 hrs next day continuously. Category wise vehicle counting has been done continuously and recorded in the traffic volume count on hourly basis under respective categories.

Categorization of Traffic

The engine driven vehicles were categorized into various heads viz. two wheelers, three wheelers, four wheelers and trucks/bus. The level of service is given below. **(Source: Recommended Design Service Volumes (PCUs per hour), IRC)**

Level of Service	General Operating conditions	Range of V/C
A	Free flow (traffic flows at or above speed limit and motorists have complete mobility between lanes)	<0.30
B	Reasonable flow (slightly more congested, with some maneuverability)	0.3 – 0.47
C	Stable flow (more congested than B, loads close to capacity)	0.48 – 0.68
D	Approaching unstable flow (speeds are somewhat reduced, example: busy corridor during middle of a weekday, or a functional urban highway during rush hour)	0.69 – 0.88
E	Unstable flow (flow becomes irregular, speed varies widely and rarely reaches speed limit)	0.88 - 1.00
F	Forced or breakdown flow (a constant traffic jam)	>1.00

Mineral Transportation

Table 2.18 Mineral Transportation			
Production Per day in tons			
Quarry	**Quarry Name**	**Total Mineral in tons per day**	**No. of Lorry Load per day**
P1 (Proposed)	Thiru.Hariharan.L	329	33
P2 (Proposed)	Thiru.R.Rajkumar	579	58
P3 (Proposed)	M/s.Mars Mines	385	39
P4(Proposed)	Thiru.R.Vinoth	247	25
P5(Proposed)	Thiru.P.Velmurugan	220	22
P6(Proposed)	M/s.SR Mines and Minerals	656	66
P7 (Proposed)	Thiru.M.Thangaraj	233	23
P8(Proposed)	Anjaneya Minerals	515	52
P9(Proposed)	P. Velmurugan	1818	182
Total		**4982**	**500**

The proposed project will bring 500 trips per day.

Table 2.19 Summary on Traffic Volume

Route	Existing Traffic Survey in PCU	Incremental Traffic Survey due to project (cluster)	Total traffic survey volume	Hourly capacity in PCU as per IRC -1960 guidelines
NH 38	592	187	779	3600

Table 2.20 Modified Level of Service

Route	Existing Volume PCU/hr	Existing V/C Ratio	Additional Volume PCU/hr	Modified Volume PCU/hr	Modified V/C ratio	Modified LOS
NH 38	592	0.16	187	0.05	0.21	A*

2.10.7 INFRASTRUCTURE REQUIREMENT

This is a proposed project. Site services like mine office, first aid room, toilets etc. will be provided as semi-permanent structures.

2.10.8 PROJECT COST

The total project cost of this Rough stone Quarry is Rs. 952.23 Lakhs (including EMP & CER cost).

2.10.9 PROJECT IMPLEMENTATION SCHEDULE

The proponent proposes to implement the production immediately after obtaining all the statutory approvals. The commercial operation will commence after the grant of Environmental Clearance. CTO and CTE will be obtained from the Tamil Nadu State Pollution Control Board. The conditions imposed during the Environmental Clearance will be compiled before the start of mining operation.

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CHAPTER 3
DESCRIPTION OF THE ENVIRONMENT

3.1. STUDY AREA, PERIOD COMPONENTS AND METHODALOGY

The project area is located in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State over an extent of 1.40.60 Ha., The project area is considered as Core zone and the area in the surrounding 10km radius is considered as Buffer Zone. The baseline environmental monitoring was conducted by Shrient Analytical & Research Labs Private Limited, Chennai it is an NABL and MOEF recognized laboratory for various components of environment, viz. Air, Noise, Water, Land was carried out during Summer Season i.e. March 2025 to May 2025 in the study area covering 10 km radial distance from the rough stone mine. Other environmental data on flora and fauna, land-use pattern, forest etc. were also generated through field surveys and secondary information collected from different State Govt. departments. Sampling methods and analysis. Socio-economic survey was conducted, through interaction with the people, sarpanch and medical officers by floating questionnaires and collection of information are supported by census data for demographic structures, amenities, and infrastructure availability within the study area. Baseline values for various environmental components are discussed in this Chapter.

ENVIRONMENTAL SETTING OF THE STUDY AREA

Table 3.1 Description of the lease area

S.No.	Areas	Distance from project site
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil within 15km radius
2	Areas which are important or sensitive for ecological reasons	

A	Wetlands, water courses or other water bodies,	Tank- 320m(S), Tank – 620m (SE), Maruthadi Eri-1.35Km(SW), Therani Big Lake-4.16Km(SE), Nanthai River – 4.3 km (S)
B	Coastal zone, biospheres,	Nil within 10km radius
C	Mountains, forests	Naranamangalam R.F-3.01Km(NW), Nedungur R.F-4.2Km(SW), Maniyankurichi R.F -4.7Km(SW) Marmareddipalayam-7.5Km(SW)
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 10 km radius
4	Inland, coastal, marine or underground waters	Nil within 10 km radius
5	State, National boundaries	Nil within 10 km radius
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 10 km radius
7	Defense installations	Nil within 10 km radius
8	Densely populated or built-up area	Padalur West – 2.5 km SW
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Padalur West – 2.5 km SW
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Nil
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	Nil

12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earth quakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No. The area is not prone to earthquakes, floods, etc.

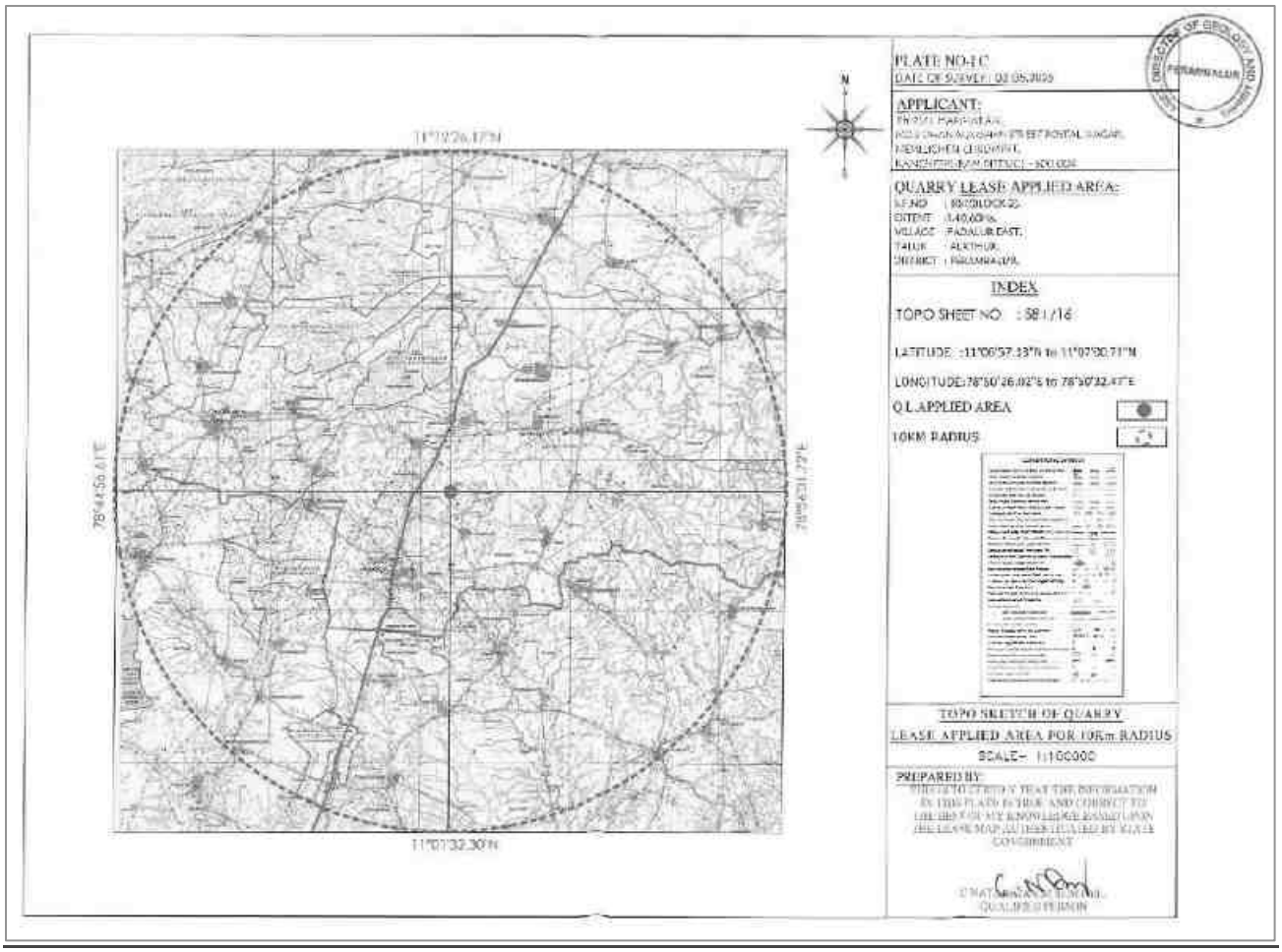


FIG 3.1 ENVIRONMENTAL SETTING OF THE STUDY AREA

STUDY PERIOD

The relevant information and data (both primary and secondary) were collected in core as well as buffer zone (10 km distance from the mine boundary) during Summer Season (March to May 2025) in accordance with the guidelines for preparation of EIA studies in order to assess the impact of the mine site within the 10 Km study area on existing physical, biological and social environment.

3.2 ESTABLISHMENT OF BASELINE FOR VALUED ENVIRONMENTAL COMPONENTS:

Information on the following components/parameters were collected to understand the existing scenario of the core and buffer area:

- Meteorological environment
- Air environment
- Water environment
- Noise environment
- Soil environment
- Biological environment
- Land use & Land cover
- Socio economic environment
- Hydrogeology

BASELINE DATA COLLECTION

Baseline environment data on various components of the environment in the study area were collected during Summer Season (March., to May., 2025) to assess the present scenario of the area. Details are given in the table given below.

Baseline data collection During Post Monsoon Season (March., to May., 2025)

Sr.No	Environmental Component	Primary data		
		Parameters	Frequency	Monitoring/ Sampling locations
1	Land	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	Once in a Season	10 km radius study area
2	Meteorology	Temperature, Relative Humidity, Wind Speed, Wind Direction.	Hourly	1
3	Air	PM10, PM2.5, SO2, NO2, CO & PAH	twice a week (24 hourly)	7
4	Noise	Equivalent noise levels in Leq in dB (A)	Once in a season (day & night time)	7

5	Water	Parameters as per IS 10500 - 2012	Once in a season	
A	Surface Water	Parameters as per IS 10500 - 2012	Once in a season	3
B	Ground Water	Parameters As per IS 2720/USDA	Once in a season	7
6	Soil	Parameters As per IS 2720/USDA	Once in a season	7
7	Biological Environment	Flora and Fauna	Once in a season	Study Area
8	Socio-Economic Environment	Socio-Economic Environment	Once in a season	Study Area

INSTRUMENTS USED FOR ENVIRONMENTAL BASELINE DATA COLLECTION

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

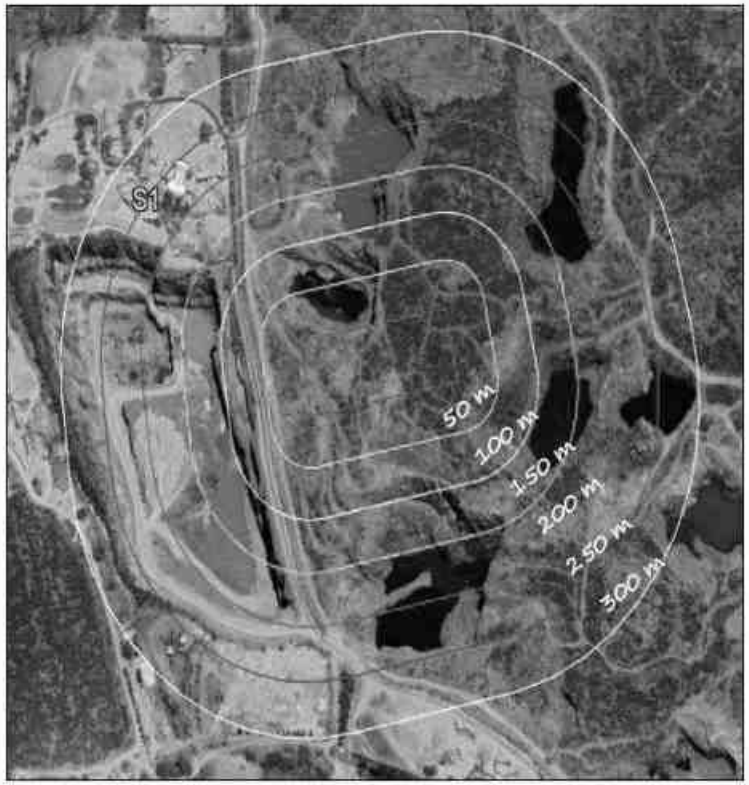
- Respirable Dust Sampler with attachment for gaseous Pollutants, Envirotech APM 460.
- Fine Particulate Matter (FPS) Sampler APM 550
- Sound Level Meter Model Envirotech SLM - 100
- Digital D.O. Meter Model - 831 E (CPCB Kit)
- Weather Monitoring Station Model Enviro WM 271
- Water Level Indicator and
- Global Positioning System (GPS) Apart from collecting samples of air, water, noise and soil from representative sampling points given in proceeding sections, the data on land use, vegetation and agricultural crops were also collected by the field team through interaction with a large number of local inhabitants of the study area and different Government departments/agencies. This provided an excellent opportunity to the members of the field team for obtaining clear scenario of the existing environment of the study area.

3.3. BASE MAP OF ALL ENVIRONMENTAL COMPONENTS

(ENUMERATION OF THE STRUCTURES LOCATED WITHIN 1.0 KM RADIUS FROM THE PROPOSED QUARRY SITE)

A site survey has been conducted to identify and list structures located within a 300 m radius from the proposed Quarry and are detailed below. There are no permanent approved structures within a 300 m radius from the project site. The PP has obtained a letter from Village Administrative Office (VAO), Padalur (East) stating that there are no structures situated within 300 m radius. According to the field study, within a 300-meter radius, only one crusher unit—Balamurugan Blue Metals Crusher Unit—is located 223 meters to the northwest. There is no habitation within this 300-meter radius.

ENUMERATION OF THE STRUCTURES LOCATED WITHIN 300m RADIUS FROM THE PROPOSED PROJECT SITE



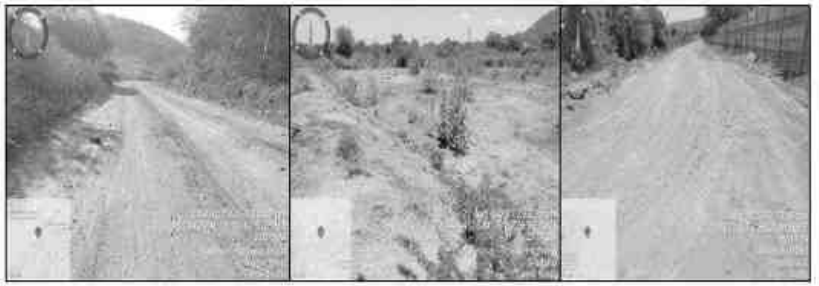
S. No	Name of the Structure	Distance and Direction	Ownership	Occupant	Type	Age
S1	Balamurugan Blue Metals Crusher Unit	223 m (NW)	Does not belong to the PP	-	-	>9 years

S1-Balamurugan Blue Metals Crusher Unit-223m(NW)

FIGURE 3.2 - ENUMERATION OF THE STRUCTURES LOCATED WITHIN 300m RADIUS FROM THE PROPOSED PROJECT SITE

ENVIRONMENTAL FEATURES LOCATED WITHIN 500m RADIUS FROM THE PROPOSED QUARRY SITE

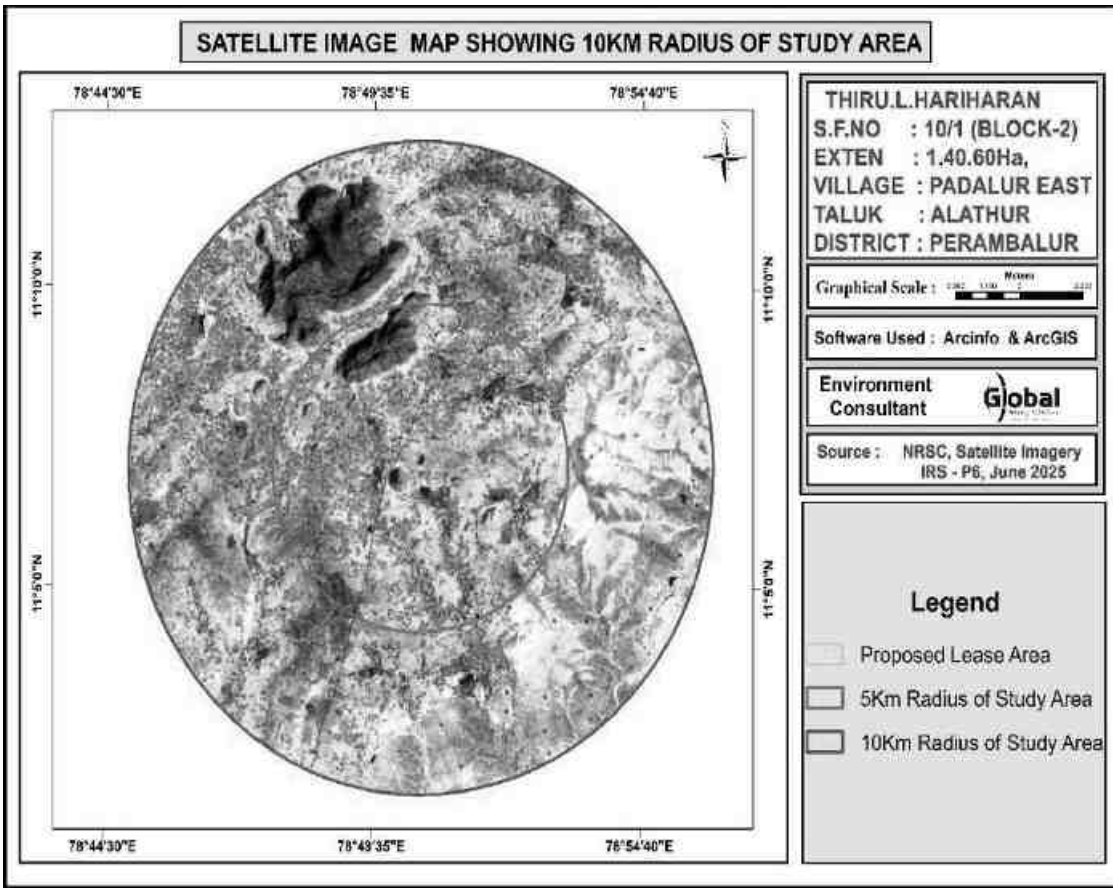
S. No.	Name of the Feature	Distance and Direction
E1	Cartrack	255m(NE)
E2	Tank	320m(S)
E3	Cartrack	460m(W)



E1-Cartrack-255m(NE) E2-Tank-320m(S) E3-Cartrack-460m(W)

FIGURE 3.3 - ENVIRONMENTAL FEATURES LOCATED WITHIN 500m RADIUS FROM THE PROPOSED QUARRY SITE

FIGURE - 3.4 SATELLITE MAP OF THE PROJECT AREA (10 KM RADIUS)



3.3.1 METEOROLOGICAL ENVIRONMENT

Meteorological conditions prevailing in the buffer zone is given below

Climate

Perambalur district enjoys a typical semi-arid climate with hot summers and moderately cool winters. The hottest season is from March to May. During the period the maximum temperature often exceeds 40°C. The winter season is spread over two months viz. January and February and the nights are cool and pleasant. The district generally has a high humidity.

Rainfall

Rainfall of this area is about 600mm to 1100 mm during the both NE & SW monsoons. The surrounding area is practiced by the seasonal cultivation. The average rainfall is about 600mm to 1100mm and the temperature ranges from 13.5^{0}C during winter and to a maximum of 38.7^{0}C during the summer.

Table 3.2 - Annual Rainfall Variation

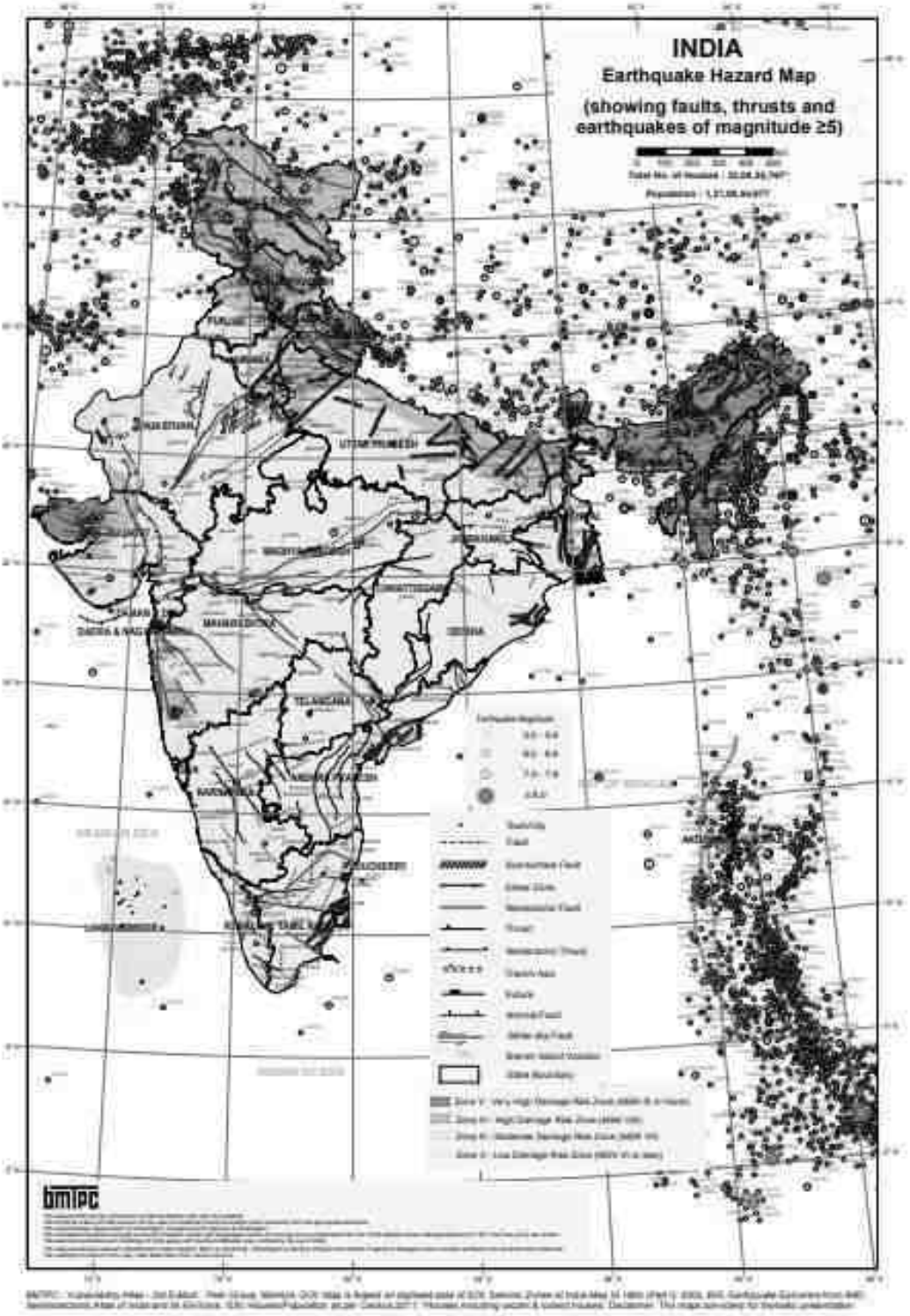
Actual Rainfall in mm					Normal Rainfall in mm
2019	**2020**	**2021**	**2022**	**2023**	
747.3	629.2	1563.4	1043.8	737	816

Source: TWAD, Perambalur

Seismic Sensitivity

The proposed project site falls in the seismic Zone II, low damage risk zone as per BMTPC, Vulnerability Atlas of Seismic zone of India IS: 1893 – 2002.

FIG 3.5 SEISMIC MAP OF INDIA



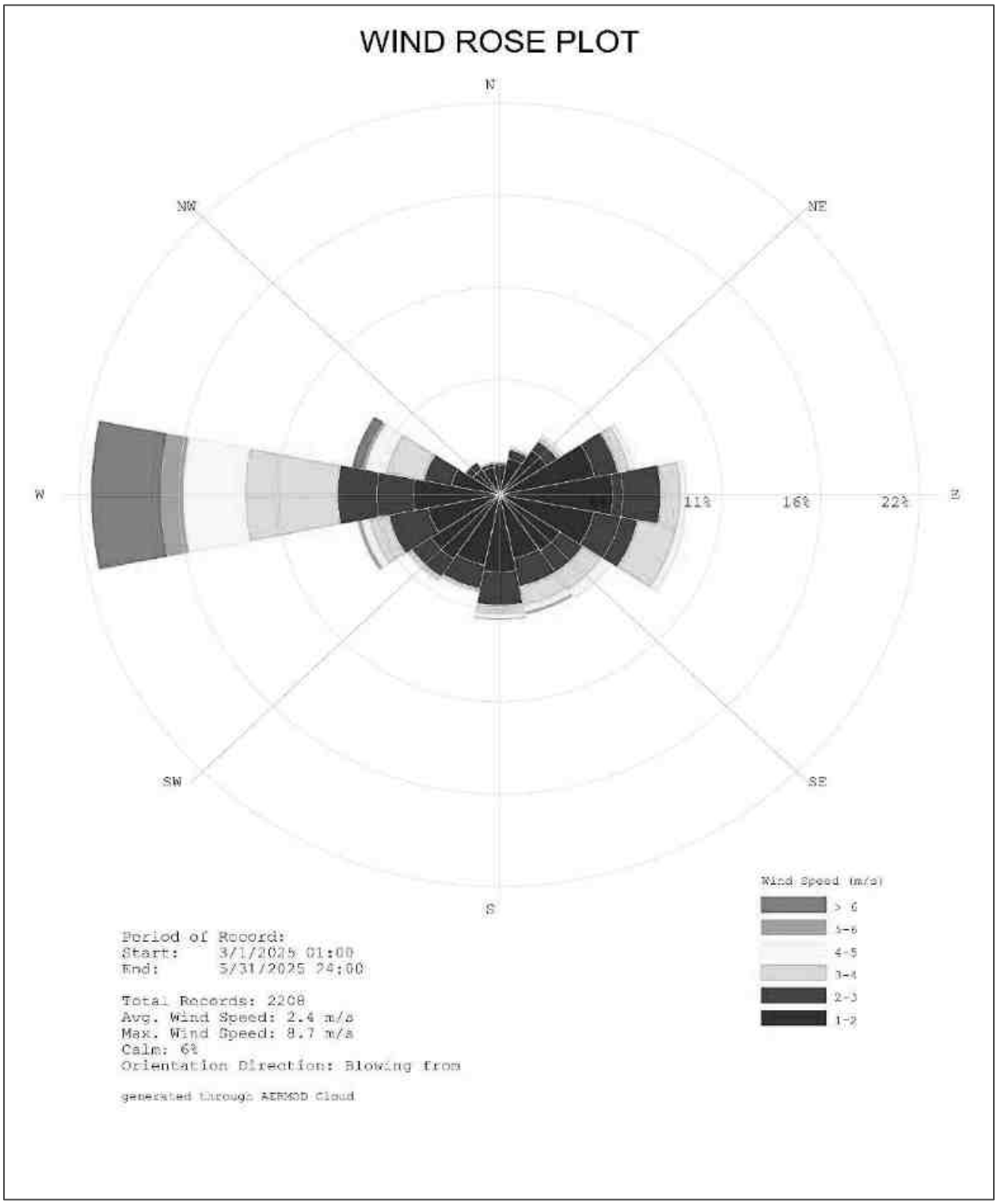


FIG 3.6 WIND ROSE PLOT DURING MARCH TO MAY 2025

Meteorological data of the project area

The meteorological data collected in the study area from March 2025 to May 2025 which includes Temperature, Wind speed, Wind direction and Relative humidity. The predominant wind blows from West. The temperature of the area is reported to be 24.4°C and 27.1°C during summer.

Table 3.3 Meteorological Data Recorded at Site

S.NO	Parameters		March to May 2025
1.	Temperature (^{0}C)	Min	13.5
		Max.	38.7
		Avg	26.0
2.	Relative Humidity (%)	Min	59
		Max	82
		Avg	71
3.	Wind Speed (m/s)	Min	0
		Max	8.7
		Avg	2.4
4.	Wind Direction	Blowing From – W Blowing Towards - E	

3.3.2 AMBIENT AIR MONITORING DATA

Ambient air quality monitoring has been carried out in 7 locations. One in the core zone and remaining six locations in the buffer zone areas. Monitoring locations have been chosen such that the measurement represents the overall air condition prevailing in the area. The study area represents mostly rural environment with stone mining quarries & crushers.

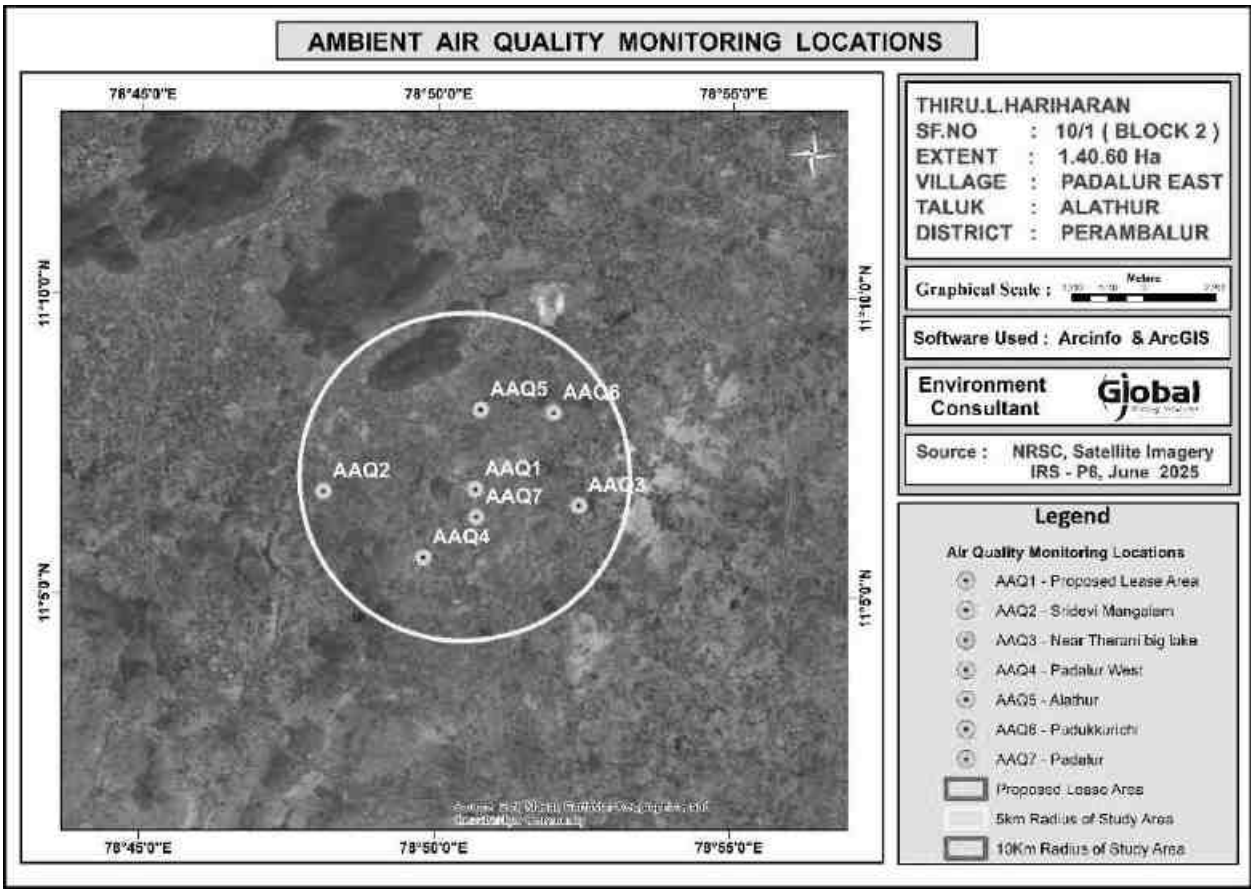
The regional climatologically data, was used as a guideline to know the predominant wind direction during study period. The locations were identified keeping in view predominant wind directions prevailing during study period, sensitive receptors, human settlements, and mining activities around.

The levels of Respirable Particulate Matter (PM10), Fine Particulates (PM2.5), Sulphur Dioxide (SO2) and Oxides of Nitrogen (NOx) were monitored for establishing the baseline status. PM10 were sampled with the help of Respirable Dust Samplers on filter papers and SO2 & NOx were absorbed in the respective absorption media in the impingers attached to RD samplers and analyzed Spectro-photometrically. PM2.5 was monitored with the help of Fine Particulate Samplers. The monitoring locations for ambient air study are given in Table – 3.4 and Figure 3.7 below.

Table 3.4: Ambient Air Quality Monitoring Locations

S. No.	Station Code	Locations	Coordinates
1	AAQ 1	Within Mine Lease area	11° 6'59.28"N & 78°50'28.84"E
2	AAQ 2	Sridevi Mangalam	11° 6'45.19"N & 78°48'6.12"E
3	AAQ 3	Near Therani big lake	11° 6'47.20"N & 78°52'9.17"E
4	AAQ 4	Padalur West	11° 5'41.47"N & 78°49'45.65"E
5	AAQ 5	Alathur	11° 7'36.71"N & 78°50'15.75"E
6	AAQ6	Pudhukkurichi	11° 8'5.47"N & 78°51'53.17"E
7	AAQ7	Padalur	11° 6'17.30"N & 78°50'41.19"E

FIG 3.7 BASE MAP OF AMBIENT AIR MONITORING LOCATIONS



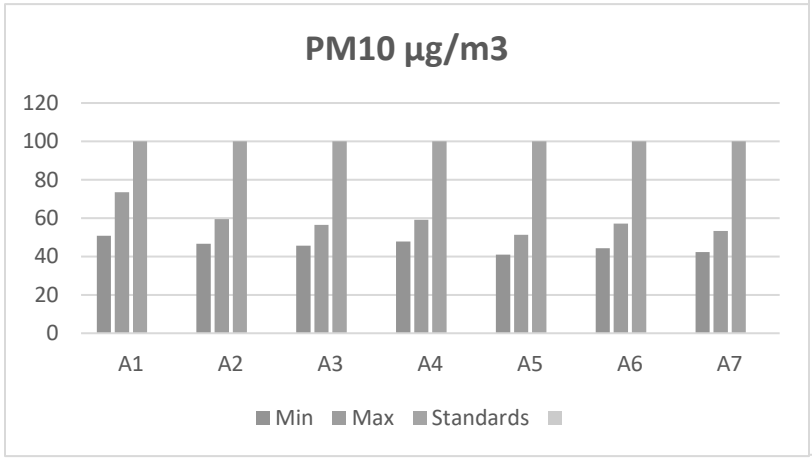
The concentrations of various air pollutants at the 7 locations are given below. For all the components in the table, the unit are in µg/m^3.

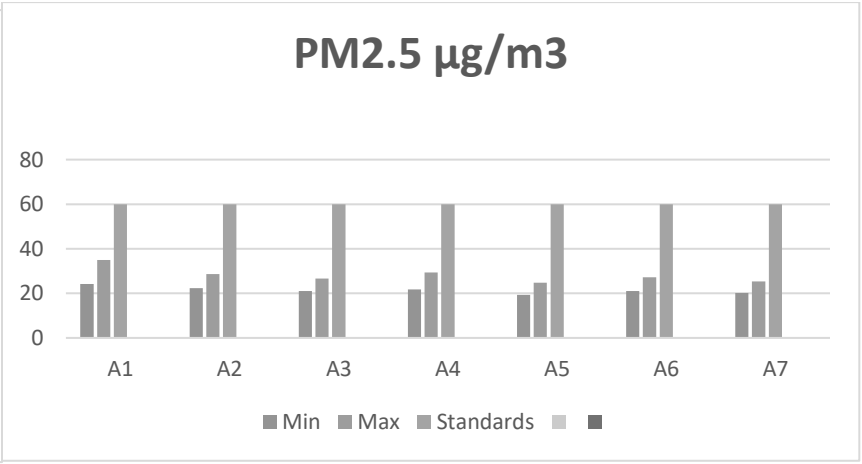
Table.3.5 Results of Air sampling Analysis

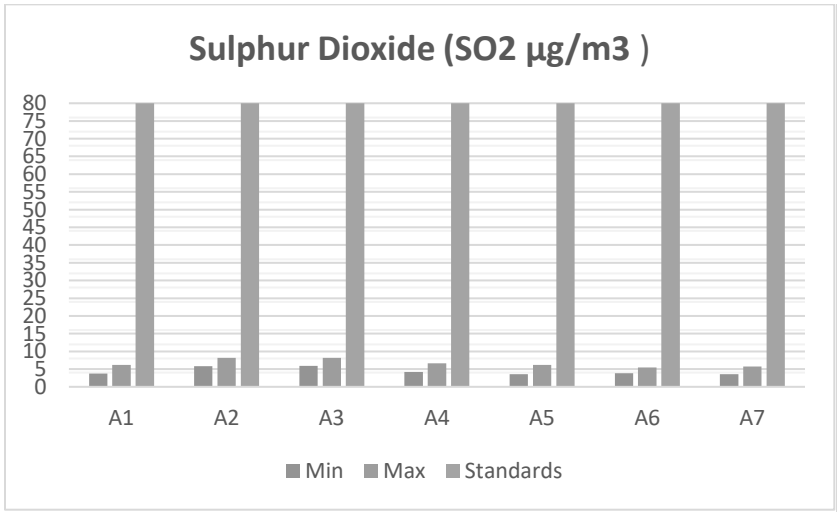
Station ID	Location	Min	Max	Avg.
Particulate matter PM-$_{2.5}$ (µg/m^3)				
AAQ-1	Within Mine	24.2	35.0	29.75
AAQ-2	Sridevi	22.40	28.60	25.63
AAQ-3	Near Therani	21.0	26.70	23.39
AAQ-4	Padalur West	21.80	29.40	25.32
AAQ-5	Alathur	19.30	24.70	21.97
AAQ-6	Pudhukkurichi	21.02	27.14	23.74
AAQ-7	Padalur	20.15	25.39	22.41
CPCB NAAQS 2009 for PM $_{2.5}$ - 60 µg/m^3				
Particulate matter PM-$_{10}$ (µg/m^3)				

AAQ-1	Within Mine	50.90	73.50	62.50
AAQ-2	Sridevi	46.70	59.50	53.44
AAQ-3	Near Therani	45.70	56.50	49.82
AAQ-4	Padalur West	47.80	59.10	53.36
AAQ-5	Alathur	41.0	51.30	45.65
AAQ-6	Pudhukkurichi	44.30	57.20	50.02
AAQ-7	Padalur	42.30	53.30	47.03
	CPCB NAAQS 2009 for PM_{10} - 100 µg/m^3			
	Sulphur Di-oxide as SO_2 (µg/m^3)			
AAQ-1	Within Mine	3.70	6.20	4.93
AAQ-2	Sridevi	5.80	8.20	6.98
AAQ-3	Near Therani	5.90	8.20	7.05
AAQ-4	Padalur West	4.20	6.60	5.36
AAQ-5	Alathur	3.60	6.20	4.92
AAQ-6	Pudhukkurichi	3.80	5.50	4.80
AAQ-7	Padalur	3.60	5.70	4.64
	CPCB NAAQS 2009 for SO_2 – 80 µg/m^3			
	Oxide of Nitrogen as NO_2 (µg/m^3)			
AAQ-1	Within Mine	10.70	12.90	11.86
AAQ-2	Sridevi	8.90	11.0	9.96
AAQ-3	Near Therani	9.20	11.80	10.48
AAQ-4	Padalur West	8.60	10.90	9.76
AAQ-5	Alathur	7.80	10.10	8.95
AAQ-6	Pudhukkurichi	6.20	8.50	7.34
AAQ-7	Padalur	6.90	9.20	8.06
	CPCB NAAQS 2009 for NO_2 – 80 µg/m^3			

The results are summarized in graph and given as below Figures.







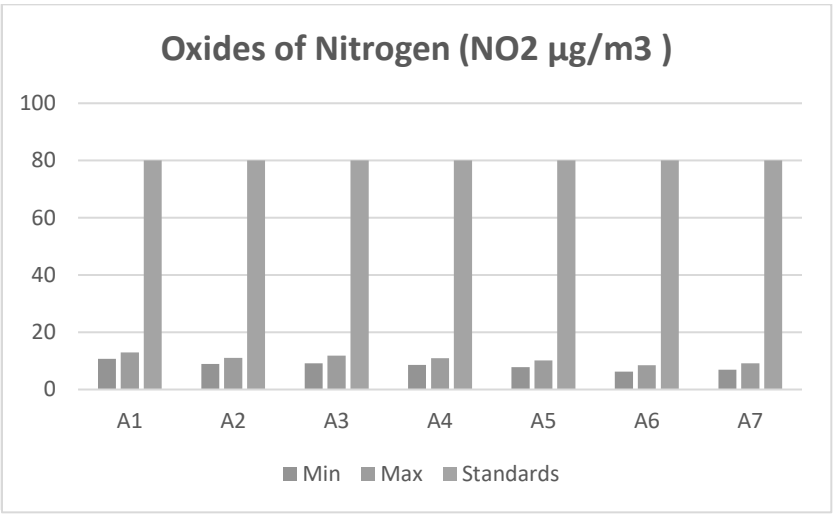


FIG 3.8 GRAPHICAL REPRESENTATION OF AIR QUALITY DATA

Discussion

From the table it is seen that, in core zone, the PM10 values were in the range of 50.90 – 73.50 µg/m3. PM2.5 values in the range of 24.20 – 35.00 µg/m3. SO2 levels were ranging from 3.70 – 6.20 µg/m3 and NO2 levels were ranging from 10.70 – 12.90 µg/m3. In buffer zone, the PM10 values were in the range of 41.00 – 59.50 µg/m3. PM2.5 values were in the range of 19.30 – 29.40 µg/m3. SO2 levels were ranging from 3.60 – 8.20 µg/m3. NO2 levels were ranging from 6.20 – 11.80 µg/m3. While comparing with the NAAQ Norms laid by MoEF, all monitored values of PM10, PM2.5, SO2, NO2 & CO were found to be well within the prescribed standards. The CO values in the all locations found to be below detectable limit (DL – 1144 µg/m3). The maximum value of all four parameters is observed in the mine lease area. The main contributing factor is the presence of another existing crusher unit located adjacent to the project site.

3.3.3 WATER ENVIRONMENT

Assessment of baseline data on water environment includes:

- Identification of water resources
- Collection of water samples
- Analyzing water samples collected for physico-chemical parameters as per standards.

Surface Water

Major water bodies in buffer are given below.

Tank- 320m(S), Tank – 620m (SE), Maruthadi Eri-1.35Km(SW), Therani Big Lake-4.16Km(SE), Nanthai River – 4.3 km (S)

Ground Water

More or less 75% of Perambalur district is covered by Sedimentary formations like upper Gondwana, Cretaceous, Tertiary and Alluvial Deposits. The thickness of aquifer in this district various from 15.00 to 35.00m BGL. In gneissic formations, deep weathering has developed and moderate weathering in Charnockite formations.

In Perambalur District, during the pre-monsoon, the water level generally in declining trend ranges from G.L. to 15m. The depth of well below Ground Level 12.0m are become dry during hot season like May, June, July. In the post monsoon, the water level generally in upward trend due to rainfall and it may reach the Ground Level also.

Sampling Locations

Three (3) surface water samples and Sevan (7) ground water samples were collected from the study area and were analysed for physio-chemical, heavy metals and bacteriological parameters in order to assess the effect of mining and other activities on water bodies. The samples were analysed as per the procedures specified by CPCB, IS-10500:2012. The water sampling locations are given in Table 3.6 and shown as Figure 3.9 & 3.10.

The monitoring locations were selected based on:

- Location of the major water bodies
- Location of project site,
- Likely areas that can represent baseline conditions

Water bodies nearby

Table 3.6 Water Sampling Locations

S.NO	Location Code	Monitoring Locations	Latitude and longitude
Surface Water			
1	SW1	Nattaramangalam Eri	11° 6'56.20"N & 78°49'42.63"E
2	SW2	Nanthai River (up Stream)	11° 5'2.72"N & 78°49'37.01"E
3	SW3	Nanthai River (Down Stream)	11° 4'40.43"N & 78°50'36.17"E
1	GW1	Within Mine Lease area	11° 6'59.28"N & 78°50'28.84"E
2	GW2	Sridevi Mangalam	11° 6'45.19"N & 78°48'6.12"E

3	GW3	Near Therani big lake	11° 6'47.20"N & 78°52'9.17"E
4	GW4	Padalur West	11° 5'41.47"N & 78°49'45.65"E
5	GW5	Alathur	11° 7'36.71"N & 78°50'15.75"E
6	GW6	Pudhukkurichi	11° 8'5.47"N & 78°51'53.17"E
7	GW7	Padalur	11° 6'17.30"N & 78°50'41.19"E

FIG 3.9 BASE MAP OF GROUND WATER SAMPLING LOCATIONS

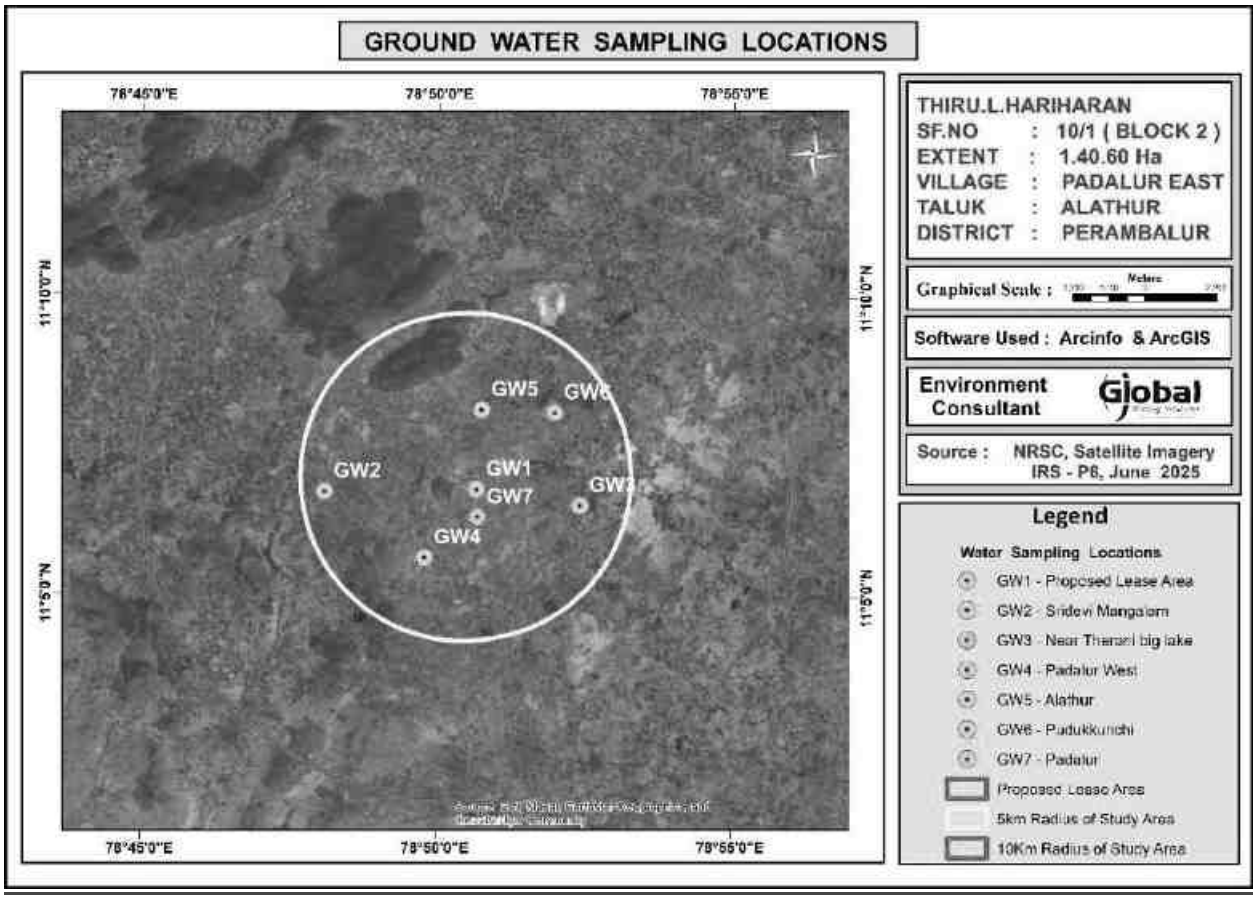


FIG 3.10 BASE MAP OF SURFACE WATER SAMPLING LOCATIONS

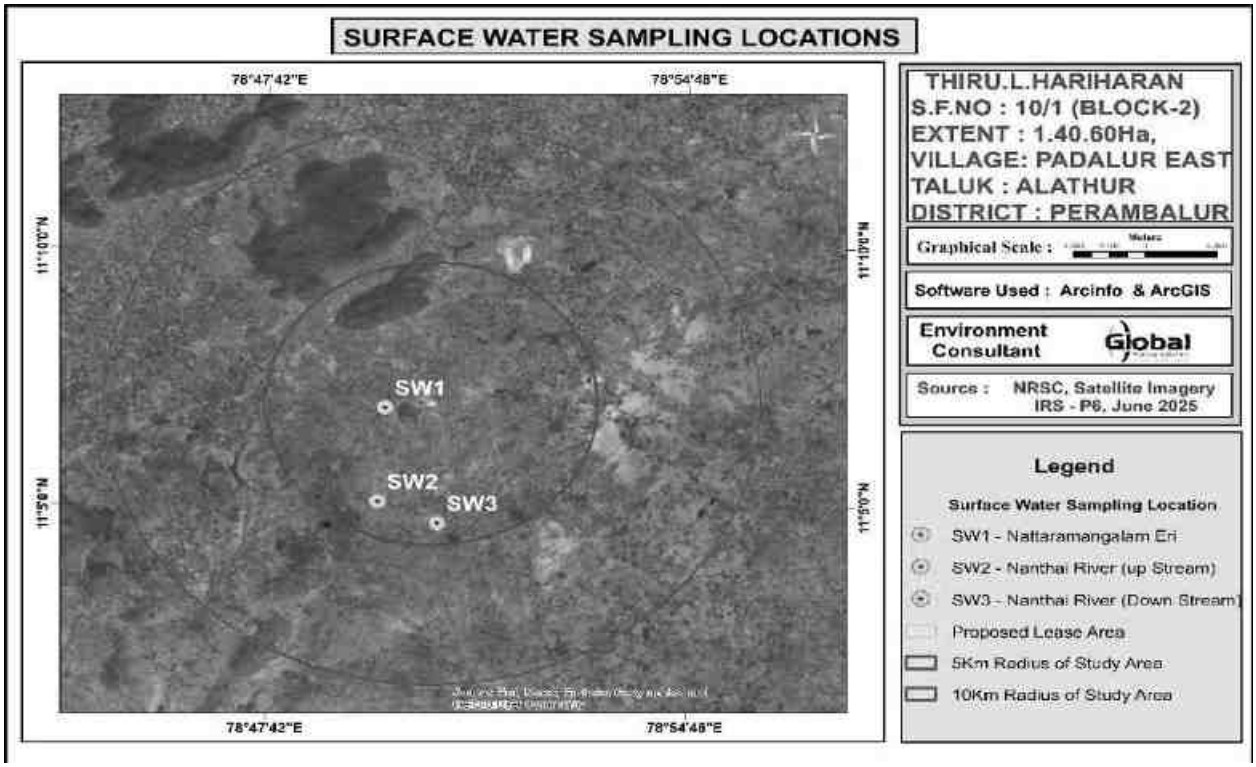


Table 3.7 Surface Water Analysis Results

Sr.No	Parameter	Unit	SW1	SW2	SW3	Surface water standard s (IS 2296 Class-A)
1	Odour	-	Agreeable	Agreeable	Agreeable	-
2	Turbidity	NTU	<1	<1.0	<1.0	1
3	pH at 25 ˚C	-	7.52	7.94	7.85	6.5-8.5
4	Electrical Conductivity	µs/cm	218.6	167.9	192.3	-
5	Total Dissolved Solids	mg/l	132	102	115	500
6	Total hardness as CaCO3	mg/l	47.2	35.2	42.5	300
7	Calcium as Ca	mg/l	10.56	10.36	9.8	80.10
8	Magnesium as Mg	mg/l	4.99	2.23	4.3	24.28
9	Calcium as CaCO3	mg/l	26.4	25.9	24.5	-
10	Magnesium as CaCO3	mg/l	20.8	9.30	18.0	-
11	Total alkalinity as CaCO3	mg/l	45.6	37.2	42.2	-
12	Chloride as Cl-	mg/l	42.8	40.8	39.8	250
13	Free Residual chlorine as Cl-	mg/l	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	0.20
14	Sulphates as SO42-	mg/l	15.2	16.9	16.1	400
15	Iron as Fe	mg/l	0.15	0.12	0.1	0.3
16	Nitrate as NO3	mg/l	BDL(D.L-1.0)	2.14	1.95	20
17	Fluoride as F	mg/l	0.21	0.45	0.42	1.5
18	Manganese as Mn	mg/l	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	0.1
19	COD	mg/l	BDL(D.L-4.0)	BDL(D.L-4.0)	BDL(D.L-4.0)	-
20	BOD	mg/l	BDL(D.L-2.0)	BDL(D.L-2.0)	BDL(D.L-2.0)	2.0
21	TSS	mg/l	22.0	12.0	10.0	-
22	DO	Mg/l	5.8	6.1	6.3	6.0

The samples were analyzed by Shrient Analytical & Research Labs Private Limited; Chennai and the results are summarized below.

Table 3.8 Ground Water Analysis Results								Standards as Per IS 10500: 2012	
	W1	W2	W3	W4	W5	W6	W7	Acceptable Limits	Permissible Limits
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1.0	<1.0	<1	<1	<1	<1	<1	<5.0
pH at 25 °C	7.75	7.84	7.19	7.91	7.45	7.77	7.36	6.5- 8.5	No Relaxation
Electrical Conductivity	504.8	1665	1975.0	2068.0	1286.0	1989.0	2137.0	-	-
Total Dissolved Solids	302	1002	1186	1240	772	1194	1282	500	2000
Total hardness as CaCO3	159	354	392	424	235	385	454	200	600
Calcium as Ca	40.4	64.4	84	96.8	57.6	83.2	102	75	200
Magnesium as Mg	13.9	46.3	43.7	43.7	21.8	42.5	47.5	30.0	100
Calcium as CaCO3	101	161	210	242	144	208	256	-	-
Magnesium as CaCO3	58.0	193	182	182	91.0	177	198	-	-
Total alkalinity as CaCO3	145	327	380	399	260	376	392	200	600
Chloride as Cl-	65.6	342	365	380	241	363	510	250	1000
Free Residual chlorine as Cl-	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	0.2	1
Sulphates as SO42-	42.5	270	342	355	206	338	212	200	400
Iron as Fe	0.06	0.12	0.11	0.12	0.04	BDL(D.L-0.01)	0.03	0.3	No Relaxation
Nitrate as NO3	BDL(D.L-1.0)	2.14	4.65	5.23	4.32	5.62	5.51	45	No Relaxation
Fluoride as F	0.14	0.48	0.55	0.62	0.42	0.63	0.58	1	1.5
Manganese as Mn	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	0.1	0.3

Some of the common parameters including EC, TDS, Total Hardness, Total Alkalinity, Chlorides and Sulphates in the 7 locations were plotted and the graph is provided below.

FIG 3.11 GRAPHICAL REPRESENTATION OF GROUND WATER ANALYSIS

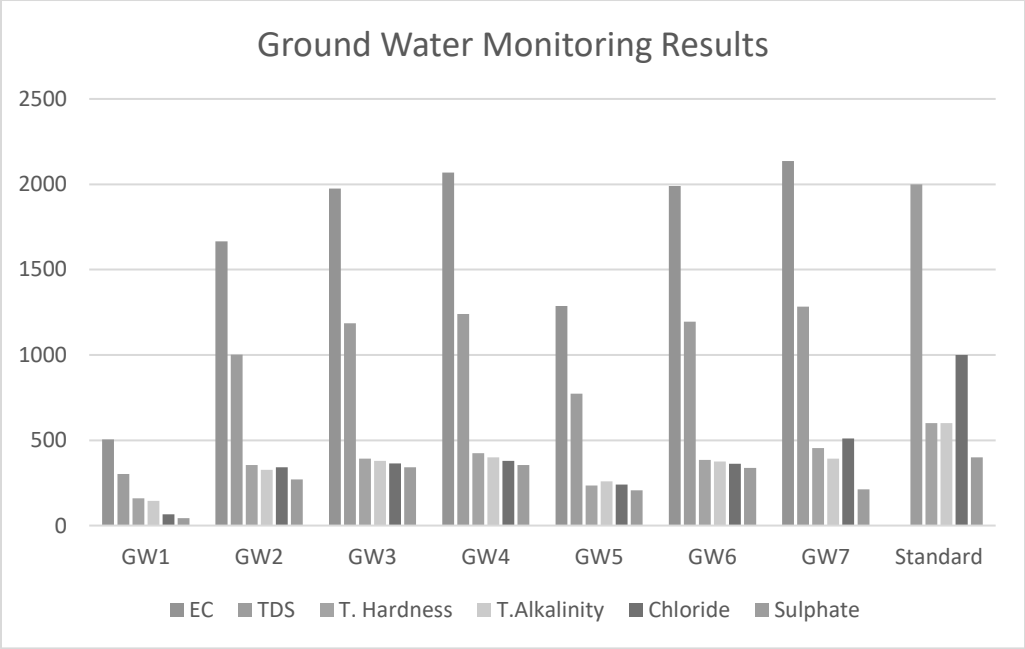
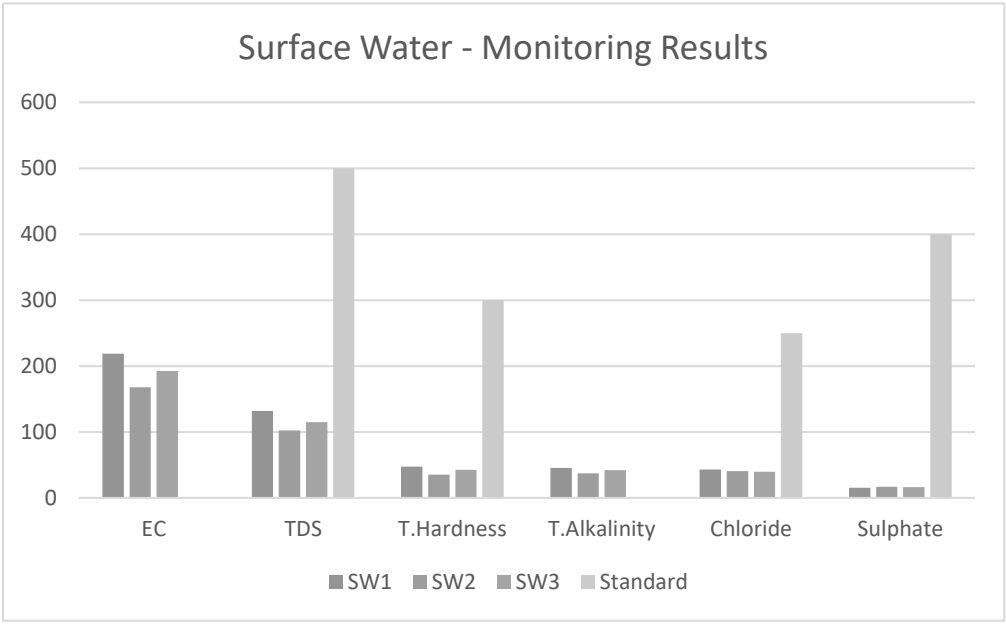


FIG 3.12 GRAPHICAL REPRESENTATION OF SURFACE WATER ANALYSIS



Discussion

Surface Water

The pH varied from 7.52 to 7.94 while turbidity found to be less than 1, which is within the permissible limit of 5.0. Total Dissolved Solids varied from 102 to 132 mg/l. Chloride varied between 39.8 mg/l, 42.8 mg/l and 42.8 mg/l. Nitrates varied from 1.95 to 2.14 mg/l, while sulphates varied from 15.2 to 16.9 mg/l.

Ground Water

Suitability of ground water for drinking/irrigation/industrial purposes is determined keeping in view the effects of various chemical constituents present in water as required human use, plant use. Though many ions are very essential for the growth of plants and human body but when present in excess, have an adverse effect on health and growth.

As Per the data it has been observed that the pH value varies from 7.19 – 7.91, Chlorides Ranges From 65.6 - 510 mg/l, Sulphates value found to be between 42.5 – 355 mg/l, Fluoride value varies from 0.14 – 0.63 mg/l, Total Hardness varies from 159 – 454 mg/l, and Total dissolved solid 302 – 1282 mg/l. The ground water has been analyzed as per IS10500: 2012 and found to be suitable for drinking purpose. So the results of chemical and bacteriological analysis of water samples are classified under good class for drinking purpose with respect to total dissolved solids. Total hardness of the samples ranged from soft to moderately hard waters and can be fairly used for drinking. Regular ground water monitoring is suggested as the quality of ground water may fluctuate with groundwater consumption and seasonal variations.

3.3.4 NOISE MONITORING

The vehicular movement on road and mining activities is the major sources of noise in study area, the environmental assessment of noise from the mining activity and vehicular traffic can be undertaken by taking into consideration various factors like potential damage to hearing, physiological responses, and annoyance and general community responses.

Sampling Locations

In order to assess the ambient noise levels within the study area, noise monitoring was carried out at Sevan (7) locations. The noise level of monitoring locations were carried out by covering 10 km radius of the project area. A noise monitoring methodology was chosen such that it best suited the purpose and objectives of the study. The noise monitoring locations are given in Figure 3.13 and in below table.

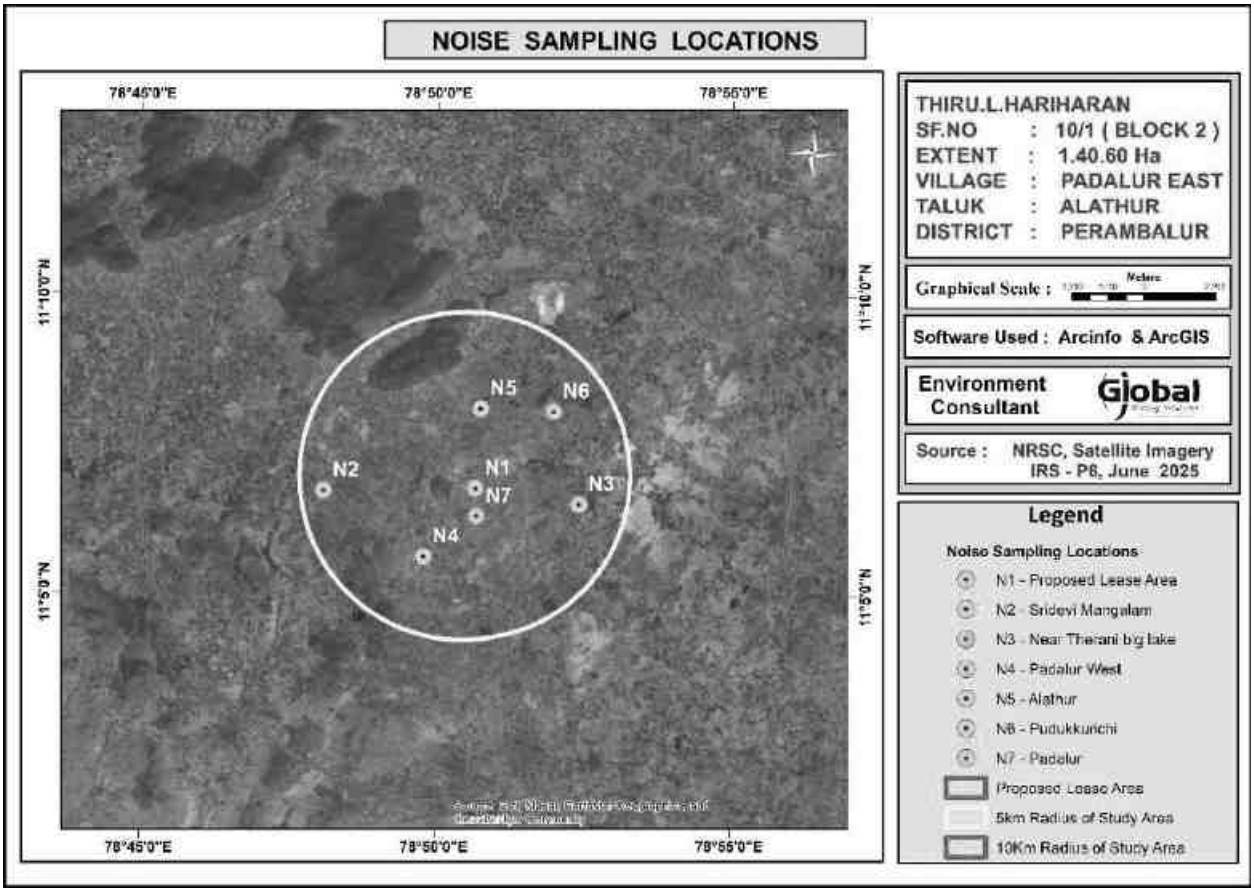
Table 3.9 Noise Monitoring Locations

S.NO	Location Code	Monitoring Locations	Latitude and longitude
1	N1	Within Mine Lease area	11° 6'59.28"N & 78°50'28.84"E
2	N2	Sridevi Mangalam	11° 6'45.19"N & 78°48'6.12"E
3	N3	Near therani big lake	11° 6'47.20"N 78°52'9.17"E
4	N4	Padalur West	11° 5'41.47"N & 78°49'45.65"E
5	N5	Alathur	11° 7'36.71"N & 78°50'15.75"E
6	N6	Pudhukkurichi	11° 8'5.47"N & 78°51'53.17"E
7	N7	Padalur	11° 6'17.30"N & 78°50'41.19"E

Noise level monitoring was calculated using a noise level meter by NABL Accredited lab and the results are summarized below.

The noise monitoring locations are given in Fig 3.13

FIG 3.13 BASE MAP OF NOISE MONITORING LOCATIONS



Method of Monitoring

Noise levels were measured using sound level meter manufactured by (Model No - SL4001, Make - Lutron). Sound Pressure Level (SPL) measurements were measured at all locations where ambient air quality monitored; one reading for every hour was taken for 24 hours.

Noise Monitoring Result

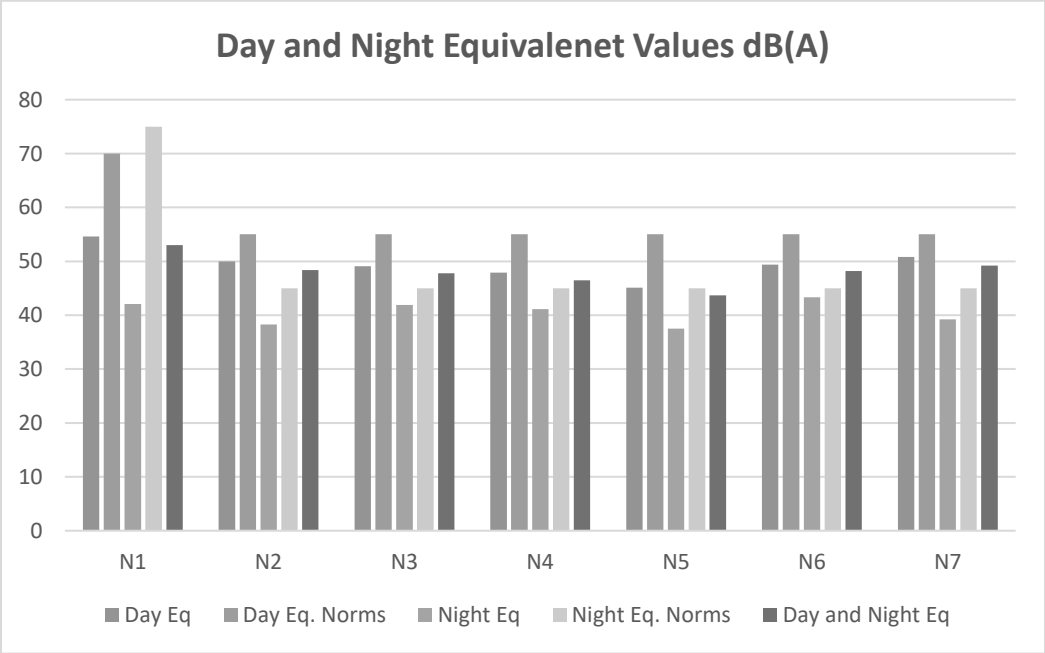
An analysis of the different Leq data obtained during the study period has been made. Variation was noted during the day-time as well as night-time. The results are presented in below Table 3.10.

Table 3.10 Noise Monitoring Result

Monitoring Location	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	54.6	50.0	49.1	47.9	45.1	49.4	50.8
NIGHT EQUIVALENT	42.1	38.3	41.9	41.1	37.5	43.3	39.2
DAY & NIGHT EQUIVALENT	53.0	48.4	47.8	46.5	43.7	48.2	49.2
Limits as per MoEF&CC							
Day equivalent - 50 dB (A); Night equivalent - 40 dB (A); Work zone Exposure in 8 hr - 90 dB (A)							

The results are plotted as below.

FIG 3.14 DAY AND NIGHT EQUIVALENT VALUES IN 7 LOCATIONS



Discussion

From the table it is observed that the day Equivalent Noise (Leq-d) level were ranging from 45.10 to 54.60 dB(A) and Night Equivalent Noise (Leq-n) level were ranging from 37.50 to 43.30 dB(A). Day and Night Equivalent Noise (Leq-n) level were ranging from 43.70 to 53.00 dB (A). While comparing with the MoEF Norm of 55 dB(A) for day time and 45 dB(A) for night time, the monitored ambient noise levels are within the limit values.

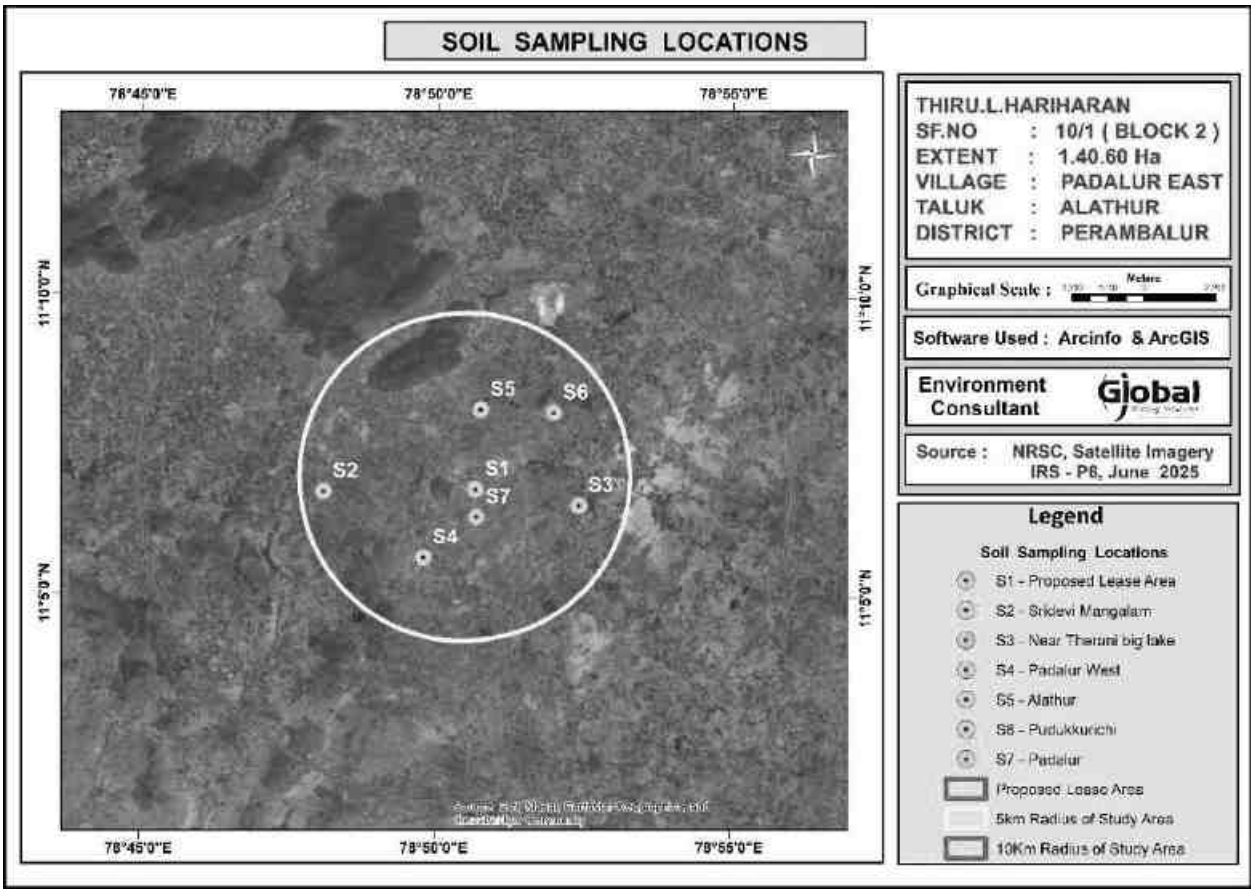
After commencement of mine operation the anticipated noise level will be 42 dB – 60 dB in the N1 location. (Project Site). It is very negligible and within the prescribed standards of MoEF & CC and DGMS.

3.3.5 SOIL SAMPLING ANALYSIS

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 analyzed for different parameters. The locations of the monitoring sites are detailed in Figure 3.15.

Soil samples have been collected from the mine lease area and 6 other locations from Sridevi Mangalam, Near Therani Lake, Padalur West, Alathur, Pudhukkurichi and Padalur Villages. The locations are shown in figure below.

FIG 3.15 BASE MAP OF SOIL SAMPLING LOCATIONS



Methodology

For studying soil quality, sampling locations were selected to assess the existing soil conditions in and around the project site representing various land use conditions. The samples were collected by auger boring into the soil up to 90-cm depth. Seven locations were selected for soil sampling on the basis of soil types, vegetative cover, industrial & residential activities including infrastructure facilities, which would accord an overall idea of the soil characteristics.

Composite grab samples of the topsoil were collected by specified depth, and mixed to provide a representative sample for analysis. They were stored in airtight Polythene bags and analyzed at the laboratory.

The results are summarized in the table below.

Table 3.11 - Soil Testing Result

S.No	Parameter	Unit	S1	S2	S3	S4	S5	S6	S7
1	pH at 25 °C	-	7.21	7.94	8.06	7.95	7.89	8.12	7.92
2	Electrical Conductivity	µmhos/cm	165.6	290.8	220.4	273.5	190.2	295.6	265.7
3	Dry matter content	%	95.67	96.52	97.21	86.54	97.25	93.67	92.58
4	Water Content	%	4.33	3.48	2.79	13.46	2.75	6.33	7.42
5	Organic Matter	%	0.92	0.95	0.82	1.32	0.77	0.95	1.03
6	Soil texture	-	Silty Clay loam	Silty Clay	Silty Clay	Clay	Silty Clay	Silty Clay	Silty Clay
7	Grain Size Distribution i. Sand	%	16.32	10.42	8.55	17.05	13.22	10.79	7.89
8	ii. Silt	%	45.12	44.33	42.75	38.97	42.76	45.66	41.32
9	iii. Clay	%	38.56	45.25	48.7	43.98	44.02	43.55	50.79
10	Phosphorous as P	mg/kg	1.52	1.62	1.24	1.67	1.36	1.61	1.74
11	Sodium as Na	mg/kg	323	322	346	498	535	420	396
12	Potassium as K	mg/kg	596	664	735	904	1030	634	652
13	Nitrogen and Nitregenous Compounds	mg/kg	295	405	146	205	254	312	175
14	Total Sulphur	%	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)
15	Water Holding Cabacity	Inches/foot	38	38	40	41	42	40	42
16	Porosity	%	19.5	19.4	17.9	17.1	18.9	18.2	17.3

Soil Testing Result

Results of the soil samples show that the pH values were found to be 7.21 to 8.12 and Electrical Conductivity values were ranging between 165.6 – 295.6 µmhos/cm. Soils are generally Silt Clay. Organic matter values were ranging between 0.77 – 1.32 %. Total Nitrogen values were ranging between 146 – 405 mg/kg. Phosphorus values were ranging between BDL – 1.24 – 1.74 µg/g. Potassium values were ranging between 596 – 1030 mg/kg. Sodium values were ranging between 322 – 535 mg/kg. The soil quality data for the 7 samples collected and analyzed are provided in Table no – 3.11.

3.3.6 BIOLOGICAL ENVIRONMENT

An ecological survey was conducted to collect the baseline data regarding flora and fauna in the study area of 10 km radius. Data were also collected from different sources, i.e., government departments such as District Forest Office, Government of Tamil Nadu. On the basis of onsite observations as well as forest department records the checklist of flora and fauna was prepared.

Methodology

Sampling locations were selected with reference to topography, land use, vegetation pattern, etc. In this study, quadrats of 25m × 25m were laid down to assess trees and quadrats of 10m × 10m were laid down for shrubs.

Flora

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

- Generate existing data from field observations of various terrestrial floristic occurrences.
- Collect secondary data from Government records as well as through discussion with Forest officials, knowledgeable public etc.,

- Compare the data with authentic past records to identify changes, if any.
- Identify the impact of project operations on the biological aspects.

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

Core Zone

The lease area is a non- forest, private land with scrub and thorny bushes. In the core zone, there are no trees.

Flora in 300 m radius zone

It contains a total of 13 species belonging to 12 families have been recorded from the buffer zone of 300 m radius. Trees 4 (30%), Shrubs 4 (30 %) Herbs 5 (40%) were identified.

Table 3. 12 - Flora in 300 m radius

S.No	Local Name	Scientific Name	Family Name	IUCN Conservation Status
Trees				
1	Kondrai	*Cassia fistula*	Caesalpiniaceae	Not Listed
2	Seetha	*Annona squamosa*	Annonaceae	Not Listed
3	Vembu	*Azadirachta Indica*	Meliaceae	Not Listed
4	Karuvelam	*Vachellia Nilotica*	Fabaceae	Not Listed
Shrubs				
1	Erukku	*Calotropis Gigantea*	Apocynaceae	Not Listed
2	Chundai	*Solanum torvum*	Solanaceae	Not Listed
3	Thuthi	*Abutilon Indicum*	Meliaceae	Not Listed
4	Unnichedi	*Lantana camara*	Verbenaceae	Not Listed
Herbs				
1	Kuppaimeni	*Acalypha indica*	Euphorbiaceae	Not Listed
2	Nelavembu	*Andrographis paniculata*	Acanthaceae	Not Listed
3	Kovakkai	*Trichosanthes Dioica*	Cucurbitaceae	Not Listed
4	Perandai	*Cissus Quadrangularis*	Vitaceae	Not Listed
5	Thumbai	*Leucas Aspera*	Lamiaceae	Not Listed

FLORISTIC SCENARIO IN BUFFER ZONE AREA

Taxonomically a total of 60 species distributed among 46 families have been recorded from the buffer area. Based on habitat classification of the enumerated plants the majority of species were Trees 27 and Shrubs 12 followed by herbs (13), climbers 6. Details of flora with the scientific name were mentioned in Table No. 3.13.

Table 3.13 – List of Flora in Buffer Zone

S.No	Local Name	Scientific Name	Family Name
	Trees		
1	Lemon	*Citrus limon*	Rutaceae
2	Krishna Fig	*Ficus benghalensis*	Moraceae
3	Karuvelam	*Acacia nilotica*	Fabaceae
4	chokla	*Agalaia elaeagnoidea*	Meliaceae
5	Vagai	*Albizia lebbeck*	Caesalpiniaceae
6	Seetha maram	*Annona Squamosa*	Annonaceae
7	kattu elumichai	*Atalantia monophyla*	Rutaceae
8	Vaeppa maram	*Azadirachta indica*	Meliaceae
9	vazhai	*Musa paradisiaca*	Musaceae
10	Guava	*Psidium gujava*	Myrtaceae
11	Karuvali	*Cassine glauca*	Celastraceae
12	Naruvizhi maram	*Cordia monoica*	Boraginaceae
13	Kattunochchi	*Debregaesia velutina*	Urticaceae
14	Neruppu Kondrai	*Delonix regia*	Minosaceae
15	Nagai	*Syzygium cumini*	Myrtaceae
16	mull kalyanamurungai	*Erythrina stricta*	Fabaceae
17	Kallichi	*Ficus microcarpa*	Moraceae
18	atti	*Ficus racemosa*	Moraceae
19	Kattarasu	*Ficus tomentosa*	Moraceae
20	Kambimaram	*Gardenia resinifera*	Rubiaceae

21	Kumalaa maram	*Gmelina arborea*	Verbenaceae
22	Tambachi	*Holoptelea integrifolia*	Ulmaceae
23	Kunnancholai	*Mallotus Philippensis*	Euphorbiaceae
24	Peyimurungai	*Moringa concanensis*	Moringaceae
25	Malaithekku	*Premna tomentosa*	Verbenaceae
26	Peymiratti	*Schefflera stellata*	Araliaceae
27	Thaan-dri kaai	*Terminalia bellirica*	
	Shrubs		
1	Seethaatthazhai	*Acalypha fruiticosa*	Euphorbiaceae
2	peyimarutti	*Anisomeles malabarica*	Lamiaceae
3	Barleria paniculata	*Barleria tomentosa*	Acanthaceae
4	Turatti	*Capparis divaricate*	Capparidaceae
5	Sirukilaa	*Carissa spinarum*	Apocynaceae
6	Kodikalai	*Carmona retusa*	Boraginaceae
7	Virali	*Dodonaea viscosa*	Sapindaceae
8	Manjal Thutthi	*Hibiscus vitifolia*	Malvaceae
9	Karuppu avuri	*Indigofera longiracemosa*	Fabaceae
10	Velimungil	*Justicia betonica*	Acanthaceae
11	Sirunelli	*Phyllanthus polyphyllus*	Euphorbiaceae
12	Ottu Pullu	*Triumfetta pentandra*	Tiliaceae
	Herbes		
1	Kuppaimeni	*Acalypha indica*	Euphorbiaceae
2	perumpeelai	*Aerva persica*	Amaranthaceae
3	Katthaalai	*Aloe vera*	Agavaceae

4	Nilaccurunki	*Biophytum sensitivum*	Oxalidaceae
5	Nattai-churi	*Borreria pusilla*	Rubiaceae
6	Malaiyavarai	*Cassia hirsute*	Caesalpiniaceae
7	Cuvarnaciri Taivelai	*Cleome felina*	Caryophyllaceae
8	korai kizhangu	*Cyperus rotundus*	Cyperaceae
9	Karungurundhu	*Dicliptera cuneata*	Acanthaceae
10	Chinnammanpacharisi	*Euphorbia thymifolia*	Euphorbiaceae
11	Narina	*Indigofera cassioides*	Fabaceae
12	Nai Tulasi	*Ocimum canum*	Lamiaceae
13	Water peper	*Polygonum hydropiper*	Polygonaceae
	Climbers		
1	Mudakathan	*Cardiospermum halicacabum*	Sapin
2	Kattuppirantai	*Cayratia trifoliata*	Vitaceae
3	Pirantai	*Cissus bicolr*	Vitaceae
4	Kovai	*Coccinia indica*	Cucurbitaceae
5	Iviralkovai	*Diplocyclos palmatus*	Cucurbitaceae
6	Adambu	*Ipomoea pescarpae*	Convolvulaceae
	Grasses		
1	bread grass	*Brachiaria remota*	Poaceae
2	feather fingergrass	*Chloris dolichostachya*	Poaceae
3	spear grass	*Heteropogon contortus*	Poaceae

Fauna in the study area

There is no specific Fauna found within ML area. The buffer zone Fauna in the area is studied by direct observation method. Secondary data collected from Forest

department and the same is used in this report. People in the nearby locality were also consulted. The commonly found fauna in the area are given below.

Table 3.14 – Fauna in Study Area

S.No	Common name	Scientific name	Family	IUCN / WPA schedule
MAMMALS				
1	Indian Palm squirrel	Funambulus palmarum	Squirrel	IV
2	Hare	Lepus nigricollis	Leporids	IV
3	House rat	Rattus rattus	Murids	IV
4	Mannuli paambu	Eryxjohni	Boidae	-
5	Indian Grey Mongoose	Herpestes edwardsii	Mongoose	IV
6	Field mouse	Rattus norvegicus	Murids	IV
7	Rusty spotted Cat	Felis rubiginosa	Felidae	IV
REPTILES				
1	Common Garden lizard	Calotes versicolor	Agamid lizards	IV
2	Rough tailed Sand boa	Gongylophis conicus	Boidae	IV
3	Indian Cobra	Naja naja	elapid snakes	II
4	Indian mud turtle	Lissemys punctate	Softshell turtles	IV
5	Common Green Snake	Passerita mycterizaris	Colubrid Snakes	IV
6	Common rat snake	Ptyas mucosus	Colubrid Snakes	II

BIRDS				
1	Grey Partridge	Francolinus pondicerianus	Phasianidae	IV
2	Indian Ring Dove	Streptopelia decaocto	Pigeons and doves	IV
3	Red collared dove	Streptopelia tranquebarica	Pigeons and doves	IV
4	Astur badius	Shikra	Accipitridae	IV
5	Black Drongo	Dicrurus macrocerus	Drongos	IV
6	House Sparrow	Passer domesticus	Sparrow	IV
7	Weaver bird	Ploceus Philippines	Ploceidae	IV
8	Rose Ringed Parakeet	Psittacula krameria	Parrots	IV
9	Little egret	Egretta garzetta	Heron	IV
10	Redvented BulBul	Pycnonotus cafer	Bulbul	IV
FISH				
1	Common carp	Cyprirus earpio	Minnows and Carps	IV
2	Tilapia	Oreochromis mossambicus	Cichlid	IV
3	Carplet	Amblypharyngodon Sp	Cyprinidae	IV
4	Trout	Chela sp	-	IV
5	Punctatus	Ophiocephalus	Snakehead	IV

3.3.7 LAND ENVIRONMENT

The main objective of this section is to provide a baseline status of the study area covering 10km radius around the project periphery; so that temporal changes due to

the mining activities on the surroundings can be assessed in future.

LAND USE PATTERN OF THE PROJECT AREA

The present and the post mining land use pattern is shown below.

Table 3.15 Land use pattern of the project site

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying pit	0.42.20	0.92.50
Infrastructure	Nil	0.01.00
Roads	Nil	0.01.00
Greenbelt	Nil	0.46.10
Unutilized	0.98.40	Nil
Total	**1.40.60**	**1.40.60**

- At the end of life of mine, the excavated mine pit / void of 0.92.50 Ha. Will act as artificial reservoir for collecting rain water and helps to meet out the demand or crises during drought season.
- After mine closure the greenbelt (0.46.10 Ha.) will be developed along the safety barrier and top benches and 0.02 ha are approach road and Infrastructure.

LAND USE PATTERN OF THE STUDY AREA

A visual interpretation technique has been adopted for land use classification based on the keys suggested in the chapter – V of the guidelines issued by NNRMS Bangalore & Level III classification with 1:50,000 scale for the preparation of land use mapping. Land use pattern of the area was studied through LISS III imagery of Bhuvan (ISRO). The 10 km radius map of study area was taken for analysis of Land use cover. The land use map of the study area is given in Figure 3.16.

Table 3.16 Land use pattern of the Study area of 10 km radius

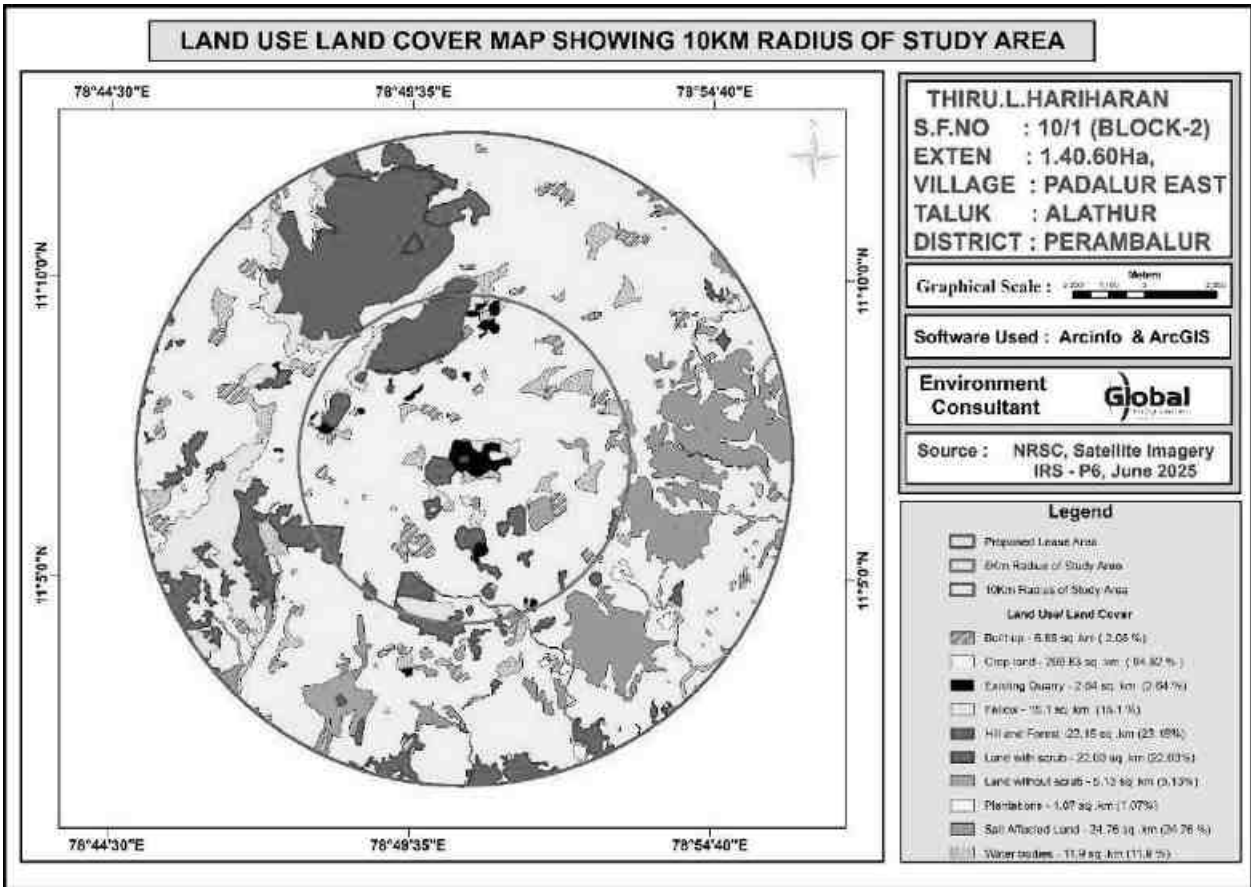
Sl.No.	LAND USE / LAND COVER	Area in Sq.Km	Area in Percentage
1	Built-up land	6.55	2.05
2	Crop land	206.83	64.80

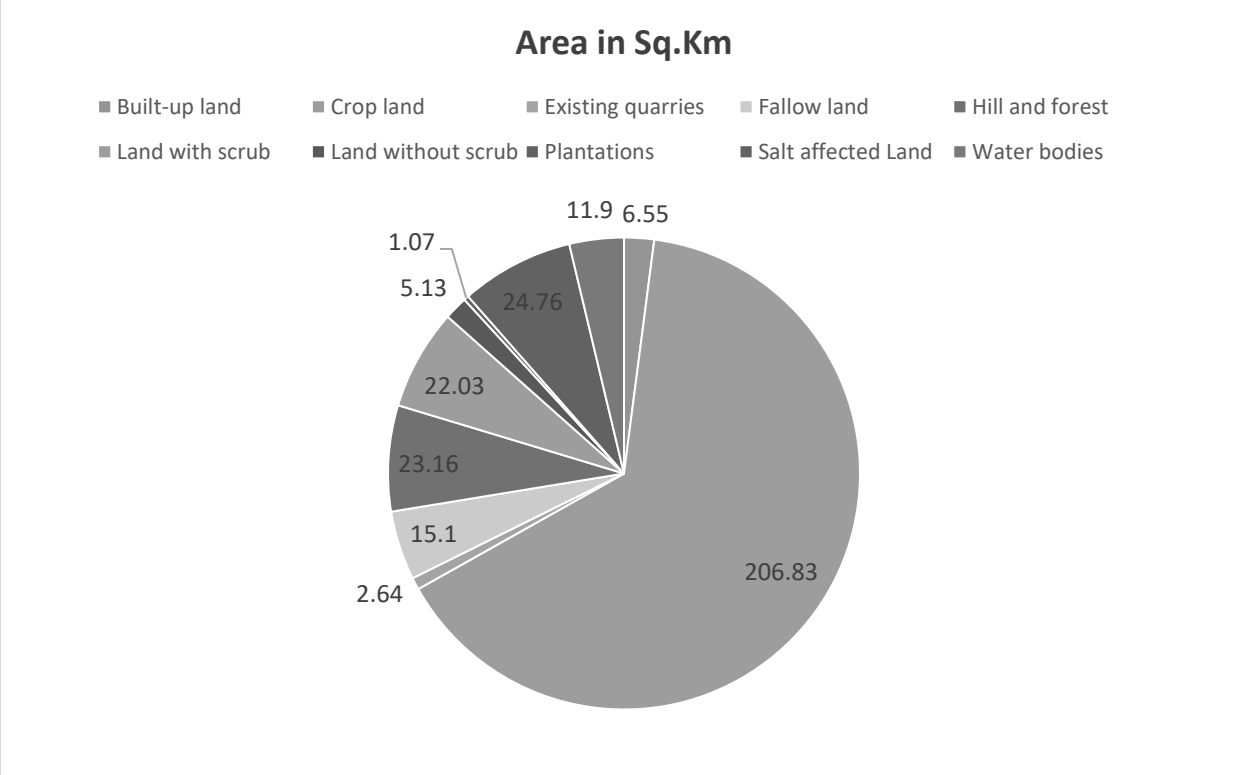
3	Existing quarries	2.64	0.83
4	Fallow land	15.1	4.73
5	Hill and forest	23.16	7.26
6	Land with scrub	22.03	6.90
7	Land without scrub	5.13	1.61
8	Plantations	1.07	0.34
9	Salt affected Land	24.76	7.76
9	Water bodies	11.9	3.73
	Total Area	**319.17**	**100.00**

Source: Survey of India Topo sheet and Landsat Satellite Imagery

From above table it is inferred that the majority of the land in the study area is Crop land (64.80%).

Figure 3.16 Land use map of the study area





3.3.8 SOCIOECONOMIC ENVIRONMENT

The socio-economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used. The following data area collected from secondary data:

- Demographic pattern.
- Health pattern
- Occupational structure.

Objectives of the Study

The objectives of the socio-economic study are as follows:

- To study the socio-economic status of the people living in the study area of the proposed mining project
- To assess the impact of the project on Quality of life of the people in the study area
- To recommend Community Development measures needs to be

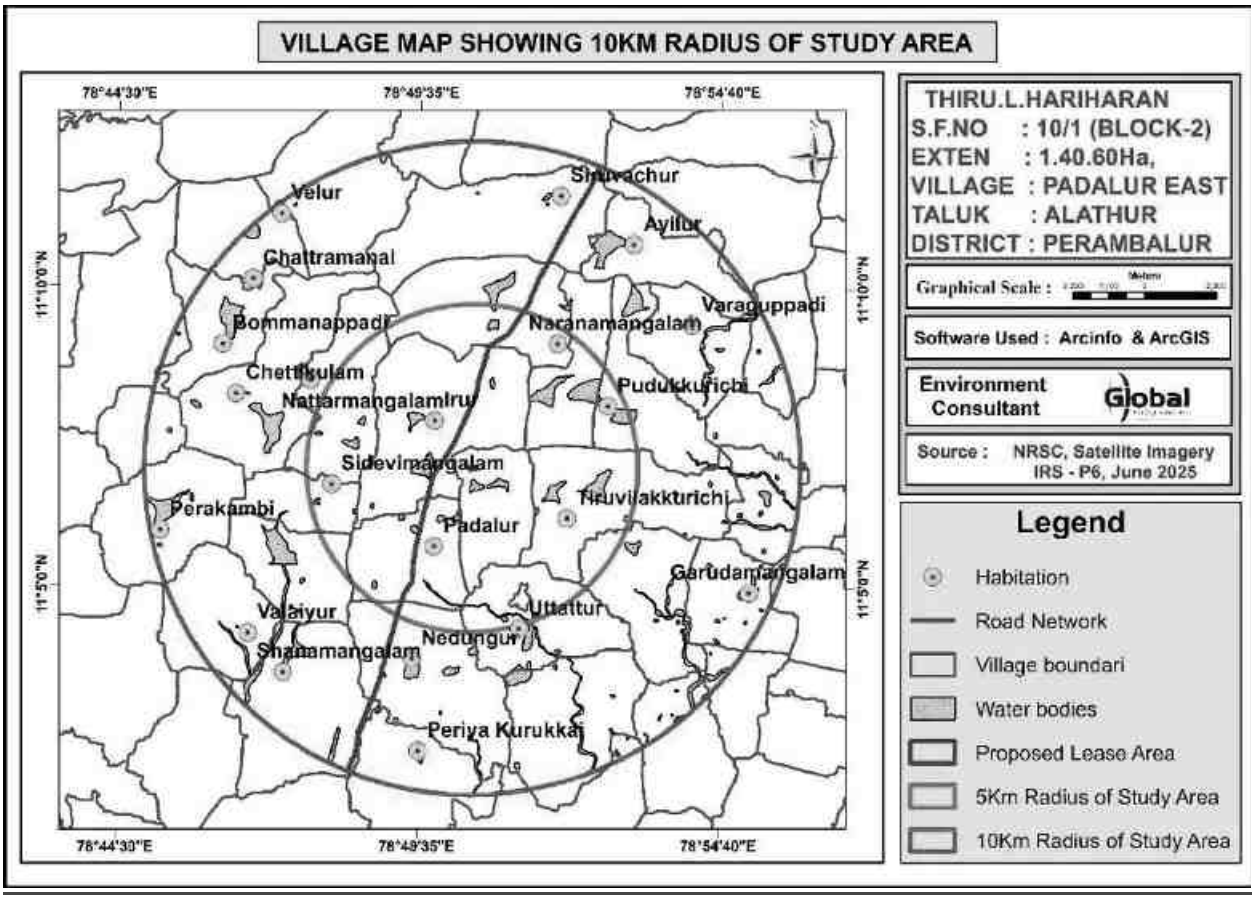
taken up in the study Area.

Scope of Work

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

3.11.1 DETAILS OF VILLAGES

The profile of the villages located in the study area is given in Fig 3.17 below.



44FIG 3.17 VILLAGE MAP OF THE STUDY AREA

DETAILS OF VILLAGES

The project is located in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. According to 2011 census, Perambalur district had a population of 5, 65,223 with a sex-ratio of 1003 females for every 1,000 males, much above the national average of 929. 17.19 % of the population lived in urban areas. A total of 59567 were under the age of six, constituting 2, 82,157 males and 2, 83,006 females.

Basic Amenities

A better network of physical infrastructure facilities (well-built roads, rail links, irrigation, power and telecommunication, information technology, market-network and social infrastructure support, viz. health and education, water and sanitation, veterinary services and co-operative) is essential for development of the rural economy. All basic amenities Education (higher education, colleges, universities, Medical College, Transport facilities, Railway station, Bus station area available.

Table 3.17 - Population profile of the study area

Particulars	No of Population	Percentage (%)
A. Population break-up by Gender		
Male Population	282157	49.92
Female Population	283066	50.08
Total	565223	100
B. Population break-up by Caste		
Scheduled Caste	175289	31.01
Scheduled Tribes	2584	0.46
Others	387350	68.53
Total	565223	100
C. Literacy Level		
Total Literate Population	375823	66.50
Others	189400	33.50
Total	565223	100
D. Occupational structure		
Main workers	155097	27.44
Marginal workers	44629	7.89
Total Workers	199726	35.33
Total Non-workers	165771	29.34
Total	565223	**100**

Table 3.18 Population profile – Padalur East Village

Particulars	No of Population	Percentage (%)
A. Population break-up by Gender		

Male Population	871	52.28
Female Population	795	47.72
Total	**1666**	100
B. Population break-up by Caste		
Scheduled Caste	**193**	11.58
Scheduled Tribes	**0**	0
Others	1473	88.42
Total	1666	100
C. Literacy Level		
Total Literate Population	1210	72.65
Others	456	27.35
Total	1666	100
D. Occupational structure		
Main workers	953	91.8
Marginal workers	84	8.2
Total Workers	1037	62.25
Total Non-workers	629	37.75
Total	**1666**	**100**

The above table shows that the male and female population ratio are almost equal. Among the total population, 0.38 % belong to Scheduled Tribes, 26.63 % are Scheduled Caste and the balance is 72.99 % people belong to other castes. Among the total population, 74.32% of the people are literate. Among the total population, 82.87 % are literate males and 65.90 % are literate females. This shows that the male literates are higher than the female literates. The results are plotted in the figures below.

FIG 3.18 GENDER-WISE POPULATION DISTRIBUTION

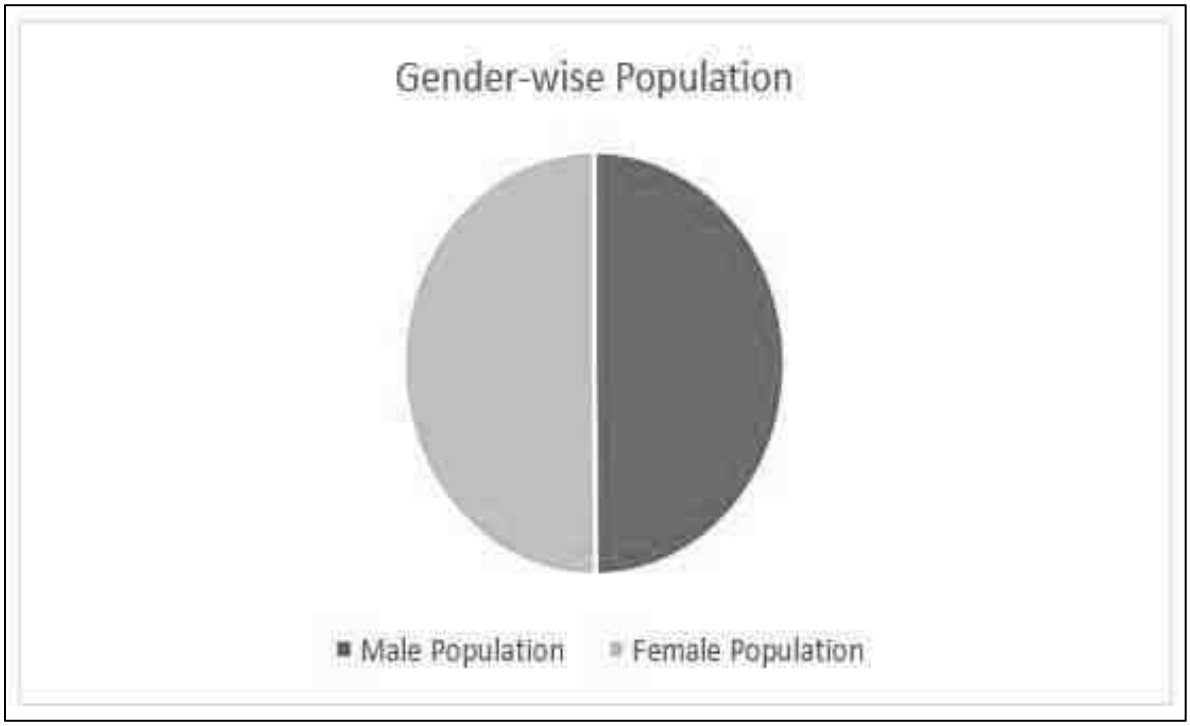


FIG 3.19 GENDER WISE LITERACY DISTRIBUTION

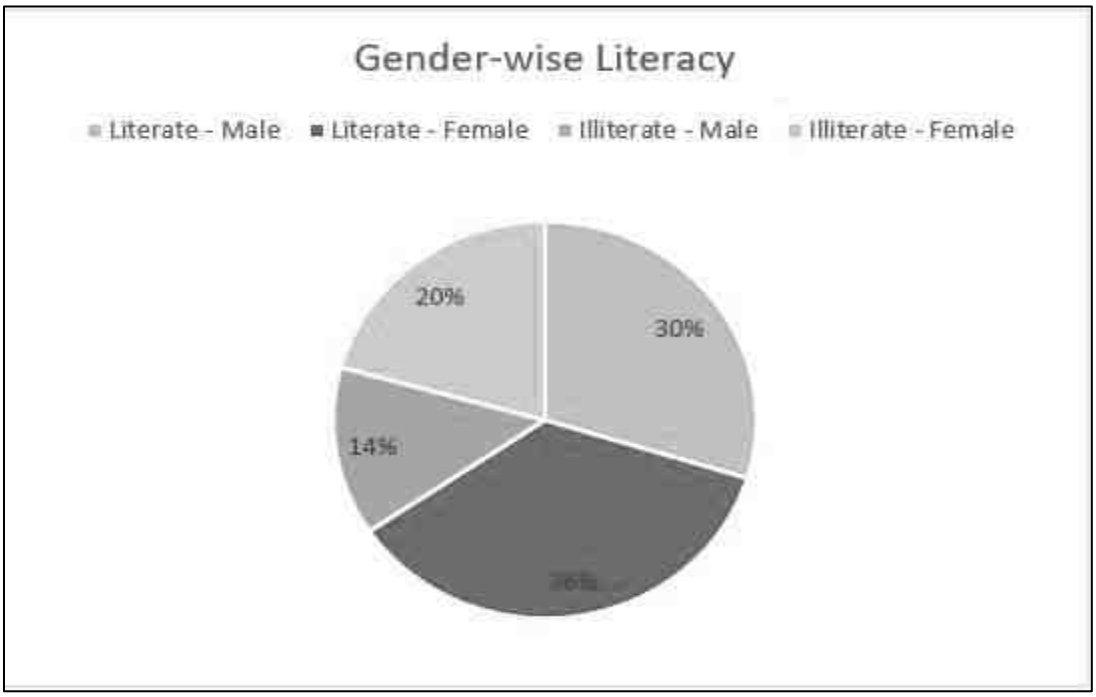
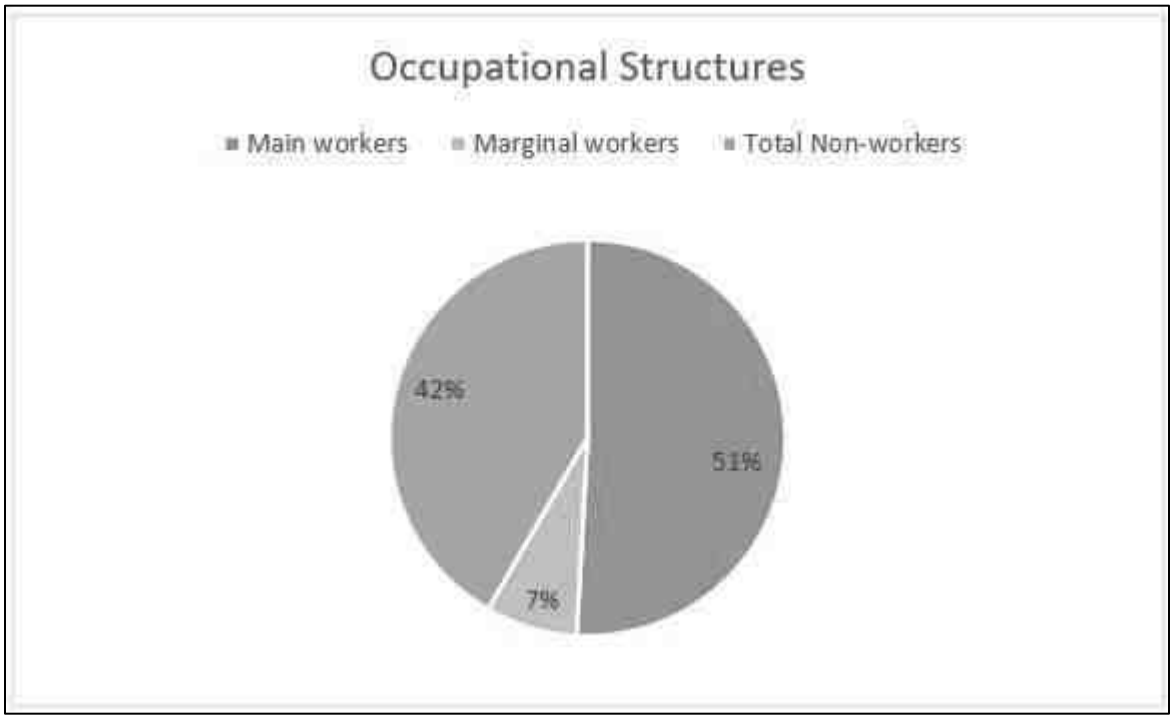


FIG 3.20 OCCUPATIONAL STRUCTURE WITHIN BUFFER ZONE



INFRASTRUCTURE FACILITIES IN THE STUDY AREA

Education

Table 3.19 Educational infrastructure -10 km radius from proposed mine lease

S. No.	Particulars	Available in village (Nos)
1	Govt. Primary School	22
2	Govt. Middle School	12
3	Govt. Secondary School	20
4	Govt. Senior Secondary School	36
5	Govt. Arts and Science Degree College	42
6	Govt. Engineering College	0
7	Govt. Medicine College	0
8	Govt. Management Institute	0
9	Govt. Polytechnic	0
10	Govt. Vocational Training School/ITI	0

In the study area, there are totally 22 Primary Schools functioning in these 24 urban areas. Among them 32 villages have 22 primary school, 12 Middle schools & 20 Secondary school.

Healthcare

In the study area, the following facilities are available.

Table 3.20 Medical Infrastructure-10 km radius from proposed mine lease

S.No.	Particulars	Available in village (Nos)
1	Community Health Centre	9
2	Primary Health Centre	8
3	Primary Health Sub Centre	13
4	Maternity and Child Welfare Centre	8
5	TB Clinic	5
6	Hospital Allopathic	0

Other Infrastructure

The other infrastructure facilities available are given below.

Table 3.21 Other Infrastructure-10 km radius from proposed mine lease

S.No.	Particulars	Available in village
1	Tap Water-Treated	24
2	Covered Well	27
3	Hand Pump	27
4	Tube Wells/Borehole	23
5	Post office	39
6	Public bus services	22
7	Commercial Bank	38
8	Cooperative bank	36

Sample Survey

The expert visited 6 villages in the study area Sridevi Mangalam , Padalur West , Alathur, Pudhukkurichi and Padalur Villages. Discussions were held with the people from nearby locality to study the social and economic conditions prevailing in the area. The expert also visited nearby hospitals, primary health centre. The following observations were made.

Primary schools are available in many villages. For hospital facilities, people in the locality have to go to hospital in Padalur which is within 3 kms from the lease area. Major schools with higher secondary and senior secondary schools are located in Padalur. The major Panchayat Union located in the area is Padalur. Facilities like petrol pump stations, ATM facility are available in Padalur.

3.3.9 HYDROGEOLOGY OF THE STUDY AREA

The following water bodies are located in the buffer zone:
Tank- 320m(S), Tank – 620m (SE), Maruthadi Eri-1.35Km(SW), Therani Big Lake-4.16Km(SE), Nanthai River – 4.3 km (S)
The major aquifer systems in the district are constituted by Basal crystalline rocks consisting mainly of Charnockites, Granites and Gneisses of Archean age and Sedimentary formations range in age from Cretaceous to Recent.

Pre-monsoon water level: The Depth to Water Level during pre-monsoon (May- 2006) ranges from 1.10 to 8.55 m bgl. In major part of the district the depth to water level during pre-monsoon is in the range of >2 – 5 m bgl.

Post-monsoon water level: The Depth to Water Level during post-monsoon (Jan-2007) ranges from 1.10 to 6.78 m bgl. Almost in entire district, depth to water level during post-monsoon is in the range of >2 – 5 m bgl, except some isolated patches.

Long term Fluctuation (1998-2007) indicates rise in water levels is in the range of 0.0027 to 0.16 m/year. The fall in water level ranges between 0.05 and 0.07 m/year.

The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 81m (61m AGL& 20m BGL) and water table is found at a depth of 64

- 67 m BGL. A detailed hydrogeological study will be incorporated in the Final EIA/EMP report.

Topography

The area applied for quarry lease is exhibits almost plain topography covered by Charnockite formation. The massive Charnockite formation is noticed right from the surface and sloping towards southeast side of the area, the altitude of the area is above 185m (maximum) from MSL.

Drainage pattern of the Area

There is Tank situated on southern side and is 320m away from the area. Drainage map given in Figure 3.21.

GEOMORPHOLOGY

Predominantly the buffer zone is dominated by Shallow weathered buried Pediplain, and the lease area falls under Residual Hill category. Geomorphology of the study area is detailed below.

Sl.No.	GEOMORPHOLOGY	Area in Sq.Km	Area in Percentage
1	Moderately weathered buried pediplain	35.36	11.10
2	Pediment – Inselberg Complex	20.69	6.50
3	Pediplain Eroded	60.52	19.00
4	Residual Hills	1.68	0.53
5	Shallow weathered buried Pediplain	178.69	56.10
6	Structural Hills	21.6	6.78
	Total Area	**318.54**	**100.00**

Geology

The regional geology of the study area is shown below in Figure 3.19. The geology map reveals that the area is predominantly covered with Fissile Hornblende Gnesis and the remaining area is covered with Charconite, Clays, gypseous clay, Limestone

with Marl, Sandstone, Shales with Limestone and Shell Limestone. Both Primary data (Local Geology) and Secondary Data (regional Geology) reveals that the area is covered with Hornblende Gnesis and in this way, secondary data is validated with the Primary Data.

Sl.No.	GEOLOGY	Area in Sq. Km	Area in Percentage
1	(Pebbly)sandstone, and clays	3.66	1.15
2	Charnockite	33.64	10.54
3	Clays	4.77	1.49
4	Fissile hornblende gnesis	207.92	65.14
5	Gypseous clays, Limestone	59.29	18.58
6	Sandstone, Shale & White clays	9.04	2.83
7	Shell limestone & Calcareous sandstone	0.86	0.27
	Total Area	**319.18**	**100.00**

Soil texure

The major soil texture found in the buffer zone are Rock land (29.89 %), followed by Clay (26.64 %). The lease area falls under rock land category. The soil texture of the study area is detailed below.

Sl.No.	SOIL TYPE	Area in Sq.Km	Area in Percentage
1	Clay	85	26.64
2	Misc land	81.26	25.46
3	Rock Land	95.38	29.89
4	Sandy Clay Loam	57.47	18.01
	Total	**319.06**	**100.00**

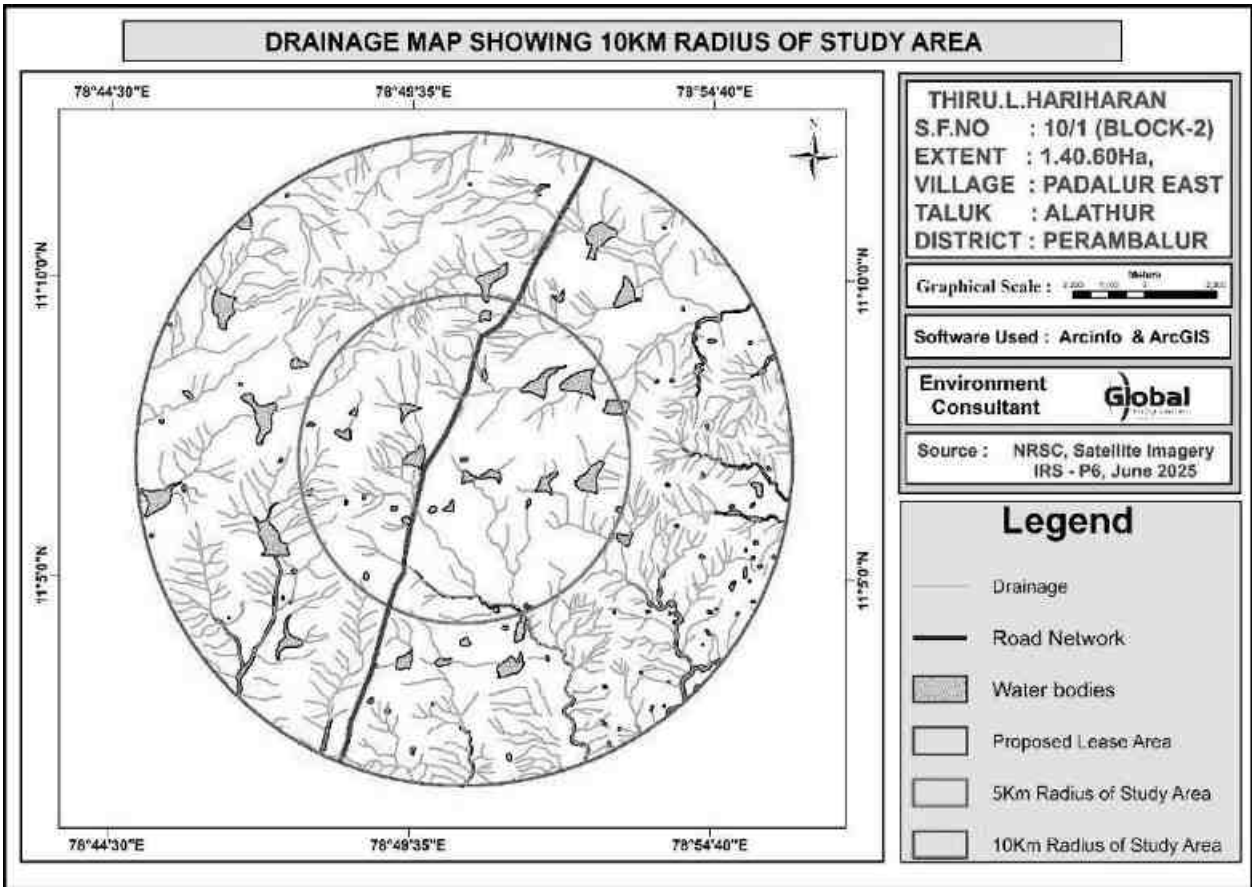


Figure 3.21 Drainage map of the study area

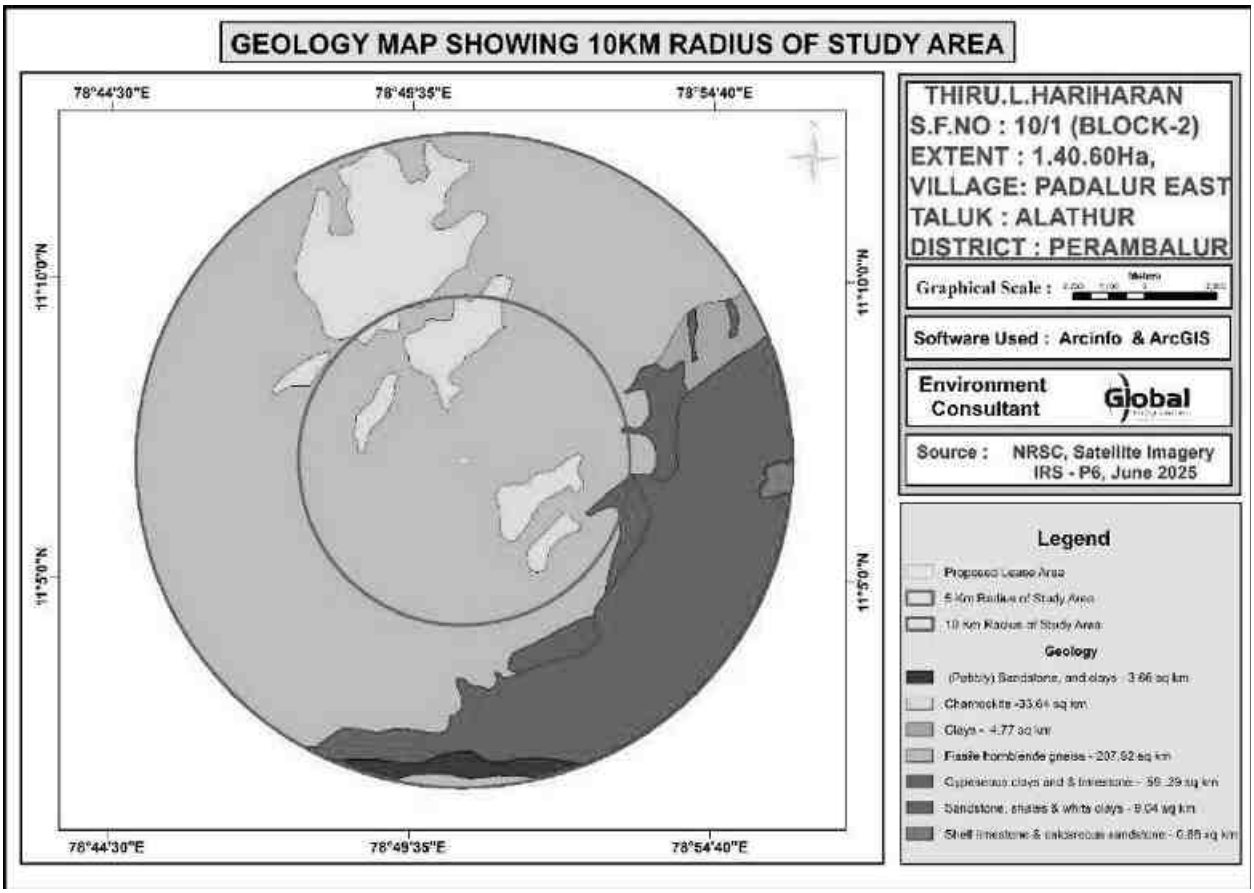


Figure 3.22 Geology map of the study area

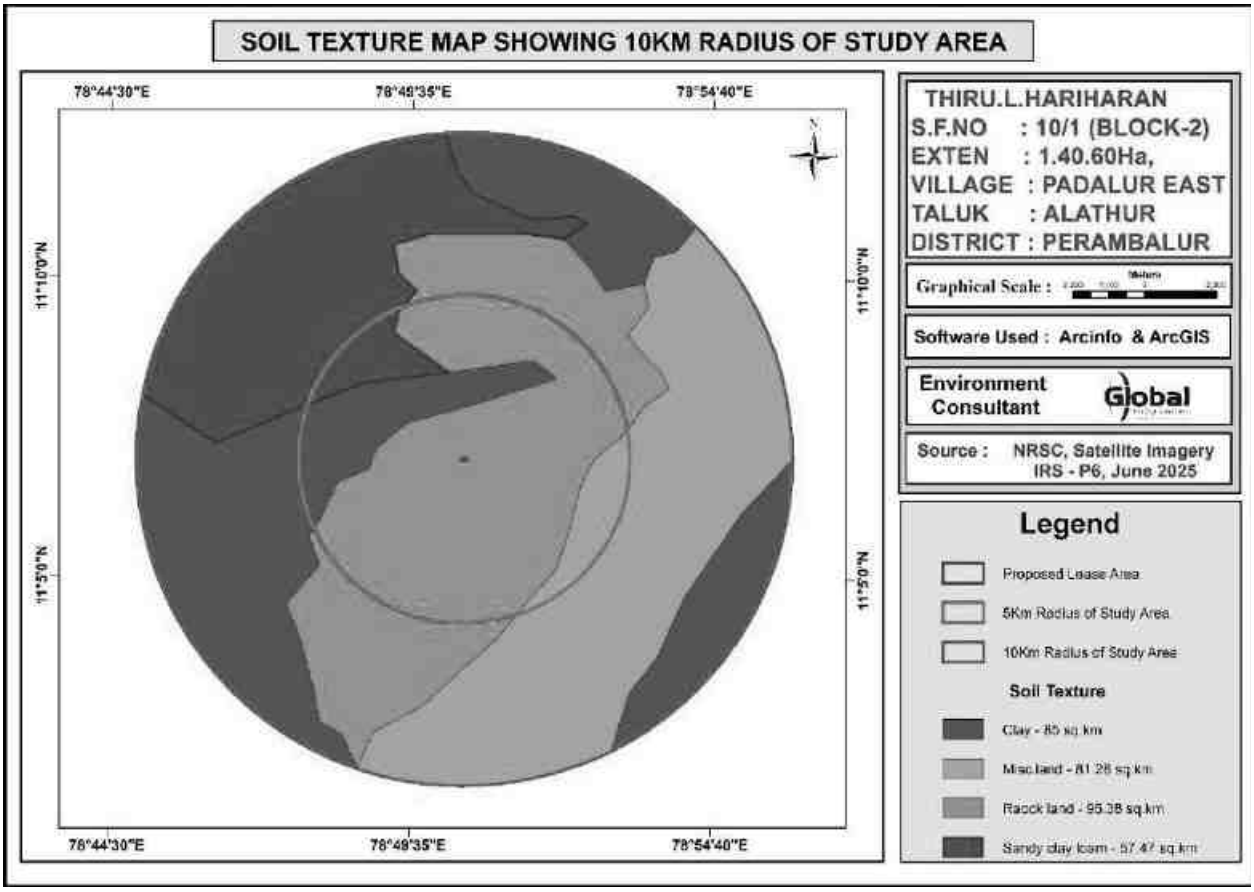


Figure 3.23 – Soil Texture Map of the Study Area

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CHAPTER 4

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

INTRODUCTION

This chapter deals with the various anticipated environmental impacts and mitigation measures of the proposed mining activity. The proposed method of mining is Opencast Mechanized and the quarry operation involves Shallow Jack Hammer Drilling, Blasting, Excavation, Formation of benches, Loading and Transportation of minerals. The above activities may affect the surrounding environment like removal of rock mass, Loss of flora and fauna of the area, surface water discharge, change in air and water quality, etc., If adequate measures are not taken for the proposed operations, it will cause the environmental degradation of the area and it will lead to affect to the ecosystem of the surrounding environment.

In order to maintain the existing environmental scenario of the proposed mine lease area it is mandatorily required to assess the present ecology and environment of the proposed mine lease area and buffer area of the project before starting mining operations. The various environmental impacts which are identified by the proposed quarrying activities have been discussed below and its subsequent paragraphs.

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

4.1 DETAILS OF INVESTIGATED ENVIRONMENTAL IMPACTS DUE TO PROJECT LOCATION POSSIBLE ACCIDENTS, PROJECT DESIGN, PROJECT CONSTRUCTION, REGULAR OPERATIONS FINAL DECOMMISSIONING OR REHABILITATION OF A COMPLETE PROJECT.

This is a proposed Rough Stone Quarry in S.F.No. 10/1(Block-2) over an extent of 1.40.60 Hectares at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. The method of mining is Opencast mechanized with a bench width and height of 5m. It is proposed to excavate to 3,56,042 m^3 of rough stone for 10 years Up to a depth of 81m (61m AGL& 20m BGL). There is no stream/odai within the mine lease area.

The main anticipated impact on the Land Environment due to quarrying operation is change in Landscape, change in Land – use Pattern.

The entire mine lease area is Government Poramboke Land. It is proposed to be altered by effective quarrying operation such as excavation (0.92.50 Ha), Infrastructure (0.01.0), Road (0.01.0 Ha) and green belt will be developed in the safety zone of 0.46.10 Ha. The ultimate depth of quarrying is proposed with maximum depth of 81m (61m AGL& 20m BGL) and will not intersect the ground water table.

4.2 MEASURES FOR MINIMIZING AND /OR OFFSETTING ADVERSE IMPACTS IDENTIFIED

<table>
<tr><th>Aspect</th><th>Impact</th><th>Mitigation measures</th></tr>
<tr><td>Topography</td><td>The area is hilly topography covered by Charnockite formation. Quarrying activity will lead to change in geological setting of the area i.e., Due to the quarrying activity in the mine lease area will leads to affect the aesthetic view on the environment. Further, due to the movement of heavy vehicles in and around the mine lease area will leads to affect the surrounding agricultural lands, ecology and biodiversity, human habitations due to the emissions from vehicles like SO_2, NO_x, PM_{10}, $PM_{2.5}$, etc., The existing land use pattern is given as under.
<table>
<tr><th>Land Use</th><th>Present Area (Hect)</th><th>Area in use during the quarrying period (Hect)</th></tr>
<tr><td>Quarrying Pit</td><td>0.42.20</td><td>0.92.50</td></tr>
<tr><td>Infrastructure</td><td>Nil</td><td>0.01.00</td></tr>
<tr><td>Roads</td><td>Nil</td><td>0.01.00</td></tr>
<tr><td>Green Belt</td><td>Nil</td><td>0.46.10</td></tr>
<tr><td>Unutilized</td><td>0.98.40</td><td>Nil</td></tr>
<tr><td>Total</td><td>1.40.60</td><td>1.40.60</td></tr>
</table></td><td>The major impact due to this project on land environment is the change in land use. Mining activity will be carried out upto a depth of 81m (61m AGL& 20m BGL). At the end of mining period, the quarried pit will act as a water reservoir to store the rain water.
Land Use at the end of mine will be as follows.
<table>
<tr><th>Land Use</th><th>Area in use during the quarrying period (Hect)</th></tr>
<tr><td>Area left for water body</td><td>0.92.50</td></tr>
<tr><td>Green Belt</td><td>0.46.10</td></tr>
<tr><td>Remaining area</td><td>0.02.00</td></tr>
<tr><td>Total</td><td>1.40.60</td></tr>
</table>
At the mine closure stage 0.92.50 Ha of lease area will be left as rain water harvesting pond 0.46.10 Ha will be developed with green belt.

Greenbelt shall be developed around the mine lease area and the details has been given below.
<table>
<tr><th>Year</th><th>Species</th><th>No. of trees</th><th>Spacing</th><th>Survival</th></tr>
<tr><td>I</td><td rowspan="2">Pungai, Vagai,</td><td>460</td><td rowspan="2">3m x 3m</td><td rowspan="2">85%</td></tr>
<tr><td>II</td><td>-</td></tr>
</table></td></tr>
</table>

	The ultimate pit dimension of the mine lease area is given below. **Ultimate Pit dimension at the end of Mining plan Period** **Pit No.** / **Length (max) (m)** / **Width (Avg) (m)** / **Depth (max) (m)** I / 165 / 56 / 81m (61m above ground level and 20m below ground level) If mining is not done systematically it will leads to the dumping failure in the mining area.	III, IV, V — Vembu, Manjal konrai, Naval, Puvarasu, etc — - **Total** **460** Due to the thick vegetation around the mine lease area and sprinkling of water around the haul roads the dust emissions arise from the vehicles will be controlled. At the end of mining period, fencing will be provided around the mine lease area to arrest the entry of public/cattle to the mining area. The rough stone are proposed to quarry 5m bench height and 5m width with 45^0 slope and with conventional opencast Mechanized method. As per the approved mining plan a safety distance of 10 m shall be provided. There is no overburden anticipated during the entire Rough Stone quarrying operation. The excavated rough stone will be directly loaded into tipper to the needy crusher/other buyers.
Drainage	Mine drainage is surface water or groundwater that drains from an active or abandoned mine. One of the adverse impact of mine drainage is it will contaminate the ground water.	As per the approved mining plan the ultimate pit limit is 81m (61m AGL& 20m BGL). The ground water table is reported as 67 m. In the proposed mining plan only 81m (61m AGL& 20m BGL) has been envisaged as workable depth for safe & economic quarrying for the entire lease period. Hence the quarrying operation may not affect the ground water.

Soil Quality and Agriculture	In monsoon seasons due to the excavation of minerals soil erosion and sediment deposition will occur in the nearby water bodies.	It is proposed to quarry upto a depth of 81m (61m AGL& 20m BGL) and the nearby water table is 67 m. So, the mining activity will not affect the ground water. To prevent the soil erosion during monsoon season, garland drain will be constructed with silt traps.
Visual impact on surrounding environment	Quarrying activities and rock extraction generally cause several environmental effects on the surrounding areas. The alteration of landscape due to activities like excavation, drilling or blasting, in particular, often generates a visual impact on the receptors set in the surroundings. Among these effects, the shape, extent, or chromatic contrast of the mining surface with the original land form may represent a huge loss of appeal for the growth of new urban settlements.	The reclamation of the post mined quarry surface is aimed at restoring the ecological balance taking into account geological parameters but also local flora and climate. Further the ultimate depth of mining is 81m (61m AGL& 20m BGL). In the post mining stage, the quarried out pit will be used for rainwater harvesting.

4.2.1 SOLID WASTE GENERATION AND MANAGEMENT

The plastic waste generation is very negligible and it will be collected from the source level in specific dustbin and disposed through the municipal bins.

- Identification of solid waste generations
- Providing dustbins to collect with different color coding
- Creating awareness among the employees
- Developing common storage yards
- Disposal to the nearby municipal yards
- Record keeping
- Review once in quarter

4.2.2 SOIL ENVIRONMENT

Anticipated Impact

Mining activities often disrupt the existing environment as they involve disturbing the untouched earth materials. The massive Charnockite formation is noticed right from the surface and slopping towards southeastern side of the area. The altitude of the area is above 185 m (Max) from MSL. There is no top soil formation in the applied lease area. The entire mined out mineral will be transported to the needy buyers through tippers.

Mitigation Measures for Soil Erosion and Soil Conservation

- Runoff water will be collected in bottom of the quarry and used for plantation and dust suppression during dry season.no run off water will be discharged beyond lease area.
- Wet drilling and haul road water sprinkling will be carried out to minimize air born dust at source level, which may cause soil pollution due to sedimentation.
- Garland drains will be constructed around the project area with silt traps to control the soil erosion during rainy seasons.

- Greenbelt development (0.46.10 Ha.) all along the periphery of the project area (i.e., 7.5 m safety barrier) will ensure binding strength and minimizes soil erosion.
- Soil sampling will be carried out in the core zone for every season to ensure the soil quality is not affected due to the quarrying activities.

4.2.3 WATER ENVIRONMENT

Impact on Surface Water Resources

The impact due to quarrying on the water quality is expected to be insignificant because of no use of chemicals or hazardous substances during quarrying process.

- Tank- 320m(S)
- Maruthadi Eri-1.35Km(SW)
- Therani Big Lake-4.16Km(SE)
- Saradamangalam Tank-9.23Km(SE)
- Periyeri -9.96km(SE)
- Maiyakurichci Eri-6.50Km(SE)
- Punnampatti Tank-9.28Km(NW)

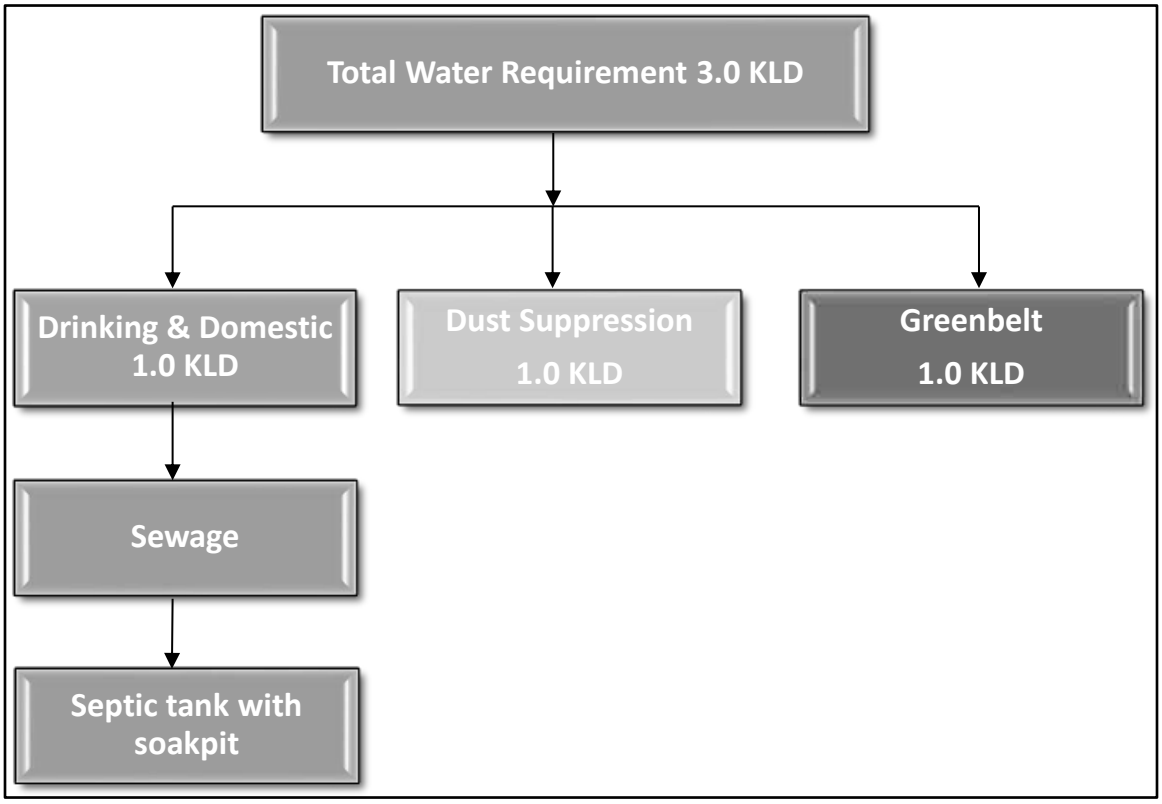
Based on the drainage map given in the Fig.NO.3.22, it is found that there is no stream connect the lease area to the water body. As the proposed mining activity takes place with 100 % recovery. Moreover, no toxic element will be quarried out or no chemicals or hazardous substances are used during mining process. No other water bodies close to the project site, there is no proposal for discharging of wastewater outside the project area. There is no proposal for a rough stone processing or workshop within the project area, so no effluent is anticipated in the mine.

Impact due to Water use in Mines

In the proposed mines water will be mainly used for domestic purpose, dust suppression & plantation. Total water requirement for the project is 3.0 KLD which

will be sourced from outside agencies. Negligible sewage will be generated, for which a septic tank with soak pit will be set up. The water balance diagram is given below.

FIG 4.1 WATER BALANCE DIAGRAM



Impact on Ground Water

The mining activity is not likely to intersect ground water as the ground water table occurs at a depth of 67 m BGL. The mining will go up to the maximum depth of 81m (61m AGL& 20m BGL). So, there will be no chance of intersecting the ground water table by the mining activity. So, the impact of mining on the ground water is not envisaged.

Mitigation measures

- Entire lease area will be provided with proper garland drains.
- Check wears will be provided to prevent solids from wash off.

- Construction of garland drains around freshly excavated so that flow of water with loose material is prevented.
- The mine water will be passed through the natural slopes and valleys and gets accumulated in the settling tank (Bottom pit)

Ground water environment in buffer zone

The scenario of ground water in Alathur Taluk is given below.

TABLE 4.1 Ground Water Level Status in Perambalur District

S. No.	Block	Area Suitable For Groundwater Development (Sq. km)	Categorization Of Block as On March 2004	Harness-able Surface water (M.Cu.m)	Capacity Of existing Tanks (MCM)	Committed Supply for Existing Tanks (MCM 2 fillings)	Category
1	Alathur	410.51	OE	39.85	4.93	9.86	Over Exploited

Source: nwm.gov.in

It is planned to carryout appropriate rainwater harvesting schemes and artificial recharge schemes in the area**.**

Rainwater Harvesting Plan

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

- Development of garland drain around the quarry connected to settling tank.
- Cleaning of drain periodically to prevent siltation
- The supernatant clear water from the settling pond will drain into the nearby channel on the eastern side of the lease.
- Utilizing the rainwater harvested in the mine pit to meet the water requirement of the project.

The average annual rainfall of the area is 816 mm. Taking into consideration of 0.35 as runoff co-efficient for mining area, the total quantity of rain water can be harvested per annum from the area has been tabulated as below.

Table 4.2 – Rainwater Harvesting Plan

S.NO	Rainwater Harvesting Area	Area in Sq.m	Average annual rainfall	Volume of harvestable quantity (Cum) of rain water per annum
1	Quarry Area	15000	0.82	12,300
Total Harvested Rainfall				**12,300**

Total surface water runoff is 12,300 Cum per Annum. 10% of this amount will be evaporated and rest 11,070 m3 will be recharged in the rain water harvesting pit.

The dimension of the rain water harvesting pond will be 12,000 Cu. m. The rain water stored in the pond will be utilized for plantation, dust suppression activities. The capacity of Rain water harvesting post will be sufficient to arrest the surface runoff from the lease area considering the highest amount of rain fall.

4.2.3 BIOLOGICAL ENVIRONMENT

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 below Table.

Table 4.3 Ecological Impact Assessments and Its Mitigations -Part 1

S. No	Issues	Assessment	Mitigations
1	Proximity to national park/ wildlife sanctuary / reserve forest / mangroves / coastline/estuary/sea	Naranamangalam R.F-3.01Km(NW), Nedungur R.F-4.2Km(SW), Maniyankurichi R.F -4.7Km(SW), Velur R.F-5.68Km(NW), Marmareddipalayam-7.5Km(SW) situated within 1.0 km radius. The proposed project does not attract Forest Conservation Act, 1980. There is no wild life sanctuaries found around 10km radius and the area does not attract Wildlife Protection Act, 1972 and C.R.Z. Notification, 1991.	The fugitive dust generated by the mining activity will be suppressed by frequent sprinkling of water based on evaporation rate in the site specific.
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 by developing green belt all along the lease boundary, regular maintenance of tippers, excavators, transporting the tippers within speed limits.
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. There is no proposal for discharge of wastewater to nearby water bodies.	NIL
6	Proposed mining project increase siltation that would affect nearby Biodiversity area.	Surface runoff management structures like garland drain, settling pond etc. as explained above will be constructed and as such there will not be any appreciable impact on surface water quality which in turn can affect the bio diversity of the area.	
7	Risk of fall/slip or cause death to wild animals due to project activities	In the post mining stage, wire fencing is proposed all around the mined-out void to prevent falling of animals in the mine pits.	
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 are no R.F located within 1 km radius. So, the proposed mining activity does not affect forest and forest products.	NIL
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 such significantly important medicinal value species within the ML area and its nearby region.	NIL
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 4.4 Ecological Impact Assessments and Its Mitigations -Part 2

Identified Impacts	Ecological Significance of impact	Magnitude	Phase / duration	Reversibility	Mitigation
Project site Habitat due to Site Clearance.	There are no trees in the core zone. The Mining activity will be carried within the lease area. No clearance of vegetation in the buffer zone	Low impact	Planning stage	Irreversible	The quarried-out pit will be used as water storage pond which increases agricultural activity in the buffer zone.
Impact on 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	Operational stage	Reversible	The sprinkling of water over the haul road will be done. Then completely wet drilling will be take place. The transportation vehicles will be maintained and serviced Properly.
Road construction	No Road construction is required to assess the project site. The existing internal Road connects the project site to the existing SH and NH	No Impact	-	-	-
Ecological Impact on Surrounding/ Eco sensitive habitat due to	Since the proposed project is a mining activity no waste water generation is expected. Sewage	No impact	-	-	-

waste water generated from the project activity.	will be generated due to the workers				
Ecological Impact on Surrounding / Eco sensitive habitat due to Noise generated from the project activity.	During drilling or blasting, transportation of rough stone 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 tipper within specified limits also control the noise generations.
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. The sprinkling of water over the haul road will be done. Then completely wet drilling will be take place.

Carbon Emission:

Carbon released from quarrying machineries and tippers during quarrying would be 340 kg per day, 1,24,100 kg per year and 12,41,000 kg over ten years, as provided in below Table.

Description	Per Day	Per year	For Ten Years
Total fuel consumption in liters	78	28,483	2,84,834
Co2 emission in kg	209	76,334	7,63,340

Carbon Sequestration:

To mitigate carbon emission due to mining activities. We recommend planting trees around the quarry to offset the carbon emission. Fuel efficient machinery and optimize transportation routes to reduce emissions from diesel powered vehicles. Conduct regular vehicular emission tests for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, additional plantation will be carried out around the lease area.

Greenbelt Development

In order to compensate the loss of vegetation cover, it is suggested to carry out afforestation program mainly in proposed mine lease area earmarked for plantation program as per Approved Mining Plan in different phases. This habitat improvement program would ensure the faunal species to re-colonize and improve the abundance status in the core zone. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area.

Table – 4.5 GREENBELT DEVELOPMENT PLAN

Year	No. of trees proposed to be planted	Survival %	Name of the Species	No. of trees expected to be grown
I	460	85%	Neem, Casuarina, Pongamia pinnata, etc.,	392
II				
III				
IV				
V				
Total	**460**			**392**

Nearly 0.46.10 Ha. Of area is proposed for Greenbelt development by planting 460 Nos of trees and expected growth is around 392 Nos @ survival rate of 85%.

The objectives of the green belt cover will cover the following:

- Noise abatement.
- Reuse of waste water to the extent possible.
- Prevention of soil erosion.
- Ecological restoration.
- Aesthetic, biological and visual improvement of area due to improved vegetative and plantations cover.

4.3 AIR ENVIRONMENT

4.3.1 IMPACT DUE TO MINING OPERATION

Impact prediction is a very important phenomenon in evaluating the environmentally potential adverse impacts for any proposed mine project. The impact prediction is always carried out under worst possible conditions so as to mitigate or to eliminate the environmental hazards. These predictions thus calculated are superimposed over the baseline data to calculate the net impact on the environment after the proposed mine Project comes into production.

4.3.2 IMPACT ON AIR ENVIRONMENT

The impacts on air environment from a mining activity depend on various factors like production capacity, machinery involved, operations and maintenance of various equipments and vehicle. Apart from these, there will be other activities associated viz transportation of mineral and waste, stocking facilities and dump management within the mine lease area that may contribute to pollution.

4.3.3 Quantitative Estimation of Impacts on Air Environment

An attempt has been made to predict the incremental rise of various ground level concentrations above the baseline status in respect of air pollution due to one existing quarry and ten proposed Quarries located within 500 m radius from the project site.

The pollutants released into the atmosphere will disperse in the down wind direction and finally reach the ground at farther distance from the source. The concentration of ground level concentrations mainly depends upon the strength of the emission source and micrometeorology of the study area.

In order to estimate the ground level concentrations due to the emission from the proposed project, EPA approved Industrial Source Complex ISC AERMOD View Model has been employed.

The mathematical model used for predictions on air quality impact in the present study is ISC-AERMOD View-6.8.6. It is the next generation air dispersion model, which incorporates planetary boundary layer concepts.

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

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

Special features of AERMOD include its ability to treat the vertical in homogeneity of the planetary boundary layer special treatment of surface releases, irregularly shaped area sources, a plume model for the convective boundary layer, limitation of vertical

mixing in the stable boundary layer, and fixing the reflecting surface at the stack base.

The AERMET is the meteorological preprocessor for the AERMOD. Input data can come from hourly cloud cover observations, surface meteorological observations and twice-a-day upper air soundings. Output includes surface meteorological observations and parameters and vertical profiles of several atmospheric parameters.

The AERMAP is a terrain preprocessor designed to simplify and standardize the input of terrain data for the AERMOD. Input data include receptor terrain elevation data. Output includes, for each receptor, location and height scale, which are elevations used for the computation of airflow around hills.

Salient features of the AERMOD model are given hereunder.

- Excavation operations are considered as area sources.
- Transportation of material on haulage roads has been considered as line source

The predicted ground level concentrations for study period computed using AERMOD model are plotted as isopleths.

4.3.4 Sources of Dust Emission

The proposed mining is carried out by semi mechanized opencast method. The air borne particulate matter generated by ore handling operations, transportation and screening of ore is the main air pollutant. The emissions of sulphur dioxide (SO_2), Oxides of Nitrogen (NOx) 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 taking into consideration proposed production and net increase in emissions. Based on the various operations involved in the production of minerals, the various emission sources has been identified as given below.

a. Area sources.
b. Line sources.

Extraction of mineral from mine, are considered as area sources. Transportation of material from mining benches to various end points are considered as line sources. The impact of above sources on air environment is discussed below:

The other sources of air pollution are the dust generated during the movement of tippers on the haul road. Water tankers with spraying arrangement will be used for regular water sprinkling on the haul roads to ensure effective dust suppression. The tippers are well maintained so that exhaust smoke does not contribute abnormal values of noxious gases and un-burnt hydrocarbons.

4.3.5 Meteorological Data

The meteorological data recorded continuously during the month of March 2025 – May 2025 on hourly basis on wind speed, wind direction and temperature has been processed to extract the 24- hourly mean meteorological data as per the guidelines of IMD and MoEF for application of AERMOD model. Stability classes computed for the mean hours is based on guidelines issued by CPCB on modeling. Mixing heights representative of the region have been taken from the available published literature.

4.3.6 Summary of Predicted Ground Level Concentrations

Ground level concentrations due to the mining activities have been estimated to know the incremental raise and extent of impact in the study area.

The maximum ground level concentration is estimated to be about 2.99 µg/m^3 of PM 2.5 & 4.61 µg/m^3 of PM_{10} within the mine area and cluster area is estimated to be about 4.32 µg/m^3 of PM 2.5 & 5.94 µg/m^3 of PM_{10}, where mining operations are being carried out. The impact of mining operations would be negligible beyond 0.4 km.

Figure – 4.1 represents the spatial distribution of the predicted ground level concentrations of PM_{10} due to emissions from mine.

4.3.7 Emission sources & Quantification

Various point and non-point sources of emissions from Proposed Rough Stone Quarry of Thiru.Hariharan is quantified and presented below:

(I) Area Emissions – Total Material handling (Rough Stone)

Quantity, TPA	Thiru.Hariharan.L Rough Stone: 3,56,042 m3 (Ten Years)
Operational Hours Per Year	2400
Activity Rate, t/hr.	400.9123
Emission of dust, g/t.	0.19
Emission of dust, g /hr.	51.45
Area of influence, m^2	623
Uncontrolled emission rate g/s/m^2	0.00005734
Controlled emission rate, PM10 g/s/m^2	0.00005734
Controlled emission rate, PM2.5 g/s/m^2	0.00004212

(II) Line Source – Transport of Rough Stone from Pit to Boundary

Quantity, TPA	Thiru.Hariharan.L Rough Stone: 3,56,042 m3 (Ten Years)
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	3807
Lead length/trip, Km	0.9
Total VKT/Year	86454
Emission Kg/VKT	0.20
Total emission Kg/Year	30326
Uncontrolled emission rate g/s/m	4.01211
Controlled emission rate, PM10 g/s/m	0.4012
Controlled emission rate, PM2.5 g/s/m	0.35645

Area Emissions – Total Material handling (Cluster Rough Stone)

Quantity, m3	**Proposed Quarries:** Rough stone • M/s.SR Mines and Minerals: 16,30,681.25 Ts. • M/s.Mars Mines: 5,68,150Ts. • R.Rajkumar: 8,59,663.75Ts. • Thiru.Hariharan.L: 9,79,115.50Ts • Thiru.P.Velmurugan: 3,11,245Ts. • Thiru.M.Thangaraj: 3,48,576.25Ts. • Thiru.R.Vinoth: 3,66,300Ts. • M/s. Anjaneya Minerals - 4,21,225 Ts.

	• Thiru. P. Velmurugan - 10,19,837.5 Ts. Existing Quarry: • Thiru. M.Baskaran - Rough Stone - 2,30,687.5 Ts + Gravel - 23,137.5 Ts
Operational Hours Per Year	2400
Activity Rate, t/hr.	369.45
Emission of dust, g/t.	0.29
Emission of dust, g /hr.	75.4525
Area of influence, m2	625
Uncontrolled emission rate g/s/m2	0.0007724
Controlled emission rate, PM10 g/s/m2	0.00077241
Controlled emission rate, PM2.5 g/s/m2	0.0005149

Line Source – Transport of Rough Stone (Cluster)

Quantity, m3	**Proposed Quarries:** • M/s.SR Mines and Minerals: 16,30,681.25 Ts. • M/s.Mars Mines: 5,68,150Ts. • R.Rajkumar: 8,59,663.75Ts. • Thiru.Hariharan.L: 9,79,115.50Ts • Thiru.P.Velmurugan: 3,11,245Ts. • Thiru.M.Thangaraj: 3,48,576.25Ts. • Thiru.R.Vinoth: 3,66,300Ts. • M/s. Anjaneya Minerals - 4,21,225 Ts. • Thiru. P. Velmurugan - 10,19,837.5 Ts. Existing Quarry: • Thiru. M.Baskaran - Rough Stone - 2,30,687.5 Ts + Gravel - 23,137.5 Ts •
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	35496
Lead length/trip, Km	0.19
Total VKT/Year	724156
Emission Kg/VKT	0.23
Total emission Kg/Year	19567
Uncontrolled emission rate g/s/m	6.25645
Controlled emission rate, PM10 g/s/m	0.625645
Controlled emission rate, PM2.5 g/s/m	0.43845

Note: *Emission factor computed based on wind speed of 2 m/s, and moisture content of 10 %. + Emission factor computed based on silt content of 10 % and moisture content of 10 %

FIG 4.2 Isopleth of GLC Prediction for $PM_{2.5}$

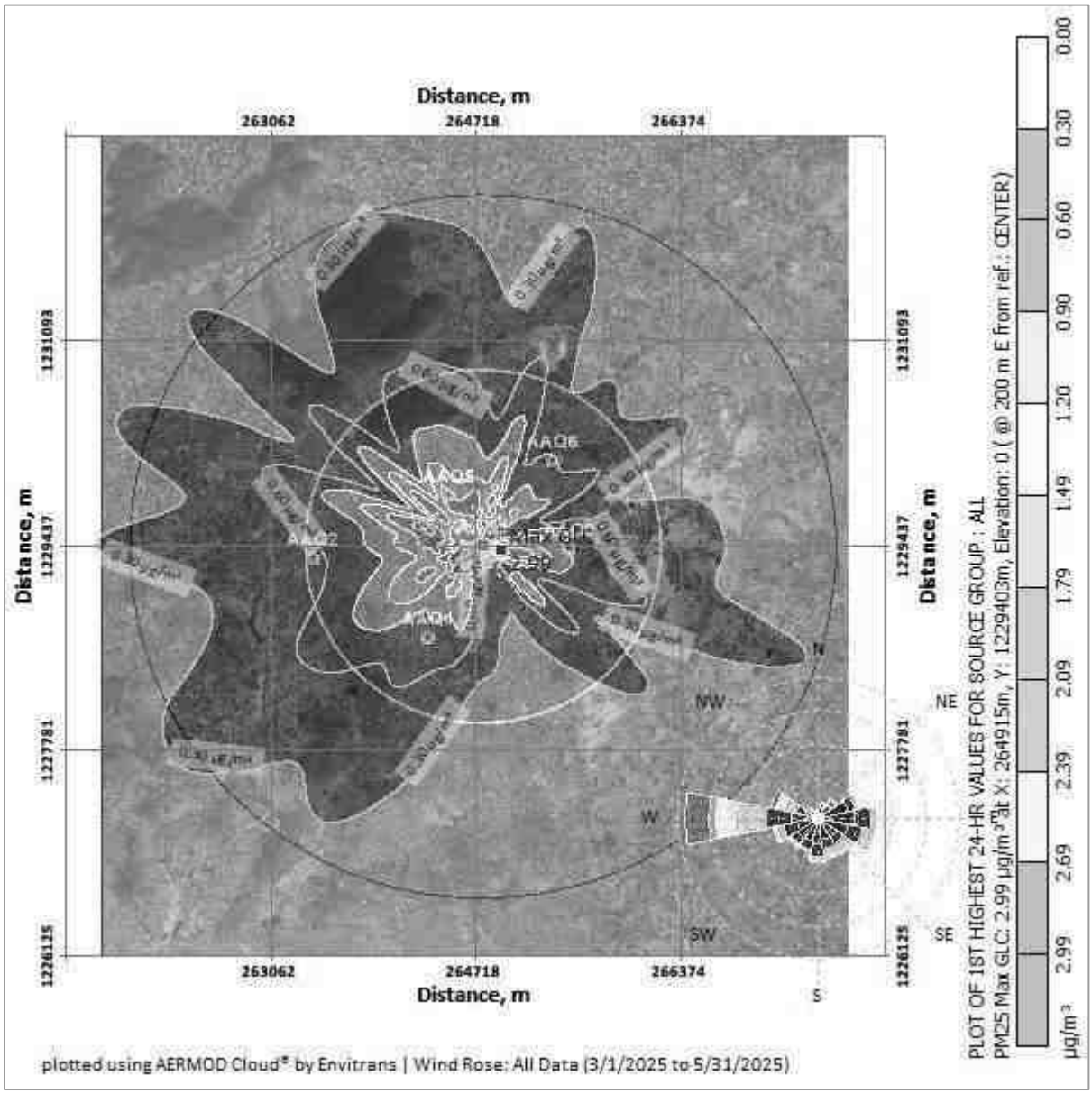


FIG 4.3 Isopleth of GLC Prediction for PM_{10}

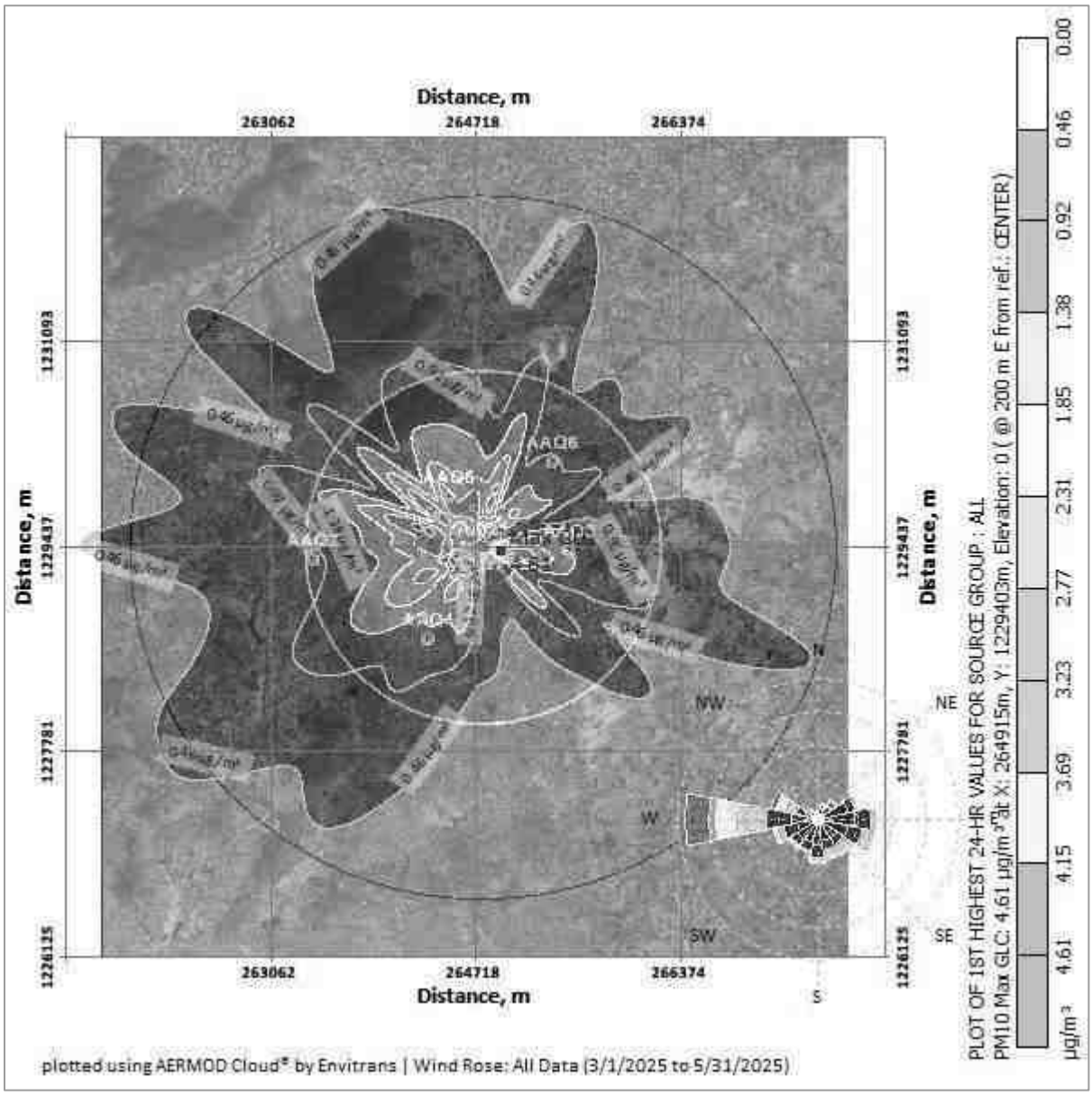


FIG 4.4 Isopleth of GLC Prediction –Cumulative for $PM_{2.5}$

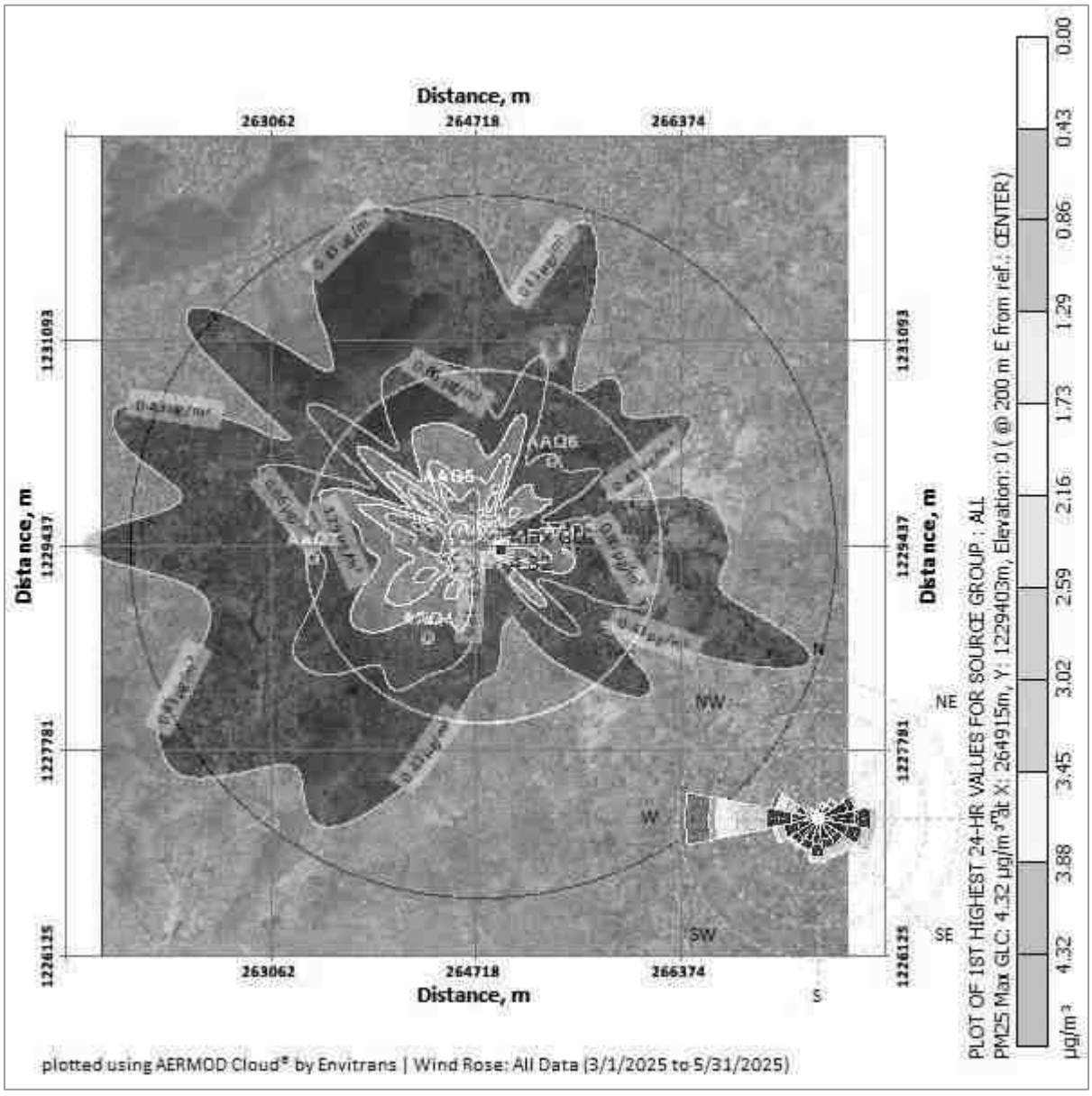
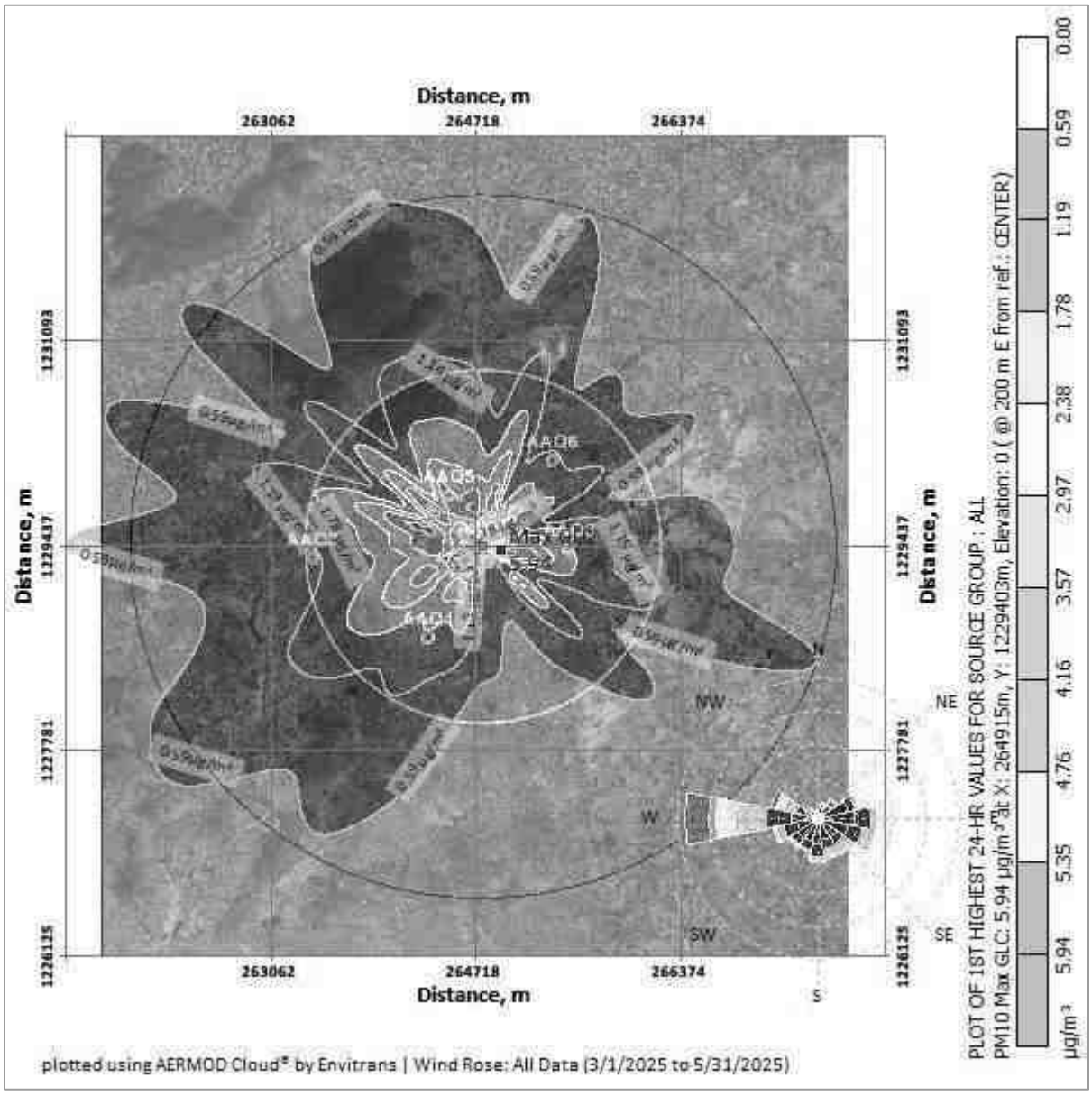


FIG 4.5 Isopleth of GLC Prediction –Cumulative for PM_{10}



PREDICTED AMBIENT AIR QUALITY:

The post project Concentrations of PM10, PM2.5, (GLC) (base line + incremental) after adopting necessary control measures is given in Table No - 4.6 to 4.9.

Table 4.6 Concentrations of PM2.5 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Within Mine Lease area	35.0	2.99	37.99	60
2	Sridevi Mangalam	28.60	2.69	31.29	
3	Near Therani big	26.70	2.39	29.09	
4	Padalur West	29.40	2.09	31.49	
5	Alathur	24.70	1.79	26.49	
6	Pudhukkurichi	27.14	1.49	28.63	
7	Padalur	25.39	1.20	26.59	

Table 4.7 Cluster Concentrations of PM2.5 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Within Mine Lease area	35.0	4.32	39.32	60
2	Sridevi Mangalam	28.60	3.88	32.48	
3	Near Therani big lake	26.70	3.45	30.15	
4	Padalur West	29.40	3.02	32.42	
5	Alathur	24.70	2.59	27.29	
6	Pudhukkurichi	27.14	2.16	29.3	
7	Padalur	25.39	1.73	27.12	

Table 4.8 Concentrations of PM10 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³

1	Within Mine Lease area	73.50	4.61	78.11	
2	Sridevi Mangalam	59.50	4.15	63.65	
3	Near Therani big	56.50	3.69	60.19	
4	Padalur West	59.10	3.23	62.33	
5	Alathur	51.30	2.77	54.07	
6	Pudhukkurichi	57.20	2.31	59.51	
7	Padalur	53.30	1.85	55.15	

Table 4.9 Cluster Concentrations of PM10 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Within Mine Lease area	73.50	5.94	79.44	100
2	Sridevi Mangalam	59.50	5.35	64.85	
3	Near Therani big	56.50	4.76	61.26	
4	Padalur West	59.10	4.16	63.26	
5	Alathur	51.30	3.57	54.87	
6	Pudhukkurichi	57.20	2.97	60.17	
7	Padalur	53.30	2.38	55.68	

The above report seems that, even in the worst-case scenario, the resultant added concentrations with baseline figures show that the values of ambient air quality for PM_{10} are in the range of 54.07 µg/m^3 to 78.11 µg/m^3 and for $PM_{2.5}$ are in the range of 26.49 µg/m^3 to 37.99 µg/m^3 and PM_{10} are surrounding area range of 54.87 µg/m^3 to 79.44 µg/m^3 and for $PM_{2.5}$ are in the range of 27.12 µg/m^3 to 39.32 µg/m^3 which are within the statutory limits in each case. The mitigation measures undertaken in the mine for control of air pollution are given below.

- Wet drilling will be practiced in drilling operation.
- Water sprinkling will be done in haul roads & loading etc.
- The mines workers are provided with the dust masks.

- Three-layer plantation in the safety zone.

DG sets shall be periodically maintained as per manufacturer's specifications.

4.4 ASSESSMENT OF SIGNIFICANCE OF IMPACTS (CRITERIA FOR DETERMINING SIGNIFICANCE, ASSIGNING SIGNIFICANCE).

4.4.1 NOISE ENVIRONMENT

The main noise generating source during mining operation and related activities are drilling, excavation, loading and transportation. Intermittent noise is generated due to operation of diesel generator.

4.4.2 Likely Noise Levels in Lease Area due to mining activity

S. No.	Source Name	Noise Level in dB (A)
1	Diesel generator	102
2	Excavator Operation	95
3	Trucks movement	95
4	Drilling	105
5	Blasting	120

It is expected that the generated noise will be limited within the mine lease area and there will be no profound effect of noise on the buffer zone. The noise level will be maintained below the threshold limit by vigorous maintenance of the machineries. Wet drilling with dust extractor is being used to reduce the noise level during the mining operation.

Noise levels were measured in the lease area and in the nearby Sridevi Mangalam, Kolakkanatham, Padalur West, Alathur, Pudhukkurichi,Padalur Villages, the values are given below.

S. No.	Location	Day Equivalent (in dBA)	Night Equivalent (dBA)
1	Project site	54.6	42.1
2	Sridevi Mangalam	50.0	38.3
3	Kolakkanatham	49.1	41.9
4	Padalur West	47.9	41.1

5	Alathur	45.1	37.5
6	Pudhukkurichi	49.4	43.3
7	Padalur	50.8	39.2

The noise levels are within the MoEF & CC limits of 70 dB(A) in the working area and in the buffer areas, the values are below the limit of 75 dB(A). Since, the residential area norm has been considered for all six locations mentioned above, during mining operation mine lease area will be considered as industrial area/quarry area for which DGMS norms 85 dB(A)/CPCB guidelines 75 dB(A).

4.4.3 Impact of Noise due to mining

- Noise generation in mining is due to operation like drilling, blasting and transportation of minerals within and outside the lease area.
- As per DGMS (Directorate General of Mines Safety) limits, the acceptable noise level is 85 dB (A) for an exposure period of 8 hours.
- Exposure to loud noise can also cause high blood pressure, heart disease, sleep disturbances, and stress. Noise pollution also impacts the health and well-being of wildlife.
- Noise exceeding prescribed limits may cause impairment like abnormal loudness perception, tinnitus which causes a persistent high-pitched ringing in the ears, paracusis or distorted hearing.

4.5 MITIGATION MEASURES

4.5.1 Noise level control.

- As the distance between the source and receptor increases, the noise level decreases. Hence, there will be a natural attenuation.
- The proponent has planned to develop green belt in the periphery of the lease area which diminishes sound volume by dampening them.
- All the equipment/machinery/tippers involved will be properly maintained to control noise generation.
- Conducting regular health checkups for employees involved.
- Employees will be made to work on shifts to reduce their exposure time.
- Providing earplugs to all employees.

- Providing green walls/nets wherever possible.

By adopting these measures, the noise levels will be maintained well within MoEF & CC limits since the baseline value is low.

4.5.2 IMPACTS DUE TO VIBRATION

There will be negligible vibration of ground due to the following activities.

- Due to Blasting
- Due to Drilling
- Due to movement of machinery

Impacts

- Though vibration will be only felt by the people working inside the lease area it is usually undesired.
- Vibration may also cause fly rocks.
- It may frighten the birds and small insects in the lease area. However, it will be felt only for a short period.

Mitigation measures

- The DG set will be kept within the acoustic enclosure made by the stone blocks.
- Drills will be equipped with sharp bits and wet drilling will be adopted.
- A well-planned green belt is proposed for the mining to reduce noise level.
- Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.
- Regular maintenance of the machineries and vehicles to reduce the noise level.
- Use of ear muffs by the workers with occupational exposure to noise.
- Carrying out blasting on limited scale, only from 12:00 PM to 2:00 PM
- Control of fly rock and vibration by maintaining peak particle velocity within the standard as prescribed by the DGMS and MOEF & CC.
- Shallow depth jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive.
- Supervising blasting by competent and statutory Foreman/ Mines Manager.

4.5.3 SOCIO ECONOMIC IMPACT

From the primary Socio-economic survey & through secondary data available from established literature and census data 2011, it is found that there would be positive impact on Socio-economic condition of the nearby area. There is no habitation within 300 m of the proposed mining lease area. Therefore, no major impact is anticipated on the nearby habitation during the entire life of the mine. The entire lease area is in the proponent's possession. Hence, there are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here.

The mining operations in the proposed mine will employ about 24 persons directly and indirect basis through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise, which will provide raising income levels and standards of living in the area through various service related activities connected with the project operations as shown under.

- Project related logistical operations for transport of Rough Stone, etc,
- Various trading services for consumer goods, spare parts, sundry items, etc.
- Contractual services connected with the project.
- Green belt and horticultural works in the project.
- Casual labor needs for various activities.

The State and the Central governments will also get benefited through financial revenues by way of royalty, tax etc from this project.

Mine management will contribute for the upliftment of these villages by conducting regular medical camps, assistance in developing necessary infrastructure facilities like maintenance of schools, village roads, drinking water supply, etc.

From above details, it is clear that the project operations will have highly beneficial positive impact in the area. However, towards the socio economic development of the surrounding area, the proponent has earmarked an amount of Rs.3.00 lakhs under Corporate Environmental Responsibility.

4.5.4 OCCUPATIONAL HEALTH

Impacts on humans due to various mining activities

The occupational risk due to proposed mining may be due to drilling, blasting, excavation and transportation. A total of 33 workers will be engaged in the mining activity. Mining activity may cause various health problems to the mines workers as follows:

- Dust generated during excavation, drilling, stone cutting, sizing and transportation may cause health problems like Silicosis, Asthma, Tuberculosis and other respiratory lungs disorders.
- Heavy weight lifting by the workers may cause injuries to arms, legs and back.
- Noise generated during the mining activity may cause Noise Induced Hearing Loss (NIHL).

Table 4.10 Impacts on humans due to various mining activities

S.No.	Type of activity	Impact
1	Dust generation due to drilling and blasting	Continuous exposure to dust causes Pneumonia, Tuberculosis, Rhematic arthritis and Segmental Vibration
2	Noise generation due to drilling and blasting	Short term impact will be lack of sleep, high blood pressure and heart ailments. Long term exposure may lead to partial or permanent deafness
3	Unexpected accidents	Risks include fly rocks, cracks or fissures due to improper mining methods

Mitigation measures

- The mines worker will be provided with dust mask to minimize the inhalation of the dust.
- Water sprinkling twice in a day is in practice on the haul roads, near excavation and roads to reduce the fugitive dust emission.
- Wet drilling and drilling with dust extractor will be practiced.
- Ear muffs will be supplied to the workers working in the noise prone area
- The mining site will be supplied with first aid facilities and the entire mines worker will have access to that.

- The mines workers will be well trained about the safety practices in the mining activities.
- As per Mines Rules, 1955, medical examination of employees at the initial stage and periodically, shall be done by a team of qualified medical officers provided by the project proponent.
- Regular medical checkup camps shall also be arranged for detection of occupational diseases and minor disease in the nearby rural population.
- Free checkup and medicine for treatment for their acute and chronic illness shall be provided by the lessee. Conducting periodical Medical Examination as per DGMS.
- Making all first aid kits available in mines office
- Keeping fire extinguisher in place
- Educating the employees about how to handle unexpected happenings
- Posting information containing emergency contact numbers in mines office
- By adopting all these measures, the safety of the employees working in the quarry will be ensured.

4.5.5 WASTE MANAGEMENT

Solid Waste

Since the entire mined out material will be utilized there will not be any solid waste generation from this project. However, the Solid waste (MSW) generated from administrative activities will be properly collected and disposed to Govt. Authorized yards / Re-cylers / Disposers.

Liquid Waste

There is no process effluent generation from this mine. Hence no liquid waste is generated. Domestic wastewater i.e 1.0 KLD will be discharged in soak pit via septic tank.

Hazardous Waste Management

In this project the following management practices will be followed:

In the quarrying operation, the source of hazardous waste is from machinery maintenance activities that are waste oil/ Waste lubricants / used filters / Used Hydraulic horses. The said hazardous waste are very negligible quantity, it will be properly collected in the source level, stored in impervious storage yards and disposed of as per the Hazardous waste (Trans-boundary Movement) Management Rules, 2016.

Plastic Waste

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

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CHAPTER 5

ANALYSIS OF ALTERNATIVES

5.1 DESCRIPTION OF EACH ALTERNATIVE

Analysis of alternative site helps in selection of best possible site for the project. On one hand it helps to closeness to the existing infrastructure and on other hand it also helps to minimize the impact of project on environment.

5.2 SUMMARY OF ADVERSE IMPACTS OF EACH ALTERNATIVE

The project proponent has prepared mining plan under rule 19(1) 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No.124/G&M/2025, Dated: 03.06.2025.

- There is no forest land or other Eco-sensitive places.
- Proposed mine site is selected on the basis of occurrence of mineral for suitable end use.

Hence seeking alternative site is not required.

5.3 MITIGATION MEASURES PROPOSED FOR EACH ALTERNATIVE

The mining technology is mechanized Opencast in single-shift operation without any change in technology. The operation will be carried out as per DGMS norms. No alternate technology will be used. Details of the technology used are given in Chapter 2.

5.4 SELECTION OF ALTERNATIVE

In case of Mining projects alternate site selection is not necessary as the mining is site specific and the area in which mining will be carried out has been adequately proved for presence of mineral. The deposit is also having good infrastructural facilities for access and development.

The mining technology is mechanized Opencast in single-shift operation without any change in technology. The operation will be carried out as per DGMS norms. No alternate technology will be used. Details of the technology used are given in Chapter II.

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CHAPTER 6

ENVIRONMENTAL MONITORING PROGRAMME

6.1 TECHNICAL ASPECTS OF THE MONITORING THE EFFECTIVENESS OF MITIGATION MEASURES (INCL MEASUREMENTS, METHODOLOGIES, FREQUENCY LOCATION DATA ANALYSIS, REPORTING SCHEDULES EMERGENCY PROCEDURES DETAILED BUDGET AND PROCUREMENT SCHEDULES)

6.1.1 ENVIRONMENTAL MONITORING

Monitoring is done to measure the efficiency of control measures implemented. Regular monitoring of various environmental parameters like air, water, noise and soil environments is needed to assess the status of environment during the project operation.

A schedule is framed with timeline to monitor various parameters during the operation of the project. The schedule is framed based on MoEF & CC and Tamil Nadu State Pollution Control Board. In case the SEIAA/TNPCB/MoEF & CC or other statutory bodies demand monitoring of any additional parameter/factor, the same will also be done.

The proposed quarry is a small quarry. Hence the Mines-in-charge will be responsible for environmental related activities. After obtaining EC, the conditions mentioned in EC will be strictly followed. The Mines-in-charge will be responsible for implementing the conditions. EC compliance report will also be submitted periodically.

6.1.2 OBJECTIVES OF ENVIRONMENTAL MONITORING

The objectives of Environmental Monitoring are as follows.

- Monitoring and analysis of air and water samples
- Implementing the control and protective measures.
- Coordinating the environment related activities within the project as well as with outside agencies. Collecting statistics of health of workers and population of the surrounding villages. Green belt development etc.

- Monitoring the progress of implementation of Environmental Management Programme.
- Monitoring the noise generation in and around the project areas.
- Monitoring of wastewater treatment and disposal of solid waste.
- The laboratory will be suitably equipped for sampling/testing for various environmental pollutants.

6.1.3 ENVIRONMENTAL MONITORING SCHEDULE

To evaluate the effectiveness of Environmental Management Programme, regular monitoring of the important environmental parameters will be taken up. The frequency of monitoring different parameters is given in table 6.1.

Table 6.1 ENVIRONMENTAL MONITORING SCHEDULE

S.NO	Environmental Attribute	Parameters to be monitored	Monitoring Locations	Frequency
1	Air Quality	Particulate Matter (PM2.5 and PM10), Sulphur dioxide (SO2), Oxides of Nitrogen (NO2), Respirable.	4 locations in the buffer zone and 2 work zone locations.	Once in season
2	Water Quality	General, Physical, and chemical parameters	Ground Water samples (around the project area) and Mine Pit water samples	Once in season
3	Hydrogeology	Water Levels	Nearby wells and Borewells	On yearly basis pre and post monsoon level
4	Noise	Leq. Lmax Lmin, Leq Day & Leq Night dB(A	Work zone locations and buffer zone villages	Once in Season
5	Vibration	Peak Particle Velocity	Mine periphery	Regular Interval
6	Soil	Physical and Chemical Characteristics	2 Locations (1 Core & 1 Buffer)	Once in Season.
7	Greenbelt	Maintenance	Within the lease area	Regular interval

6.1.4 LOCATION

Monitoring of the above-mentioned environmental parameters would be done at appropriate and sensitive areas. The exact location of monitoring is given as Figure – 3.7, 3.9, 3.10 3.13 & 3.15.

6.1.5 MEASUREMENT METHODOLOGY

(a) Ambient Air Quality

Ambient air quality will be monitored for SO_2, NO_x, PM_{10} and $PM_{2.5}$. The instruments like high volume air samplers and Respirable dust samplers would be used for this purpose. These parameters will be monitored as mentioned in the monitoring schedule previously.

(b) Water Quality

Water quality analysis will be done quarterly and the monitored parameters include pH, Temperature, TDS, etc. as specified by SPCB from time to time.

(c) Noise Monitoring

Noise level will be monitored in working environment mainly noise producing sources over the boundary and around the mining area**.**

(d) Green Belt and Afforested Areas

Continuous vigilance and monitoring of green belt will be done for performance and survival rate of the saplings. Watch and ward personnel will properly guard the plantation. Provision will be made for fertilizers application and watering on schedule.

(e) Socio-Economics

Socio-economic of the core and buffer zone details elaborated in Chapter-3.

6.1.6 TECHNICAL ASPECTS OF MONITORING THE EFFECTIVENESS OF MITIGATION MEASURES

The above monitoring schedule will be followed periodically. After collection of the data, the mines-in-charge will analyze the data obtained. The data thus obtained will be incorporated in the EC Compliance report submitted to the regional office, MoEF & CC. The measurement methodologies will be as per CPCB/BIS/MoEF & CC/DGMS norms.

6.1.7 EMERGENCY PROCEDURES

In case of any emergency due to environmental conditions, the mines in-charge will immediately report to the top-level management and the emergency response protocol will be implemented as per MoEF & CC/ SPCB / DGMS norms.

6.1.8 REPORTS TO BE GENERATED

The Project Proponent will maintain records of each test and its interpretation so as to formulate an adequate Environmental Management Plan. The set of records planned to be maintained by Project Proponent are given in below table 6.2.

Table 6.2 Important Records to be maintained by PP

S.No.	Particulars
1	Monitoring results for Air, Water & Soil.
2	Records of slope failure, land erosion & drainage.
3	Plantation Records
4	Environmental and related standards/ norms
5	Records pertaining to statutory consents, approvals.
6	Periodic Medical examination (PME) records.
7	Complain register (Environmental pollution)
8	Records on water and electricity consumption
9	Periodic progress records.
10	Environmental Expenses Records

6.1.9 DETAILED BUDGET AND PROCUREMENT SCHEDULES

The budget planned for environmental monitoring is given below.

Table 6.3 - Environmental Management Plan Budget

Sl. No	Budget planned for	Capital Cost Amount (INR)	Recurring Cost/Annum Amount (INR)
1	Air Environment	7.55	0.99
2	Noise Environment	0.30	0.02
3	Waste Management	0.25	0.12
4	Mine Closure	0.46	0.09
5	Implementation of EC, Mining Plan & DGMS Condition	0.72	0.76
Total		**9.28**	**1.98**
Total EMP Cost for 10 years is 34.23 lakhs (This amount will be subjected to change after public hearing) i.e., Rs.9.28 Lakhs of Capital + Recurring cost Rs. 24.95 lakhs for Ten years			

CHAPTER 7
ADDITIONAL STUDIES

The following Additional Studies were done as per items identified by project proponent and the regulatory authority.

- Public Consultation
- Risk Assessment
- Disaster Management Plan
- Cumulative Impact Study
- Mine Closure Plan
- Slope Stability Plan

7.1 PUBLIC CONSULTATION

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

7.2 RISK ASSESSMENT

The DGMS risk assessment process is intended to identify existing and probable hazards in the work environment and all operations and assess the risk levels of those hazards in order to prioritize those that need immediate attention. Further, mechanisms responsible for these hazards are identified and their control measures, set to timetable are recorded along with pinpointed responsibilities.

The whole quarry operation will be carried out under the direction of a Qualified Competent person holding certificate of competency to manage a metalliferous mine granted by the DGMS. Factors of risks involved due to human induced activities in connection with this proposed mining & allied activity with detailed analysis of causes and control measures for the mine is given in below Table 7.1.

Table 7.1 Risk Assessment and Control Measures

S.NO	Risk Factor	Causes of risk	Control Measures
1	Accidents due to explosives and heavy mining machineries	Improper handling and unsafe working practice	• All safety precautions and provisions of Mine Act, 1952, Metalliferous Mines Regulation, 1961 and Mines Rules, 1955 will be strictly followed during all mining operations. • Entry of unauthorized persons will be prohibited. • Fire-fighting and first-aid provisions in the mine office complex and mining area. • Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the employees and regular check for their use. • Quarry operation will be done as per approved mining plan and other applicable statutory guidelines issued by DGMS, Dept. of Mining & Geology-TamilNadu. • Handling of explosives, charging and firing shall be carried out under competent statutory persons. • A comprehensive standard operating procedure (SOP) will be prepared as per DGMS guidelines and the same will be circulated to all the employees and it will be strictly followed in the all face of mining operation.
2	Drilling	Improper and unsafe practices. Due to high pressure of compressed air, hoses may burst. Drill Rod may break.	• Safe operating procedure established for drilling (SOP) will be strictly followed. • Only trained operators will be deployed. • No drilling shall be commenced in an area where shots have been fired until the blaster/blasting foreman has made a thorough Examination of all places. • Drilling shall not be carried on simultaneously on the benches at places directly one above the other. • Periodical preventive maintenance and replacement of worn-out accessories in the compressor and drill equipment as per operator manual.

			• Drills unit shall be provided with wet drilling to ensure efficient working.
3	Blasting	Fly rock, ground vibration, Noise and dust. Improper charging, stemming & Blasting/ fining of blast holes. Vibration due to movement of vehicles.	• Restrict maximum charge per delay as per approved mining plan. • Proper blasting design with optimum spacing & burden, Charge per delay and stemming. • SOP for Charging, Stemming & Blasting/Firing of Blast Holes will be followed by blasting crew during initial stage of operation. • Shots are fired during day time only. • Charging and firing shall be carried out in the same day. • Siren will be done for each blasting. Blasting evacuation plan prepared and executed. • The danger zone will be distinctly demarcated (by means of red flags).
5	Transportation	Potential hazards and unsafe workings contributing to accident and injuries. Overloading of material. While reversal & overtaking of vehicle. Operator of truck leaving his cabin when it is loaded.	• Before commencing work, drivers personally check the dumper/truck/tipper for oil(s), fuel and water levels, tyre inflation, general cleanliness and inspect the brakes, steering system, warning devices including automatically operated audio-visual reversing alarm, rear view mirrors, side indicator lights etc., are in good condition. Unauthorized person will not be allowed to operate or ride on the vehicle. • Loading according to the vehicle capacity. • Periodical maintenance of vehicles as per operator manual.
6	Natural calamities	Unexpected happenings	• An emergency management plan will be prepared considering all possible national calamity and the same will be executed if any such situation occurs.

			• Escape Routes will be provided to prevent inundation of storm water. • Fire Extinguishers & Sand Buckets in the designated areas.
7	Failure of Mine Benches and Pit Slope	Slope geometry, Geological structure	Ultimate or over all pit slope shall be below 60° and each bench height shall be 5m height.

7.3 DISASTER MANAGEMENT PLAN

This being a small rough stone project that too working in a safe area, no major disaster is expected after following all the statutory rules and regulations.

7.3.1 MODEL DISASTER MANAGEMENT PLAN

The lessee has formulated the disaster Management plan keeping all eventualities in mind.

The mining operation will be carried out under the direction of qualified mines manager and supervisors, based on the guidelines and directions of Directorate General of Mines Safety (DGMS) and Indian Bureau of Mines. Code of practice of different operations will be formulated to ensure safety of men and machines and to avoid various hazards mentioned above. Mine workers will be provided training on safe work practices. The following natural/ industrial hazards may occur during normal operation; slope failure at the mine faces; accident due to heavy equipment/ machinery.

In order to prevent or take care of hazard / disasters if any the following control measures have been adopted.

- All safety precautions and provisions of Metalliferous Mines Regulations (MMR), 1961 is strictly followed during all mining operations.
- Observance of all safety precautions for blasting and storage of explosives as per MMR 1961.
- Entry of unauthorized persons into mine & allied areas is completely prohibited.
- Fire-fighting and first-aid provisions in the mines office complex and mining area are provided.
- Provisions of all the safety appliances such as safety boot, helmets, goggles, dust masks, ear plugs and ear muffs etc. are made available to the employees and the use of same is strictly adhered to through regular monitoring.
- Training and refresher courses for all the employees working in hazardous premises. Working of mine, as per approved plans and regularly updating the mine plans.
- Handling of explosives, charging and blasting are carried out only by qualified

persons following SOP.

- Checking and regular maintenance of garland drains and earthen bunds to avoid any inflow of surface water in the mine pit.
- Provision of high-capacity standby pumps with generator sets with enough quantity of diesel for emergency pumping especially during monsoon.
- A blasting SIREN is used at the time of blasting for audio signal.
- Before blasting and after blasting, red and green flags are displayed as visual signals. Warning notice boards indicating the time of blasting and NOT TO TRESPASS are displayed at prominent places.
- Regular maintenance and testing of all mining equipment were carried out as per manufacturer's guidelines.

7.3.2 OBJECTIVE OF DISASTER MANAGEMENT PLAN

The objective of disaster management plan is to identify mitigation measures to avoid hazards turning in to risk, the materials required for implementing the same, the personnel requirement and their roles and responsibilities, and the communication and operating procedures to be adopted in case of an emergency.

Communication System

The telephone numbers and addresses of mine sites in the vicinity, nearest fire station, police station, local hospital, electricity department, ambulance, and local public representatives and revenue officials shall be prepared and kept in custody of PP.

Facilities

The office shed will have provision of first aid centre to provide first aid in the event of an emergency. The office shed will also function as emergency control room. It will be provided with telephone and mobile phones, and a vehicle for emergency transport.

Personnel

The PP is responsible for overall supervision of the disaster management plan. He will be assisted by supervisors, in implementing the emergency management plan and procedures.

Operating Procedures

The operating procedures during emergencies are related communication to the immediate supervisor, who would relay the same to PP. The PP may assess the requirement of first aid, external assistance, transportation to nearby hospital contingent on the emergency. In the absence of mines manager, the senior most supervisor will be made responsible for disaster management.

7.4 CUMULATIVE IMPACT STUDY

There are one existing quarry and ten proposed Quarries including this proposed quarry are located within a radius of 500 m. The existing and proposed quarries situated within 500 m radius are presented in below Table 7.2 and the letter received from Dept. of Geology and Mining, Perambalur stating the quarries detail within 500m radius is enclosed in Annexure – 3.

Table 7.2 Details of Quarries within 500m radius

S.No	Name of the Quarry Owner	S.F. Nos & Village	Lease Period	Area in Ha
a. Existing Quarry:				
1.	M.Baskaran	Alathur, Padalur(E) 1/7F(P), 1/7G(P), 1/3(P) etc.	23.08.2024 to 22.08.2034	1.33.0
b. Abandoned Quarry / Expired Quarry				
1.	M.Baskaran,	Alathur/ Padalur(E) 4(1)(P),4(2)(P),7(3)(P)	24.01.2018 to 23.01.2023	2.00.0
2.	K.Mathiyalagan,	Alathur/ Padalur(E) 10/1, Block 18	23.05.2007to 22.05.2017	1.00.0
3.	B.Senthilkumar	Alathur/ Padalur(E) 10/1 (Part)	12.04.2006 to 11.04.2016	1.00.0
4.	M.Ravi	Alathur/ Padalur(E) 10/1, Block 20	11.05.2007 to 10.05.2017	1.00.0

5.	V.Panneerselvam	Alathur/ Padalur(E) 10/1, Block 22	31.05.2011 to 30.05.2021	1.00.0
6.	R.Sureshbabu	Alathur/ Padalur(E) 10/1, Block 17	23.05.2007 to 22.05.2017	1.00.0
7.	A.T.Natarajan	Alathur/ Irur, 713/5 etc	28.11.2018 to 27.11.2023	1.34.0
8.	S.N.Vinoba	Alathur/ Padalur(E) 10/1 Block 5	26.04.2007 to 25.04.2012	1.00.0
9.	D.Raja	Alathur/ Padalur(E) 10/1 Block 6	11.05.2007 to 10.05.2012	1.00.0
c. Present Proposed Quarry				
1.	Thiru.Hariharan. L	Alathur/ Padalur (East) 10/1 (Block 2)	Presently Proposed	1.40.6
2.	Thiru. R.Rajkumar	Alathur/ Padalur (East) 10/1 (Block 1)	Presently Proposed	1.50.0
3.	Thiru.P.Velmurugan	Alathur/ Padalur (East) 10/1 (Block 3)	Presently Proposed	1.40.0
4.	M/s. Rajamalai Metals	Alathur/ Padalur (East) 10/1 (Block 4)	Presently Proposed	1.40.0
5.	Thiru.M.Thangaraj	Alathur/ Padalur (East) 10/1 (Block 5)	Presently Proposed	2.10.0
6.	M/s.SR Mines & Minerals	Alathur/ Padalur (East) 10/1 (Block 6)	Presently Proposed	2.20.0
7.	M/s.Mars Mines	Alathur/ Padalur (East) 10/1 (Block 7)	Presently Proposed	1.30.0
8.	Thiru.Vinoth R	Alathur/ Padalur (East) 10/1 (Block 8)	Presently Proposed	1.20.0
9.	M/s.Anjancyaa Minerals	Alathur/ Padalur (East) 10/1 (Block 9)	Presently Proposed	1.20.0
10.	Thiru.P.Velmurugan	Alathur/ Padalur (East) 10/1 (Block 13)	Presently Proposed	1.00.0
Total Area of Cluster		**16.03.60 Ha**		

As seen above, although the individual lease area of this project is less than 5 hectares, the another one proposed Quarry within a 500-meter radius, along with this subject project, add up to more than 5 hectares i.e. 16.03.60 Ha. A map showing the existing and proposed quarry located within 500m radius is given in Figure 1.1.

The cumulative production load of existing and proposed Rough stone quarries within cluster is shown in below table.

Table 7. 3 Salient Features of Existing & Proposed Quarries

Description		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Name of the Quarry	Name of the Quarry	Thiru.R.Rajkumar	M/s.Mars Mines	Thiru.Hariharan.L	Thiru.P.Velmurugan	M/s.SR Mines and Minerals	Thiru.M.Thangaraj	Thiru.R.Vinoth	Anjaneya Minerals	P. Velmurugan	M. Baskaran (in Ts)
Geological Resources in Ts	Roughstone	17,24,813.75Ts	15,35,572.50 Ts	68,32,197 Ts	9,76,195Ts	27,00,156.25Ts	18,45,772.5 Ts	12,04,252.50Ts	9,55,175	26,81,525 Ts	Rough Stone - 8,56,312.5 Ts + Gravel - 34,252.5
Mineable Reserves in Ts	Roughstone	8,59,663.75Ts	5,68,150Ts	9,79,115.50 Ts	3,11,245Ts	16,30,681.25Ts	3,48,576.25 Ts	3,66,300Ts	4,21,225	10,19,837.5	Rough Stone - 2,52,850 + Gravel - 23,137.5
Production quantity for the period of 5years	Roughstone	8,59,663.75Ts	5,68,150Ts	9,79,115.50 Ts	3,11,245Ts	16,30,681.25Ts	3,48,576.25 Ts	3,66,300Ts	4,21,225	10,19,837.5	Rough Stone - 2,30,687.5 + Gravel - 23,137.5
Annual Peak Production in Ts		173649	115473	98697.50 Ts	66082.5	196763	70001.3	74250	-	-	
Production per day in Ts		579	385	329	220	656	233	247	515.875	1818	119
Lorry Loads per day in Nos	-	58	39	33	22	66	23	25	52	182	12
Employment in Nos		30	29	33	23	29	25	25	31	32	15
Proposed Depth in meters		56	51	56	41	56	81	56	56m (31m AGL+25m BGL)	81m (61m AGL & 20m BGL)	20m BGL
Status of the quarry		Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed	Existing

AIR ENVIRONMENT

Based on the above production quantities the emissions due to various activities in proposed mines include various activities like ground preparation, excavation, handling and transport.

The data on the cumulative production resulting from the 10 projects have been given in Tables 7.4.

Table 7.4 Cumulative Production Load

Production Per day in tons			
Quarry	**Quarry Name**	**Total Mineral in tons per day**	**No. of Lorry Load per day**
P1 (Proposed)	Thiru.R.Vinoth	247	25
P2 (Proposed)	Thiru.R.Rajkumar	579	58
P3 (Proposed)	M/s.Mars Mines	385	39
P4(Proposed)	Thiru.Hariharan.L	329	33
P5(Proposed)	Thiru.P.Velmurugan	220	22
P6(Proposed)	M/s.SR Mines and Minerals	656	66
P7 (Proposed)	Thiru.M.Thangaraj	233	23
P8(Proposed)	Anjaneya Minerals	515	52
P9(Proposed)	P. Velmurugan	1818	182
P10 (Existing)	M. Baskaran	119	12
Total		**5101**	**512**

The cumulative study shows that the overall production of rough stone from the one existing and ten proposed quarries is 5101 tons per day with a capacity of 512 trips per day.

The proposed project will bring 500 trips per day. The existing road can absorb this additional traffic due to this project. Various measures like proper maintenance of road, covering of the loaded truck with tarpaulin, water sprinkling will be carried out to ensure no adverse impact on the logistical front. Traffic density study is detailed in Chapter 2.

7.5 CLUSTER MINE CLOSURE PLAN

In the mine closure stage all necessary measures will be taken as per Act & Rules, there is no proposal for back filling, reclamation and rehabilitation in any of the proposals. The quarried pits after the end of life of mine will be properly fenced all around to prevent inherent entry of public and cattle and all the statutory requirements will be fulfilled. As already explained, in the post mining stage the rainwater harvested in the mined- out void shall be utilized for irrigation and domestic needs locally. The conceptual plan is provided in Figure 2.11.

7.6 SLOPE STABILITY PLAN

The factors that affect slope stability of the mine are detailed below.

- Geological structure comprising dip, intervening shear zone formation, clay intrusion, joints / discontinuities, faults etc.,
- Lithology of formation
- slope geometry
- Ground water availability which may cause increased thrust on the faces

Site Specific Analysis

- The area applied for quarry lease is exhibits hilly topography covered by covered by Charnockite formation. The massive Charnockite formation is noticed right from the surface and sloping towards southeast side of the area, the altitude of the area is above 185m (maximum) from MSL.

- The rock type noticed in the lease area is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian.
- Since the formation is of homogeneous rock type probability of slope failure is low and can be avoided if proper measures are adopted.
- There will be a 10 m safety zone which will form a ridge which can also take care of the top section and as such no risk is envisaged on this front.

Mitigation Measures

- Regular inspection of the mine faces to be carried out by pp for ensuring absence of any structural features like faults, joints, dyke, and intrusive material in the rock strata which may affect the slope stability and cleared.
- No loose material or boulders is to be stacked on the mine top or pit benches.
- Height of the benches should be 5m.
- Haul road formation will be at 1 in 15 slope with adequate road width.
- There will be no ground water table intersection.
- No seepage is expected due to formation. Adequate drainage management system comprising peripheral garland drain, settling pond to regulate monsoon water will be created to prevent saturation of compact layers, apparent drainage over the bench slope to avert damages to quarry face and manage the water flow.

*****

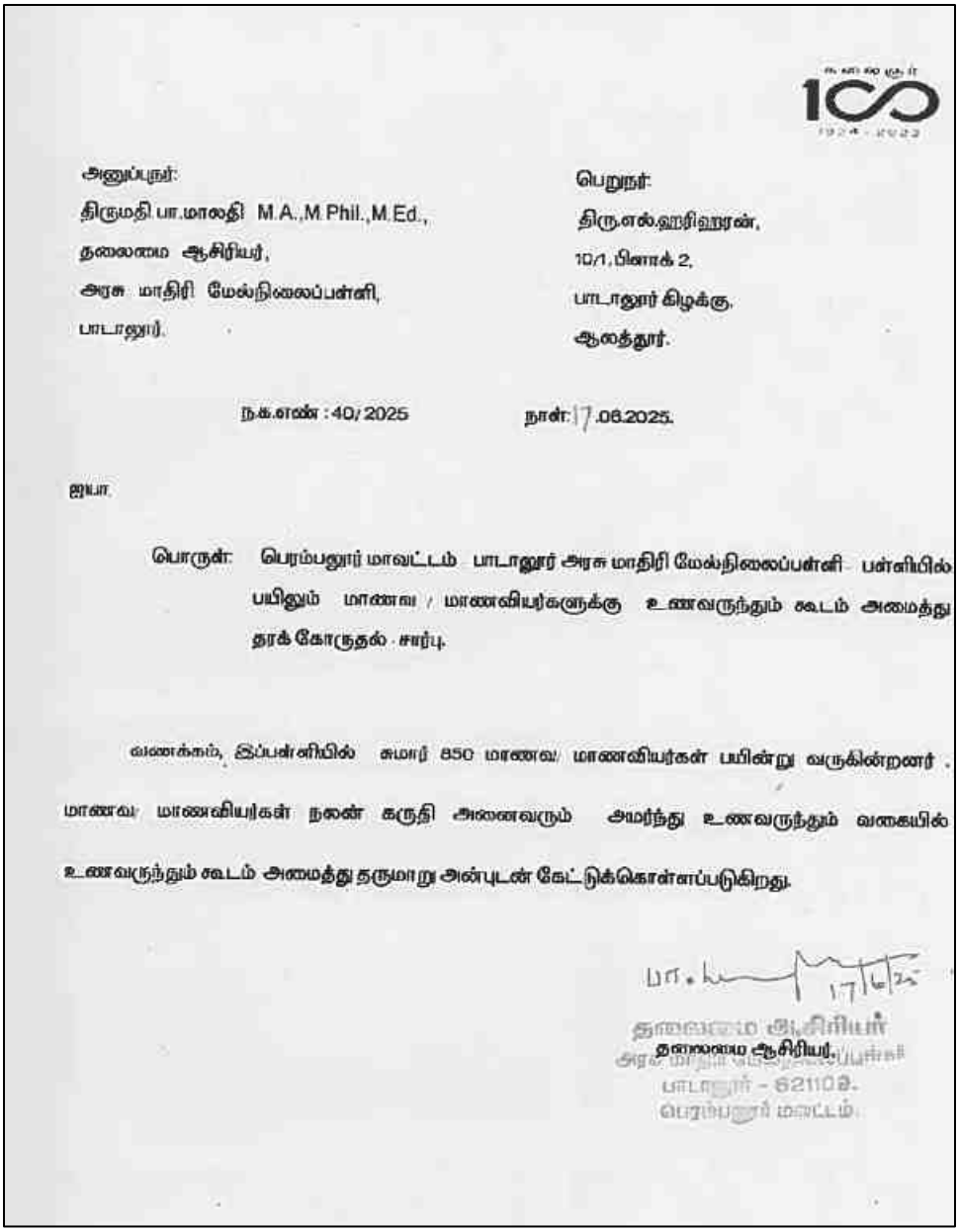
CHAPTER 8

PROJECT BENEFITS

The project area is located on barren land, thereby causing no impact on the loss of agriculture or forest land. The project will create employment opportunities in the area. There will be no adverse effect of mining on the socioeconomic status of the people; rather, mining activities will improve their standard of living. The mining activity creates employment opportunities for the local people, and this definitely raises their economic status. Apart from the overall beneficial impact of the project on the local people of the region, it is felt necessary to augment facilities in the fields of education, health, and social awareness, including concern for the environment and ecosystem.

The mining activity at proposed Rough Stone Quarry of L.Hariharan will create direct employment opportunity for 33 local people.

PP has proposed CER amount of Rs.3.00 lakhs for various activities. The copy of the letter is enclosed below and CER activities will be implemented in Government Model Higher secondary school, Padalur.



அனுப்புநர்:
திருமதி.பா.மாலதி M.A.,M.Phil.,M.Ed.,
தலைமை ஆசிரியர்,
அரசு மாதிரி மேல்நிலைப்பள்ளி,
பாடாலூர்.

பெறுநர்:
திரு.எல்.ஹரிஹரன்,
10/1, பிளாக் 2,
பாடாலூர் கிழக்கு,
ஆத்தூர்.

ந.க.எண் : 40/ 2025 நாள்: 17.06.2025.

ஐயா,

பொருள்: பெரம்பலூர் மாவட்டம் பாடாலூர் அரசு மாதிரி மேல்நிலைப்பள்ளி பள்ளியில் பயிலும் மாணவ / மாணவியர்களுக்கு உணவருந்தும் கூடம் அமைத்து தரக் கோருதல் - சார்பு.

வணக்கம், இப்பள்ளியில் சுமார் 850 மாணவ/ மாணவியர்கள் பயின்று வருகின்றனர். மாணவ/ மாணவியர்கள் நலன் கருதி அனைவரும் அமர்ந்து உணவருந்தும் வகையில் உணவருந்தும் கூடம் அமைத்து தருமாறு அன்புடன் கேட்டுக்கொள்ளப்படுகிறது.

17/6/25
தலைமை ஆசிரியர்
தலைமை ஆசிரியர்,
அரசு மாதிரி மேல்நிலைப்பள்ளி
பாடாலூர் - 621102.
பெரம்பலூர் மாவட்டம்.

Figure 8.1 – CER Letter

The list of activities proposed for CER is mentioned below

Table 8.1 CER Activities

S. No.	PROPOSED CER ACTIVITIES	COST IN LAKHS.
1	Carrying out various infrastructure facilities	Rs.3.00 Lakhs
Total		**Rs.3.00 Lakhs**
The above-mentioned CER activities will be spent for Government Government Model Higher secondary school, Padalur.		

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CHAPTER 9

ENVIRONMENTAL COST BENEFIT ANALYSIS

As per EIA Notification dated 14th Sept., 2006, as amended from time to time, 'Environmental Cost Benefit Analysis' is applicable only if the same is recommended at the Scoping stage.

As per the ToR points issued by SEIAA-TN vide ToR Identification No. TO25B0108TN5955548N, dated 25.09.2025 for the proposed project, the 'Environmental Cost Benefit Analysis' is not prescribed.

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CHAPTER 10

ENVIRONMENTAL MANAGEMENT PLAN

10.1 DESCRIPTION OF THE ADMINISTRATIVE ASPECTS OF ENSURING OF ENSURING THAT MITIGATIVE MEASURES ARE IMPLEMENTED AND THEIR EFFECTIVENESS MONITORED AFTER APPROVAL OF THE EIA.

10.1.1 OBJECTIVES

The Environmental Management Plan is developed to ensure that a project is implemented in an environmentally sustainable manner, where all contractors and subcontractors, including consultants, understand the potential environmental risks arising from the project and take appropriate actions to minimize those risks. EMP also ensures that the project implementation is carried out in accordance with the planned design and by taking appropriate mitigation measures to reduce adverse environmental impacts during the project's life cycle. The impacts due to this mining project are detailed in Chapter 4 and Mitigation measures at the source level and an overall Management Plan at the site level are elaborated on in this chapter.

10.1.2 BASIC OF EMP

The Environmental Management Plan for the proposed project activities is formulated taking into considerations the following key environmental issues.

- Project activities
- Studies on Environmental Impact Assessment
- Air & water pollution control
- Working zone environment improvement
- Occupational hazards & safety
- Environmental monitoring facilities
- Environmental management costs

EMP covers all phases of the project considering the impacts with mitigation measures and monitoring programme. The plan outlines the measures that will be undertaken to ensure compliance with environmental legislations and to minimize adverse impact. Details of EMP measures for implementation in the mine are given below.

Table 10.1 Environmental Management Plan

Environmental Parameter	Mitigation Measures
Air	Wet drilling to suppress the dust emission from drill machine
	Regular water sprinkling on haulage road through fixed water sprinkler.
	1.0 KLD of water will be used for dust suppression.
	Avoiding blasting during high wind period, night times and temperature inversion periods.
	Regular grading of haul road to clear accumulation of loose material.
	It will be ensured that vehicles are properly maintained to comply with exhaust emission requirements
	Maintenance as per operator manual of the equipment and machinery in the mines to minimizing air pollution
	Ambient Air Quality Monitoring carried out in the project area and in surrounding villages to access the impact due to the mining activities and the efficacy of the adopted air pollution control measures.
	Afforestation for control of dust.
Surface water	• Tank- 320m(S) • Maruthadi Eri-1.35Km(SW) • Therani Big Lake-4.16Km(SE) • Saradamangalam Tank-9.23Km(SE) • Periyeri -9.96km(SE) • Maiyakurichci Eri-6.50Km(SE) • Punnampatti Tank-9.28Km(NW)

	Surface runoff management structures like garland drain of required length which is connected to a settling pond will be constructed around the quarry to collect the rain water. Monthly or after rainfall, inspection will do to ensure performance of water management structures and systems. There is no discharge of any effluent into nearby water bodies.
Ground Water	The quarrying operation is proposed upto a depth of 81m (61m AGL& 20m BGL), Water table is found at a depth of 67 m, hence the project will not intersect the Ground water table during entire quarry period.
Water Consumption and Wastewater generation	Water required for this project will be sourced from vendors.
	Domestic wastewater generation of 1.0 KLD will be treated in septic tank with soak pit.
	Conduct ground water and surface water monitoring for parameters specified by CPCB
Noise	The workers employed are provided with protection equipment, earmuffs and ear- plugs for the protection from high noise level generated at the mine site wherever required.
	Noise levels are controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes.
	Development of thick greenbelt all along the safety Zone (10 m) of the project area to attenuate the noise and the same will be maintained.
	Preventive maintenance of mining machinery and replacement of worn-out accessories to control noise generation.
	Annual ambient noise level monitoring is carried out in the project area and in surrounding villages to access the impact due to the mining activities and the efficacy of the adopted noise control measures. Additional noise control measures will be adopted if required as per the observations during monitoring.
Ground Vibration and Fly Rock Control	Controlled blasting using delay detonators will be carried out to maintain the PPV value well within the prescribed standards of DGMS.
	Drilling and blasting will be carried under the supervision of qualified persons.

	Will be Ensured that blast holes are adequately stemmed for the depth of the hole and stemmed with suitable angular material.
	To be Undertake noise or vibration monitoring.
Land Environment	At conceptual stage, the mining pits will be converted into Rain Water Harvesting pit. Remaining area will be converted into greenbelt area.
	No external dumping i.e., outside the project area. The entire material will be sold.
	Garland drains with catch pits / settlement traps to be provided all around the project area to prevent run off affecting the surrounding lands.
	The periphery of Project area will be planted with thick plantation to arrest the fugitive dust, which will also act as acoustic barrier.
	Frequent Soil and ground water testing as per Environmental Monitoring Plan.
Top Soil / Overburden	There is no overburden anticipated during the quarrying operation. Top soil will be preserved in the safety zone and utilized for plantation purpose.
Biological Environment	During mining, thick plantation will be carried out on the mentioned safety zone areas.
	The main attributes that retard the survival of sapling is fugitive dust, this fugitive dust can be controlled by water sprinkling on the haul roads and installing a sprinkler unit near the newly planted area.
	Regular review on green belt development programme.
	Year wise greenbelt development plan mentioned in Chapter III will be monitored.

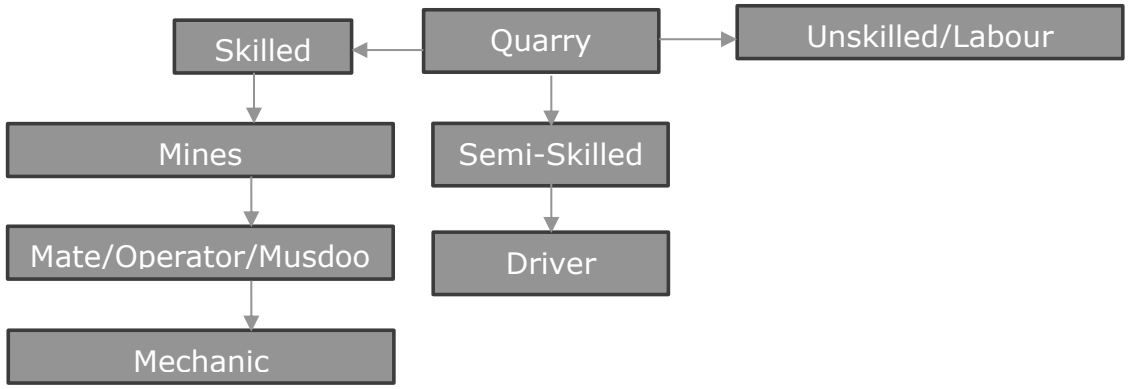
10.1.3 ADMINISTRATION AND TECHNICAL SETUP

Since this is a very small quarry, the mines in-charge will take care of all environment related aspects. He will ensure effective implementation of environment management plan and to ensure compliance of environmental statutory guidelines through Mine Management Level. The action plan for monitoring consists of monitoring of following environmental components.

- Monitoring of the water/ waste water quality, air quality and solid waste generated.

- Analysis of the water and air samples collected through external laboratory.
- Implementation and monitoring of the pollution control and protective measures/ devices which shall include financial estimation, ordering, installation of air pollution control equipment, waste water treatment plant, etc.
- Co-ordination of the environment related activities within the project as well as with outside agencies.
- Collection of health statistics of the workers and population of the surrounding villages.
- Green belt development.
- Monitoring the progress of implementation of the environmental monitoring programme.
- Compliance to statutory provisions, norms of State Pollution Control Board, Ministry of Environment and Forests and the conditions of the environmental clearance as well as the consents to establish and consents to operate.

Fig. 10.1 Organization Chart



1	Skilled	Mines Manager (II Class)	1 No
		Foreman/Mine Mate	2 Nos
		Operator	10 Nos
		Mechanic	1 No
2	Semi-Skilled	Diver	4 Nos
3	Un-skilled	Labours	15 Nos
		Total	**33 Nos**

10.1.4 ENVIRONMENTAL POLICY

- The Project Proponent has stipulated a well-defined Environmental policy by which the lessee is committed to conducting business with a strong environmental conscience towards the community, customers, and employees. The Environment policy is given as below.
- The Environment policy of "Rough Stone Quarry of Thiru.L.Hariharan is that the rules and commitment are driven towards conservation of the environment.
- The lessee is committed to efficient use of natural resources based on the reduce, recycle and reuse method.
- The project is committed to the identification of possible impacts and will take the necessary management steps to mitigate the impacts.
- Environment performance will be regularly monitored and reported for continual improvement of our environment and health performance.

10.1.5 OCCUPATIONAL SAFETY & HEALTH MANAGEMENT

Occupational safety and health are very closely related to productivity and a good employer-employee relationship. The main factors affecting occupational health in quarries are fugitive dust and noise. Safety of employees during quarrying operations and maintenance of mining equipment will be taken care of as per the Mines Act 1952 and Rule 29 of the Mines Rules 1955. To avoid any adverse effect on the health of workers due to dust, noise, and vibration, sufficient measures have been provided. The health status of workers in the mine will be regularly monitored under an occupational surveillance programme. Under this programme, all employees are subjected to a detailed medical examination at the time of employment. Before the induction of employees, a pre-medical checkup is done. In addition, a periodical medical checkup will be done annually for all employees.

10.1.6 COST OF ENVIRONMENTAL CONTROL MEASURES

The effective implementation of EMP is not only reduce pollution load and comply the regulatory requirement but also increase productivity and improve marketability of product. The capital and recurring cost of EMP for the cluster of mines has been given in below table.

Table 10.2 - Environmental Management Plan Budget

Sl. No	Budget planned for	Capital Cost Amount (INR)	Recurring Cost/Annum Amount (INR)
1	Air Environment	7.55	0.99
2	Noise Environment	0.30	0.02
3	Waste Management	0.25	0.12
4	Mine Closure	0.46	0.09
5	Implementation of EC, Mining Plan & DGMS Condition	0.72	0.76
Total		**9.28**	**1.98**
Total EMP Cost for 10 years is 34.23 lakhs (This amount will be subjected to change after public hearing) i.e., Rs.9.28 Lakhs of Capital + Recurring cost Rs. 24.95 lakhs for Ten years			

10.1.7 CONCLUSION

Various aspects of mining activities were considered, and related impacts were evaluated. Considering all the possible ways to mitigate the Environmental concerns, an Environmental Management Plan was prepared, and INR 34.23 lakhs has been allocated for the same. The EMP is dynamic, flexible, and subjected to periodic review. For projects where major environmental impacts are associated, EMP will be under regular review. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP, and the project will have a positive impact on the study area.

CHAPTER 11

SUMMARY& CONCLUSION

11.1 OVER ALL JUSTIFICATION FOR IMPLEMENTATION OF THE PROJECT

INTRODUCTION

Thiru.L.Hariharan has obtained Precise Area Communication Letter from Assistant Director, Department of Geology and Mining, Perambalur, to quarry out 3,56,042 m^3 of rough stone for 10 years from an extent of 1.40.60 Ha located in S.F. Nos. 10/1(Block-2) at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.

As per EIA notification, 2006 and its subsequent amendments the proposed "Rough Stone Quarry of Thiru.L.Hariharan mines cluster falls under Schedule 1(a) of EIA Notification and its subsequent amendments the project comes under Category B1. The ToR for preparation of EIA/EMP report of the project was approved vide ToR Identification No. TO25B0108TN5955548N, dated 25.09.2025. This report has been prepared in line with the approved TOR for production of maximum excavation of 3,56,042 m^3 of Rough Stone.

S.No.	Description	Status/Remarks
1.	Sector	1(a), non-coal mining
2.	Category of the project	B1
3.	Proposed mineral	Rough Stone
4.	Type of Lease	The applied area was previously operated by some other lessee. CCR is not applicable.
5.	Extent of the lease	1.40.60 Ha
6.	Proposed depth of Mining	81m (61m AGL& 20m BGL)
7.	Method of mining	Opencast, Semi-mechanized
8.	Proposed lease period	10 Years
9.	Proposed Environmental Clearance	10 Years
10.	Proposed production quantity	Total Rough Stone: 3,56,042 m^3 (10 YEARS)

		First Five Years – 1,78,472 m^3 Second Five Years – 1,77,570 m^3

The Lessee Thiru.L.Hariharan is an individual with sound experience in the identification, quarrying and marketing of Rough Stone. The proposed land is a Government Poramboke land and attached as **Annexure 6.**

1.1.1 LOCATION

This project site is located in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State with Latitude 11°06'57.13" N to 11°07'00.71" N and Longitude: 78°50'26.02" E to 78°50'32.47" E with Survey of India Topo Sheet No. 58 I/16. To conduct the study, the proposed mine lease area (core zone) and an impact zone of 10 km radius (called buffer zone) around the proposed mine site were considered. The EIA report is based on three months baseline data (i.e. March 2025 to May 2025)

11.1.2 GEOLOGY

The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high-grade metamorphic rock.

11.1.3 PROJECT DESCRIPTION

This is a proposed Rough Stone quarry by Opencast Mechanized mining method with drilling and blasting. The quarrying is restricted up to a depth of 81m (61m AGL& 20m BGL). The geological reserves are estimated to be 9,42,372 m^3 of Rough Stone. The mineable reserve calculated by deducting 10 m safety distance and bench loss. The mineable reserves are 3,56,042 m^3 of Rough Stone which will be recovered at the rate of 100% recovery up to a depth of 81m (61m Above Ground Level And 20m Below Ground Level) for the period of ten years.

- It is proposed to quarry out rough stone with 5m bench height, 5m width with 45° slope using conventional Open cast Mechanized method. The quarry

operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough Stone.

- There is no overburden anticipated during entire rough stone quarrying operation. Top soil will be preserved in the safety zone and utilized for plantation purpose.

S.No.	Type of Detail	Description
1	Sector	1(a) Non coal mining
2	Fresh/Existing project	The applied area was previously operated by some other lessee. CCR is not applicable.
3	Category	B1
4	Nature of mineral	Minor mineral
5	Production	Rough Stone: 3,56,042 m^3
6	Life	10 years
7	Waste generation and management	There is no overburden anticipated during the quarrying operation. Hence, no waste generation. Top soil will be preserved in the safety zone and utilized for plantation purpose.
8	Bench height and width	Height and Width – 5m
9	Ultimate pit depth	81m (61m AGL& 20m BGL)
10	End use	Rough Stone will be loaded into tippers to needy buyers for producing aggregates, M-sand.

11.1.4 PROJECT REQUIREMENTS

The requirements of the project is given below.

S.No.	Nature of requirement	Description
1	Water requirement	Total water requirement of 3.0 KLD which will be procured from the outside agencies. Out of 1.0 KLD drinking water requirements, Green belt development is 1.0 KLD and dust suppression is 1.0 KLD.
2	Power requirement	No electricity is needed for mining operations, for office demands, it will be met from the state grid.

		Total Fuel requirement is 2,84,834 Litres of HSD. for entire life of the project**.**
3	Manpower requirement	Permanent employees – 10, temporary employees – 23
4	Financial requirement	The total project cost as per PFR will be INR 952.23 lakhs including Operational cost, Fixed Asset cost and EMP cost
5	Funds for Socio economic development	INR Rs.3.00 lakhs is allocated. In addition, any demand raised by people during public hearing will also be met.

11.1.5 DESCRIPTION OF LEASE AREA

The features in the study area is given below.

Table 11.1 Description of the lease area

S.No.	Areas	Distance from project site
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil within 15km radius
2	Areas which are important or sensitive for ecological reasons	
A	Wetlands, water courses or other water bodies,	• Tank- 320m(S), Tank – 620m (SE), Maruthadi Eri-1.35Km(SW), Therani Big Lake-4.16Km(SE), Nanthai River – 4.3 km (S)
B	Coastal zone, biospheres,	Nil within 10km radius
C	Mountains, forests	• Naranamangalam R.F-3.01Km(NW), Nedungur R.F-4.2Km(SW), Maniyankurichi R.F

		-4.7Km(SW) 5.68Km(NW), Marmareddipalayam-7.5Km(SW)
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 10 km radius
4	Inland, coastal, marine or underground waters	Nil within 10 km radius
5	State, National boundaries	Nil within 10 km radius
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 10 km radius
7	Defense installations	Nil within 10 km radius
8	Densely populated or built-up area	Perambalur – 13.64 km N
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Perambalur – 13.64 km N
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Nil
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	Nil
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earth quakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No. The area is not prone to earthquakes, floods, etc.

The baseline data collection for meteorology, air, water, noise and soil environments have been carried out during March 2025 to May 2025.

Air, water, noise and soil samples are collected and analyzed through NABL accredited lab.

11.2 EXPLANATION OF HOW ADVERSE EFFECTS HAVE BEEN MITIGATED

11.2.1 AIR ENVIRONMENT

The air monitoring have been carried out in 7 locations and the results are given below.

Table 11.2 Ambient Air Quality Monitoring Locations

S. No.	Station Code	Locations	Coordinates
1	AAQ 1	Within Mine Lease area	11° 6'59.28"N & 78°50'28.84"E
2	AAQ 2	Sridevi Mangalam	11° 6'45.19"N & 78°48'6.12"E
3	AAQ 3	Near Therani big lake	11° 6'47.20"N & 78°52'9.17"E
4	AAQ 4	Padalur West	11° 5'41.47"N & 78°49'45.65"E
5	AAQ 5	Alathur	11° 7'36.71"N & 78°50'15.75"E
6	AAQ6	Pudhukkurichi	11° 8'5.47"N & 78°51'53.17"E
7	AAQ7	Padalur	11° 6'17.30"N & 78°50'41.19"E

All the values of pollutant concentrations were found to be within the NAAQs Standards.

Station ID	Location	Min	Max	Avg.
Particulate matter PM-$_{2.5}$ (µg/m^3)				
AAQ-1	Within Mine	24.2	35.0	29.75
AAQ-2	Sridevi Mangalam	22.40	28.60	25.63
AAQ-3	Near Therani big	21.0	26.70	23.39
AAQ-4	Padalur West	21.80	29.40	25.32
AAQ-5	Alathur	19.30	24.70	21.97
AAQ-6	Pudhukkurichi	21.02	27.14	23.74
AAQ-7	Padalur	20.15	25.39	22.41
CPCB NAAQS 2009 for PM $_{2.5}$ - 60 µg/m^3				
Particulate matter PM-$_{10}$ (µg/m^3)				
AAQ-1	Within Mine	50.90	73.50	62.50
AAQ-2	Sridevi Mangalam	46.70	59.50	53.44
AAQ-3	Near Therani big	45.70	56.50	49.82
AAQ-4	Padalur West	47.80	59.10	53.36
AAQ-5	Alathur	41.0	51.30	45.65

AAQ-6	Pudhukkurichi	44.30	57.20	50.02
AAQ-7	Padalur	42.30	53.30	47.03
	CPCB NAAQS 2009 for PM $_{10}$ - 100 µg/m^3			
	Sulphur Di-oxide as SO_2 (µg/m^3)			
AAQ-1	Within Mine	3.70	6.20	4.93
AAQ-2	Sridevi Mangalam	5.80	8.20	6.98
AAQ-3	Near Therani big	5.90	8.20	7.05
AAQ-4	Padalur West	4.20	6.60	5.36
AAQ-5	Alathur	3.60	6.20	4.92
AAQ-6	Pudhukkurichi	3.80	5.50	4.80
AAQ-7	Padalur	3.60	5.70	4.64
	CPCB NAAQS 2009 for SO_2 – 80 µg/m^3			
	Oxide of Nitrogen as NO_2 (µg/m^3)			
AAQ-1	Within Mine	10.70	12.90	11.86
AAQ-2	Sridevi Mangalam	8.90	11.0	9.96
AAQ-3	Near Therani big	9.20	11.80	10.48
AAQ-4	Padalur West	8.60	10.90	9.76
AAQ-5	Alathur	7.80	10.10	8.95
AAQ-6	Pudhukkurichi	6.20	8.50	7.34
AAQ-7	Padalur	6.90	9.20	8.06
	CPCB NAAQS 2009 for NO_2 – 80 µg/m^3			

11.2.2 WATER ENVIRONMENT

Results of Ground Water sampling Analysis in 7 locations								**Standards as Per IS 10500: 2012**	
	W1	W2	W3	W4	W5	W6	W7	**Acceptable Limits**	**Permissible Limits**
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1.0	<1.0	<1	<1	<1	<1	1	5
pH at 25 ℃	7.75	7.84	7.19	7.91	7.45	7.77	7.36	6.5-8.5	No Relaxation

Electrical Conductivity	504.8	1665	1975.0	2068.0	1286.0	1989.0	2137.0	-	-
Total Dissolved Solids	302	1002	1186	1240	772	1194	1282	500	2000
Total hardness as CaCO3	159	354	392	424	235	385	454	200	600
Calcium as Ca	40.4	64.4	84	96.8	57.6	83.2	102	75	200
Magnesium as Mg	13.9	46.3	43.7	43.7	21.8	42.5	47.5	30.0	100
Calcium as CaCO3	101	161	210	242	144	208	256	-	-
Magnesium as CaCO3	58.0	193	182	182	91.0	177	198	-	-
Total alkalinity as CaCO3	145	327	380	399	260	376	392	200	600
Chloride as Cl-	65.6	342	365	380	241	363	510	250	1000
Free Residual chlorine as Cl-	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	0.2	1
Sulphates as SO42-	42.5	270	342	355	206	338	212	200	400
Iron as Fe	0.06	0.12	0.11	0.12	0.04	BDL(D.L-0.01)	0.03	0.3	No Relaxation
Nitrate as NO3	BDL(D.L-1.0)	2.14	4.65	5.23	4.32	5.62	5.51	45	No Relaxation
Fluoride as F	0.14	0.48	0.55	0.62	0.42	0.63	0.58	1	1.5
Manganese as Mn	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	0.1	0.3

All the values were found to be within permissible limits

11.2.3 NOISE ENVIRONMENT

Noise levels were measured in 7 locations and the results are given below.

Monitoring Location	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	54.6	50.0	49.1	47.9	45.1	49.4	50.8
NIGHT EQUIVALENT	42.1	38.3	41.9	41.1	37.5	43.3	39.2
DAY & NIGHT EQUIVALENT	53.0	48.4	47.8	46.5	43.7	48.2	49.2
Limits as per MoEF&CC							
Day equivalent - 49 dB (A); Night equivalent - 40 dB (A); Work zone Exposure in 8 hr - 90 dB (A)							

11.2.4 SOIL ENVIRONMENT

Soil samples are collected from 7 locations and the results are given below.

parameters	S1	S2	S3	S4	S5	S6	S7
pH at 25 °C	7.21	7.94	8.06	7.95	7.89	8.12	7.92
Electrical Conductivity	165.6	290.8	220.4	273.5	190.2	295.6	265.7
Dry matter content	95.67	96.52	97.21	86.54	97.25	93.67	92.58
Water Content	4.33	3.48	2.79	13.46	2.75	6.33	7.42
Organic Matter	0.92	0.95	0.82	1.32	0.77	0.95	1.03
Soil texture	Silty Clay loam	Silty Clay	Silty Clay	Clay	Silty Clay	Silty Clay	Silty Clay

Grain Size Distribution							
i. Sand	16.32	10.42	8.55	17.05	13.22	10.79	7.89
ii. Silt	45.12	44.33	42.75	38.97	42.76	45.66	41.32
iii. Clay	38.56	45.25	48.7	43.98	44.02	43.55	50.79
Phosphorous as P	1.52	1.62	1.24	1.67	1.36	1.61	1.74
Sodium as Na	323	322	346	498	535	420	396
Potassium as K	596	664	735	904	1030	634	652
Total Nitrogen	295	405	146	205	254	312	175
Total Sulphur	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)	BDL(D.L.0.02)
Water Holding Capacity	38	38	40	41	42	40	42
Porosity	19.5	19.4	17.9	17.1	18.9	18.2	17.3

11.2.5 BIOLOGICAL ENVIRONMENT

FLORA

For measuring the extent of flora present in the study area, the area is divided in to 4 quadrants. The flora population in each quadrant is summed up for the total population in the study area. Field survey is done. Erukku, Aavarai and Nayuruvi are found in lease area. In the buffer zone, common trees like Neem, papaya, mango, teak, etc and shrubs like Avarai, Aloe vera, etc, climbers like Kovai,jasmine etc are found.

FAUNA

In the study area, commonly found animals like dogs, cats, bush rat, cows, birds like 0crow, Myna, Sparrow, etc were found.

11.2.6 LAND USE

The land use land cover data is found using the LANDSAT – 9 satellite imagery. The number of bands used are 11. The land use pattern is given below:

Major Land Use Units of the Study Area in Percentage

Sl.No.	LAND USE / LAND COVER	Area in Sq.Km	Area in Percentage
1	Built-up land	6.55	2.05
2	Crop land	206.83	64.80
3	Existing quarries	2.64	0.83
4	Fallow land	15.1	4.73
5	Hill and forest	23.16	7.26
6	Land with scrub	22.03	6.90
7	Land without scrub	5.13	1.61
8	Plantations	1.07	0.34
9	Salt affected Land	24.76	7.76
9	Water bodies	11.9	3.73
	Total Area	**319.17**	**100.00**

11.2.7 SOCIO ECONOMIC ENVIRONMENT

The socio economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used.

The following data area collected from secondary data.

- Demographic pattern.
- Health pattern
- Occupational structure.
- Amenities available.

The expert visited 6 villages in the study area namely Sridevi Mangalam, Padalur East and west , Alathur, Pudhukkurichi Villages. Discussions were held with the people

from nearby locality to study the social and economic conditions prevailing in the area. The expert also visited nearby hospitals, primary health centres. The following observations were made.

Primary schools are available in many villages. For hospital facilities, people in the locality have to go to hospital in Alathur/Perambalur which is within 6 kms from the lease area. Major schools with higher secondary and senior secondary schools are located in Alathur. The major Panchayat Union located in the area is Alathur. Facilities like petrol pump stations, ATM facility are available in Alathur.

11.2.8 HYDROGEOLOGY OF THE LEASE AREA

The following water bodies are located in the buffer zone:
Tank- 320m(S), Tank – 620m (SE), Maruthadi Eri-1.35Km(SW), Therani Big Lake-4.16Km(SE), Nanthai River – 4.3 km (S)
The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 81m (61m AGL& 20m BGL) and water table is found at a depth of 67 m BGL.

11.2.9 GROUND WATER STUDY

For Ground water study, satellite imagery is used. Water levels from monitoring levels are collected through imaging. The pre-monsoon and post-monsoon data are collected and the results are analyzed.

During field visit, it is observed that water is available in wells only after monsoon. The yield is obtained at deep levels only.

As far as the mining lease area is considered, the area is rocky and no major seepage is envisaged. The production quantity is very less and the depth proposed is 81m (61m AGL& 20m BGL). Hence, there will not be any major impact due to mining on water levels or ground water levels in the area.

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental impacts on the following environments are identified.

- Land environment
- Water environment
- Vegetation
- Fauna
- Air environment
- Noise environment
- Socio-economic impacts

11.2.10 LAND ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major impact due to this project on land environment is the change in land use. Since this quarry is a small one and the production is less, mining activity will be carried out upto 81m (61m AGL& 20m BGL). Other than quarrying of minerals, no other change will be done since there is no dumping. To prevent soil erosion during monsoon season, garland drain will be constructed with silt traps. At the mine closure stage, 0.92.50 Ha of lease area will be left as rain water harvesting pond. 0.46.10 Ha will be developed with green belt. For this, plants like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indiaca are selected. A total of 460 trees are planned to be planted. Spacing will be 3m x 3m.

11.2.11 WATER ENVIRONMENT: IMPACT AND MITIGATION MEASURES

There is no water body present inside the lease area. The entire water requirement for the project is 3.0 KLD which will be sourced from outside agencies. Negligible sewage will be generated, for which a septic tank with soak pit will be set up.

During monsoon season, the excess rain water, if any, will be led through garland drain to the collection pond with silt traps.

Since the mining operation will be limited upto depth of 81m (61m AGL& 20m BGL), there will not be any seepage. However, the rain water percolation and collection of water from seepage shall be less than 300lpm and it shall be pumped out periodically

by a stand by diesel powered Centrifugal pump motivated with 7.5H.P.Motor. The quality of water is expected to be potable. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water can also be used for plantation purposes

The major water bodies found in the buffer zone are.

Tank- 320m(S), Tank – 620m (SE), Maruthadi Eri-1.35Km(SW), Therani Big Lake-4.16Km(SE), Nanthai River – 4.3 km (S)

Since these water bodies are located outside the lease area and there is no discharge of effluent or any untreated water from the mines will be made in to these water bodies, there is no major impact. The proponent will restrict the mining operation only within the lease and no other work will be carried out near the water body or any area outside the lease.

It is planned to carryout appropriate rainwater harvesting schemes and artificial recharge schemes in the area.

- Rain water falling in the quarry will be collected efficiently through garland drains.
- Water thus collected will be passed through collection tank with silt traps. This water can be used by the proponent for water sprinkling and for green belt purposes.
- Excess water after desiltation will be provided to downstream users, if any

11.2.12 BIOLOGICAL ENVIRONMENT: IMPACT AND MITIGATION MEASURES

Impacts

- Fauna is affected due to noise and vibration.
- Dust generation due to mining activities
- Change in land use of the lease area

- Accidental falling of animals

Mitigation measures

- Sirens will be blown before blasting in the mines. To reduce noise levels, plantation will be done. Blasting will be carried out only in the allotted time.
- To reduce dust generation, mist sprayers will be used. During transportation, the material will be covered with tarpaulin. Water sprinkling will be done to reduce generation of pollutants
- After the mine closure stage, the mine pit will be left as rain water collecting tank, which can attract bird population in the nearby areas.
- To prevent entry of animals, the mining area will be properly fenced.

11.2.13 AIR ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major air pollutants due to mining operations are fugitive emissions like PM_{10}, $PM_{2.5}$. Other than these pollutants, gaseous emissions of sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) due to excavation/loading equipment and vehicles plying on haul roads are the cause of air pollution in the project area.

The major impacts are Dust emission due to drilling, blasting and transportation. The major mitigation measures include Using Wet drilling methods, Allowing drilling only with PPE, Carrying out blasting only during specified times, Avoiding blasting during unfavourable weather conditions, Using explosives of good quality, Using mist sprayers Regular wetting of transport, Covering the materials carried in tippers with tarpaulin, Proper maintenance of vehicles used for transportation, Conducting regular emission tests for vehicles used for transport Development of greenbelt is proposed in the safety zone 10 m barriers in the lease area.

The anticipated data is calculated using AERMOD software and the projected values are found to be within limits.

11.2.14 NOISE ENVIRONMENT: IMPACT AND MITIGATION MEASURES

Impacts

- Noise generation in mining is due to operation like drilling, blasting and transportation of minerals within and outside the lease area.
- As per DGMS (Directorate General of Mines Safety) and OSHA (Occupational Safety and Health Administration) limits, the acceptable noise level is 85 dB(A) for an exposure period of 8 hours.
- Exposure to loud noise can also cause high blood pressure, heart disease, sleep disturbances, and stress. Noise pollution also impacts the health and well-being of wildlife.
- Noise exceeding prescribed limits may cause impairment like abnormal loudness perception, tinnitus, which causes a persistent high-pitched ringing in the ears, paracusis or distorted hearing

Mitigation measures

- As the distance between the source and receptor increases, the noise level also decreases. Hence, there will be a natural attenuation
- The proposed has planned to develop green belt in the periphery of the lease area, which diminishes sound volume by dampening them.
- All the equipment/machinery/trucks involved will be properly maintained to control noise generation
- Conducting regular health checkups for employees involved
- Employees will be made to work on shifts to reduce their exposure time
- Providing earplugs to all employees

By adopting these measures, the noise levels will be maintained well within MoEF & CC limits since the baseline value is low.

11.2.15 VIBRATION: IMPACT AND MITIGATION MEASURES

Impacts

- Though vibration will be only felt by the people working inside the lease area, it is usually undesired.

- Vibration may also cause flyrocks
- It may frighten the birds and small insects in the lease area. However, it will be felt only for a short period

Mitigation measures

- Carrying out blasting on limited scale, only from 12:00 PM to 2:00 PM
- Control of fly rock and vibration by maintaining peak particle velocity with in standard as prescribed by the DGMS and MOEF & CC.
- Shallow depths jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive
- Supervising blasting by competent and statutory foreman/ mines manager

11.2.16 SOCIO ECONOMIC ENVIRONMENT

Impact and Mitigation measures

No land is acquired from anyone. No rehabilitation is needed. Hence, there is no negative impact. The proponent has planned to spend INR 3,00,000 for CER activities. This amount will be subjected to change after public hearing.

11.2.17 OCCUPATIONAL HEALTH

Impacts

Dust generation due to drilling and blasting, Noise generation due to drilling and blasting, unexpected accidents. Continuous exposure to dust causes Pneumonia, Tuberculosis, Rhematic arthritis and Segmental Vibration, Short term impact will be lack of sleep, high blood pressure and heart ailments. Long term exposure may lead to partial or permanent deafness, Risks include fly rocks, cracks or fissures due to improper mining methods

Mitigation measures

- Using dust suppression measures like water spraying on roads to reduce rise of air pollutants
- Providing green belt for air pollutant and noise attenuation
- Ensuring slope stability

- Employing only trained professionals for blasting
- Conducting Pre-Medical Examination for employees before inducting
- Conducting periodical Medical Examination once in 6 months.
- Making all first aid kits available in mines office
- Keeping fire extinguisher in place
- Educating the employees about how to handle unexpected happenings
- Posting information containing emergency contact numbers in mines office
- By adopting all these measures, the safety of the employees working in the quarry will be ensured.

11.2.18 ENVIRONMENTAL MONITORING PROGRAMME

Monitoring is done to measure the efficiency of control measures implemented. Regular monitoring of various environmental parameters like air, water, noise and soil environments is needed to assess the status of environment during the project operation. A schedule is framed with timeline to monitor various parameters during the operation of the project. To evaluate the effectiveness of environmental management programme, regular monitoring of the important environmental parameters will be taken up. Air monitoring will be carried out once in 3 months, water sample will be collected once in a season, noise will be monitored once in 3 months, soil samples will be analyzed once per season. For EMP, a budget of INR 34.23 lakhs is allocated.

11.2.19 PROJECT BENEFITS

Financial benefits

- This project will contribute financially through payment of taxes like royalty, GST, etc
- The project will also contribute via CSR.
- The demands of people during public hearing will also be considered by the project proponent

Social benefits

- This project provides employment to 33 people directly. Local people will be hired for unskilled labour.
- Through CSR, nearby schools, hospitals will be benefitted.
- For CSR, INR 3,00,000 is allocated.
- Based on the demand of the people during public hearing, further funds will be allocated, if necessary.

Various aspects of mining activities were considered and related impacts were evaluated. Considering all the possible ways to mitigate the environmental concerns Environmental Management Plan was prepared and 34.23 lakhs for the Ten years has been allocated as EMP cost. The EMP is dynamic, flexible and subjected to periodic review. For project where the major environmental impacts are associated, EMP will be under regular review. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP and the project will bring the positive impact in the study area.

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CHAPTER 12

DISCLOSURE OF CONSULTANTS

Global Mining Solutions is a NABET Accredited EIA consultant as per NABET certificate NABET/EIA/23-26/SA 0241. The registered office of Global Mining Solutions is at Plot No.6, S.F.No.13/2 A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamilnadu-636455.

Declaration by Experts contributing to the proposed Rough Stone Quarry over a lease extent of 1.40.60 Ha. & Cluster extent of 16.03.60 Ha located at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.

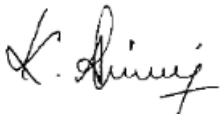
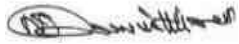
I, hereby, certify that I was a part of the EIA team that developed the above EIA.

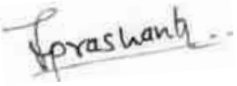
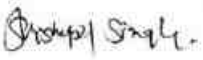
EIA Coordinator Name: M. Manikandan

Period of involvement: March 2025 to May 2025.

Contact information:

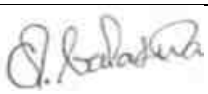
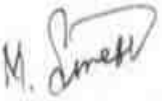
M/s Global Mining Solutions
Plot No.6, SF No. 13/2, A2, VS City, RC Chettypatty,
Kottamettupatty, Omalur,
Salem, Tamil Nadu – 636 455.

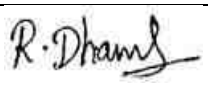
S. No.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and Date
1	*AP*	*Dhanalakshmi Ramanathan*	*Assessment of existing air quality, Impact of the project on ambient air and suggested mitigation measures for air pollution.* *Period: March 2025 to May 2025.*	
2	*WP*	*Abirami Kaliaperumal*	*Assessment of existing water quality, impact of the project on surface and ground water quality, suggested mitigation measures for minimizing the impact.* *Period: March 2025 to May 2025*	
3	*SHW*	*Ramadoss N*	*Assessment of waste generated from the project, suggested waste management practices.* *Period: March 2025 to May 2025*	
4	*SE*	*Sarasvathy K*	*Baseline SE studies. Data compilation and assessment. Impact of the project on SE status of the area. Formulation of CER plan.* *Period: March 2025 to May 2025*	
5	*EB*	*Saravanan S*	*Baseline data collection of related to ecology of the area.* *Period: March 2025 to May 2025*	
6	*HG*	*Ravinthiran N*	*Hydrogeological feature of the area. Ground water depth and impact of project on ground water of the area.* *Period: March 2025 to May 2025*	
7	*AQ*	*Srilatha Thiruveedhula*	*Air quality modeling utilizing the area source model. Predication of the ground*	

			level concentration of the dust. Suggesting suitable mitigation measures. <u>*Period: March 2025 to May 2025*</u>	
8	*NV*	*Dhanalakshmi Ramanathan*	*Ambient noise study of the area. Incremental noise generation due to quarry operation and impact of the noise due to the project.* <u>*Period: March 2025 to May 2025*</u>	
9	*LU*	*Srilatha Thiruveedhula*	*Preparation of land use map based on satellite imagery. Land use classification and analysis. Impact prediction of the project on the surrounding land environment.* <u>*Period: March 2025 to May 2025*</u>	
10	*RH*	*S.V. Prashant*	*Identification of the Risk related to the mining activities. Preparation of emergency disaster management plan. Plan for supply of safety equipment for the worker.* <u>*Period: March 2024 to May 2024*</u>	
11	*SC*	*Shisupal Sing*	*Soil monitoring, secondary data collection on soil type, soil management practices, utilization of topsoil.* <u>*Period: March 2025 to May 2025*</u>	
12	*GEO*	*Valliappan Meyyappan*	*Geological map, stability of quarry and dump, management plan for mine stability, after use of mining quarry and geological feature of the area.* <u>*Period: March 2025 to May 2025*</u>	

TM- EC						
S.No	*Name of TM (EC)*	*Sector(s) proposed*	*Approved (to work under)*	*Period of involvement*	*Type of work*	*Signature*
1.	*Abiramii*	*1(a)*	*Manikandan Manickam*	*Period: March to May 2025.*	*Associated with EIA Coordinator in overall preparation of Draft EIA/EMP report.*	

TM-FAE:						
S. No	**Name of TM (FAE)**	**Functional Area**	**Approved FAE (to work under)**	**Period of involvement**	**Type of work**	**Signature**
1	Kamaraj S	LU	Srilatha Thiruveedhula	Period: March to May 2025	Associated with Experts in preparing Land use map based on satellite imagery, Land use classification and analysis, Impact prediction on surrounding land environment.	
		HG	Ashok Kumar Rajagopal	*Period: March to May 2025.*	Associated with Experts in studying hydrogeological pattern of study area, Studying ground water and the impact of the project on ground water	
2	B.J.Sampatkkumar	SE	Saraswathy K	*Period: March to May 2025.*	Assisted by the Expert in preparation of socio-economic report.	
		SC	Shishupal Singh	*Period: March to May 2025.*	Assisted by the Expert in interpretation of soil sampling and their quality involved in the project.	
3	Mownica Balaji	NV	Dhanalakshmi Ramanathan	*Period: March to May 2025.*	Associated with the expert team in suggesting control measures for noise and Ground Vibration.	

		AP	Dhanalakshmi Ramanathan		Associated with expert team in assessing existing air quality, impact of the project on ambient air and suggesting mitigation measures for air pollution	
4	Balasubramani G	NV	Dhanalakshmi Ramanathan	*Period: March to May 2025.*	Associated with the expert in selection of base line monitoring stations, Review of Noise quality results, Review of emission sources – drilling, blasting, excavation and transportation, Identification of impacts on environment, identification of remedial measures and input to EIA preparation	
		Geo	Valliappan Meyyappan		Associated with the expert in preparing Geological map.	
5	Suresh Mani	LU	Srilatha Thiruveedhula	*Period: March to May 2025.*	Associated with Experts in preparing Land use map based on satellite imagery, Land use classification and analysis, Impact prediction on surrounding land environment.	
		HG	Ashok Kumar Rajagopal		Associated with Experts in studying hydro-geology pattern of study area, studying water and the impact of the project on ground water.	
6	Asan Ali S	NV	Srilatha Thiruveedhula	*Period: March to May 2025.*	Associated with the expert in monitoring and analysis of blast induced ground vibration in order to develop the site-specific equation for its prediction, monitoring of fly rocks & air blast (noise), preparation of SOP's for the safety blasting practice in the mines.	

		Geo	Valliappan Meyyappan		Associated with the Qualified Person & Experts in preparing Geological map, assessing stability of quarry slope faces and dump, management plan for mine stability and after use of mining quarry and geological features of the area during mine plan preparation.	
7	Prabu M	Geo	Valliappan Meyyappan	*Period: March to May 2025.*	Associated with Experts and involved in Field Investigations, Mapping /Geo-referencing	
8	Abirami Kaliyaperumal	RH	S V Prashant	*Period: March to May 2025.*	Associated with experts and involved in the identification risk and hazard, suggesting safeguard measures.	
9	Dhanalakshmi Ramanathan	AQ	Srilatha Thiruveedhula	*Period: March to May 2025*	Involved with Expert team and involved in calculating air emission values using Meteorological data and Providing inputs for running modelling (ISCT3, AERMOD).	
10	Manikandan Manickam	AP	Ramados s N	*Period: March to May 2025.*	Associated with expert team in assessing existing air quality, impact of the project on ambient air and suggesting mitigation measures for air pollution	
		WP	Abirami Kaliyaperumal		Involved in the identification of source of water and waste generation, suggesting treatment for safe disposal of wastewater	

ANNEXURE-1

File No: 12490

Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Environment Impact Assessment Authority(SEIAA), TAMIL NADU)

***

Dated **25/09/2025**

To,

Thiru. HARIHARAN. L
No.9, Dhanalakshmi Street, Postal Nagar, Nemilicheri, Chrompet,Kancheepuram District - 600 044.
TAMIL NADU.
lhariharan.88@gmail.com

Subject: Grant of Terms of Reference along with Public Hearing under the provision of the EIA Notification 2006-regarding.

Sir/Madam,

Sub: SEIAA-TN Proposed Rough Stone quarry lease over an extent of 1.40.60 Ha at S.F.No. 10/1 (BLOCK-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu by **THIRU.HARIHARAN. L -** under project category **–** "B1" and Schedule S.No.1(a) "Mining of Minerals Projects" of EIA Notification, 2006, as amended **– ToR issued along with Public Hearing** - preparation of EIA report **–** Regarding.

Ref: 1. Online proposal No. SIA/TN/MIN/545200/2025, Dated: 21/07/2025.
2. Your application submitted for Terms of Reference dated: 22.07.2025.
3. Minutes of the 609th SEAC meeting held on 26.08.2025
4. Minutes of the 888th SEIAA meeting held on 17.09.2025.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO25B0108TN5955548N
(ii) File No.	12490
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Rough Stone Quarry of Thiru.L.Hariharan
(viii) Name of Company/Organization	HARIHARAN L
(ix) Location of Project (District, State)	PERAMBALUR, TAMIL NADU
(x) Issuing Authority	SEIAA
(xi) Applicability of General Conditions	no
(xii) Applicability of Specific 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 17.09.2025. 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 of **THIRU.HARIHARAN. L** 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 Additional Chief Secretary to Government, Environment & Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. Monitoring Cell, IA Division, Ministry of Environment, Forests &CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
5. The District Collector, Perambalur District.
6. Stock File.

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Seac Conditions - Site Specific

S. No	Terms of Reference
1.1	**Major Condition:** 1. **The PP shall furnish modified MP incorporating benches on all the sides along with EIA Report.** **Specific Condition:** 1. **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 statutory personnel, appropriate environmental monitoring, good maintenance of haul roads and village/panchayat roads, authorized blasting operation etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal:**

S. No	Terms of Reference
	(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**. 2. The PP should submit an affidavit to follow the scientific formation of benches for 5m *5m properly during mining as per the approved mining plan. 3. The PP shall install the CCTV camera for the continuous surveillance of mining activity & furnish the photographic/videographic evidence along with the EIA report.

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 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

S. No	Terms of Reference
	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. 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

S. No	Terms of Reference
	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 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

S. No	Terms of Reference
	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 **609th** SEAC-I meeting held on **26.08.2025**. After detailed discussions, the Authority accepts the recommendation of SEAC-I and decided to grant **Terms of Reference (ToR) along with Public Hearing for the quantity of 3,56,042 m^3 of Rough Stone up to the depth of 81m (61m Above Ground Level And 20m Below Ground Level)** 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-I & normal conditions & the SEIAA Standard conditions.

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. 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

S. No	Terms of Reference
	as the health of the public in the vicinity. **Agriculture & Agro-Biodiversity** 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, horti-cultural 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. **Forests** 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. **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 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: 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. **Energy** 28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished. **Climate Change**

S. No	Terms of Reference
	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. **Mine Closure Plan** 32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued. **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. 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. **Risk Assessment** 35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining. **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. **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. 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

S. No	Terms of Reference
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, 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

S. No	Terms of Reference
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 Wildlifeand 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 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

S. No	Terms of Reference
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
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

S. No	Terms of Reference
	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
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

S. No	Terms of Reference
	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

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

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

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

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

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

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

e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -11013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website http://www.moef.nic.in/ may be referred.

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

Signed by
Rahul Nadh Anikkadu Reghunadhan
Date: 25-09-2025 19:05:00
Reason: Verified and signed

ANNEXURE-2

ANNEXURE I

Rc.No.124/G&M/2025, Dated:02.05.2025

Department of Geology & Mining,
Collectorate,
Perambalur - 621212.

ASST. DIR. GEOLOGY AND MINING PERAMBALUR

PRECISE AREA COMMUNICATION LETTER

Sub : Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025_CGAM_525779_1 - Thiru.Hariharan. L(BID ID: 1274879) quoted highest Bid amount (H1) For the quarry listed in Serial Number 24 - Declared as H1 bidder - H1 Bid Amount remitted - Solvency Certificate submitted - Precise Area Communicated - Reg.

Ref:
1. G.O.(Ms).No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
2. Perambalur District Gazette(Extraordinary) Notification No.1, dated:18.02.2025.
3. E-Tender published under Tender ID:2025_CGAM_525779_1 in Tamil Nadu Governmente-tender portal.
4. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.124/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)
5. Remittance challan No. 20250329001580 dated: 29.03.2025 submitted by Thiru.Hariharan. L(BID ID: 1274879).
6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.124/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)
7. Remittance challan No. 20250429014982 dated.29.04.2025 submitted by Thiru.Hariharan.L(BID ID: 1274879).

******

I invite your attention to the references cited above

Notice Inviting Tender (NIT) was published vide Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025, inviting applications for grant of rough stone quarry leases in Government poramboke lands in Perambalur District through e-Tender cum Auction. Online tender was published in Tamil Nadu Government e-tender portal (https://tntenders.gov.in/) under Tender ID: 2025_CGAM_525779_1 and e-Auction was conducted 27.03.2025 for bidders whos' bids were qualified technically and financially.

After Financial Evaluation, Thiru.Hariharan. L(BID ID: 1274879) was declared as H1 bidder for the quarry listed in Serial Number 24 of the Gazette as he quoted highest bid amount of Rs. 8,30,00,000/- for the said quarry. The H1 bidder was directed to remit 10% of the Highest bid amount vide notice in the reference 4th cited and accordingly, the H1 bidder has remitted 10% of the bid amount to a sum of Rs.83,00,000/- and submitted remittance challan No.20250329001580 dated: 29.03.2025 to this office.

Subsequently, Thiru.Hariharan. L(BID ID: 1274879) was directed to remit the remaining 90% of Highest bid amount after adjusting the Bid Security already paid by him within one month to Government head of account and to submit original remittance challan to this office. Accordingly, Thiru.Hariharan. L(BID ID: 1274879) has remitted Rs. 7,16,91,730/-after deducting Rs.30,08,270/-(the Bid Security amount already paid by the bidder) in Government account within one month and submitted remittance challans to this office.

The details of H1 Bidder for the quarry listed in Serial No.24 of the District Gazette, H1 Bid Amount offered and remittance of Bid amount by bidder are as follows.

1.	**Quarry Detail**	
	Serial No. in District Gazette No.01, dated 18.02.2025.	24
	Taluk	Alathur
	Village	Padalur (East)
	S.F.No.	10/1 Block 2
	Extent	1.40.6 Hectares
	Lease Period	10 Years
2.	**H1 Bidder, Bid Amount Remittance**	
	H1 Bidder	Thiru. Hariharan. L (BID ID: 1274879) No. 9, Dhanalakshmi Street Postal Nagar, Nemilicheri Chrompet, Kancheepuram District – 600 044.
	H1 Bid Amount	Rs. 8,30,00,000/-
	10% of H1 bid amount remitted	Rs. 83,00,000 /- (Challan No.20250329001580 dated: 29.03.2025)
	Bid Security (EMD) already remitted	Rs. 30,08,270/-
	90% of bid amount paid after adjusting Bid Security already paid	Rs. 7,16,91,730/- (Challan No. 20250429014982, dated 29.04.2025)

The H1 Bidder, Thiru.Hariharan. L(BID ID: 1274879) has remitted entire H1 Bid Amount of Rs. 8,30,00,000/- in Government account within one month as per sub- rule 16 of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959

Therefore, in exercise of the powers conferred under sub rule 17(a) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959, an extent of 1.40.6 hectares of Government land in S.F.No.10/1 Block 2 of Padalur (East) Village, Alathur Taluk, Perambalur District as notified in Serial Number.24 of the Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025 is hereby fixed as Precise Area for grant of permission to quarry Roughstone for a period of 10 years to Thiru. Hariharan. L(BID ID: 1274879), subject to the following conditions

1. 10 meters safety distance should be left out for the adjacent Government lands.
2. The applicant shall not make any hindrance to the adjacent lands and public.
3. The applicant should submit approved Mining Plan, Environment Clearance and Consent to Establish (CTE) & Consent to Operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.

The applicant Thiru.Hariharan. L(BID ID: 1274879 is directed to submit draft Mining Plan for the above area within 90 days for the approval of the Assistant Director, Geology and Mining, Perambalur and to submit Environment Clearance obtained from SEIAA, Tamil Nadu and CTE & CTO issued by the Tamil Nadu Pollution Control Board subsequently for further process.

Encl: Map showing the proposal lease area.

02/05/25

Assistant Director,
Geology and Mining,
Perambalur.

To
Thiru.Hariharan. L
(BID ID: 1274879)
No. 9, Dhanalakshmi Street Postal Nagar,
Nemilicheri Chrompet,
Kancheepuram District – 600 044.

Copy to:

1. The Chairman,
   SEIAA Level Environment Impact Assessment Authority,
   Panagal Maligai, Saidapet,
   Chennai.
2. The Commissioner of Geology and Mining, Chennai-32.

ANNEXURE-3

From

Thiru D.Bernard, M.Sc.,
Assistant Director,
Geology and Mining,
Perambalur.

To

Thiru.Hariharan. L
No. 9, Dhanalakshmi Street Postal Nagar,
Nemilicheri Chrompet,
Kancheepuram District – 600 044.

Rc.No.124/G&M/2025, Dated:03.06.2025

Sir,

Sub: Mines and Minerals - Perambalur District – Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands - Thiru.Hariharan. L quoted highest Bid amount (H1) For the quarry in S.F.No.10/1 (Block 2), OAE of 1.40.60 hectares in Padalur(East) Village, Alathur Taluk – Declared as H1 bidder – H1 Bid Amount remitted – Precise Area Communicated – Draft Mining Plan submitted for approval – Approved - Reg.

Ref:
1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
2. Perambalur District Gazette(Extraordinary) Notification No.1, dated:18.02.2025.
3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.124/G&M/2025, dated: 28.03.2025
4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.124/G&M/2025, dated 02.05.2025.
5. Thiru.Hariharan. L, letter dated.12.05.2025.

******

Tender cum Auction for grant of Roughstone quarries in Government lands notified in Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025 was conducted through online as per Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

Thiru.Hariharan. L was declared as Highest Bidder for the quarry in S.F.No. 10/1 (Block 2) to an extent of 1.40.60 hectares in Padalur(East) Village, Alathur Taluk, Perambalur District and the lease period proposed for the subject quarry is 10 years. The Highest Bidder, Thiru.Hariharan. L remitted entire highest bid amount and other statutory documents in time in accordance with rules and in the reference, 4th cited, precise area was communicated to him with a request to submit Mining Plan for the approval of the Assistant Director, Geology and Mining, Perambalur District and Environmental Clearance obtained from SEIAA for further process.

Accordingly, in the reference 5th cited, the successful bidder has submitted 3 copies of Draft Mining Plan prepared by Qualified Person for the above area. The draft Mining Plan submitted by Thiru.Hariharan. L, has been scrutinized as per extant rules and guide lines / instructions issued by the Commissioner of Geology and Mining, Chennai in the letter Rc.No.3868/LC/2012 dated. 19.11.2012. The following observations were made in scrutiny.

a. 10-meter safety distance is earmarked for the adjoining Government lands.

b. The Geological reserve of Roughstone in the subject area has been assessed as 25,91,523 metric tonnes.

c. The mineable reserve has been computed as 9,79,115.50 metric tonnes of Roughstone up to a depth of 81m (61m AGL + 20m BGL)

d. The lease period of the subject Roughstone quarry is 10(ten) years and the mining plan has been prepared accordingly.

e. In the mining plan, it has been proposed for the production of 490798 metric tonnes of Roughstone up to a depth of 56m(above ground level) in the first five years and remaining mineable quantity of 488317 metric tonnes of Roughstone in the second five years of lease period.

f. The depth of water table in the subject area is reported as 67m BGL and workable depth has been proposed upto 20m BGL only in the mining plan. Hence, the quarrying operation will not affect the water table in the area.

g. Drilling and blasting using jack hammers and shot hole blasting are proposed. Small dia, 25mm slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Roughstone. No deep hole drilling or primary blasting is proposed.

h. It has been proposed to adopt controlled blasting measures for minimizing ground vibration and fly rocks.

i. Machineries like Tractor mounted compressor attached with Jack hammers, excavators with rock breaker attachment are proposed for quarrying operation. Tippers of 5/10 Tons capacity are proposed for transportation.

4) The Mining Plan is prepared in accordance with the guidelines / instructions issued and tallies with the field conditions. The special conditions imposed in the precise area communication letter have been incorporated in the Mining Plan. Therefore, the draft mining plan is hereby approved subject to the following conditions.

1. That the Mining Plan is approved without prejudice to any other laws applicable to the quarry area from time to ti0me whether made by the Central Government, State Government or any other authority.

ii. That the approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Regulations and Development) Amendment Act 2015 or Mineral (other than Atomic and Hydrocarbon Energy Minerals) concession Rules 2016, or Tamil Nadu Minor Mineral Concession Rules, 1959 or any other laws including Forest (Conservation) Act 1980, Forest Conservation Rule, 1981, Environment Protection Act, 1980 and the rules made there under.

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

iv. That the approval of Mining Plan does not confer any rights for the renewal of quarry lease.

v. The approval is valid up to the subsistence of the lease period only.

Encl: 2copies of approved Mining Plan.

03/06/25

Assistant Director,
Geology and Mining,
Perambalur.

Copy to:

1. The Chairman,
   SEIAA Level Environment Impact Assessment Authority,
   Panagal Maligai,
   Saidapet,
   Chennai.

   3/6/25

2. The Commissioner of Geology and Mining, Chennai-32.

APPROVAL MINING PLAN

ASST. DIRECTOR OF GEOLOGY AND MINING
PERAMBALUR

MINING PLAN FOR PADALUR (EAST) ROUGH STONE QUARRY

(Prepared Under Rule 8, 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959)

LOCATION OF THE QUARRY LEASE APPLIED AREA

STATE	:	TAMIL NADU
DISTRICT	:	PERAMBALUR
TALUK	:	ALATHUR
VILLAGE	:	PADALUR (EAST)
S.F.NO	:	10/1 (BLOCK-2)
EXTENT	:	1.40.60Ha

FOR

APPLICANT

Thiru.L.Hariharan,
No.9, Dhanalakshmi Street,
Postal Nagar,
Nemilicheri, Chrompet,
Kancheepuram District - 600 044.

ECO-FRIENDLY

SUSTAINABILITY

SAFETY

PREPARED BY

C.Natarajan, M.Sc.,M.Phil.,
Qualified Person
M/s. GLOBAL MINING SOLUTIONS
(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)
PLOT NO. 6, SF NO. 13/2, A2, VS CITY, RC CHETTYPATTY,
KOTTAMETTUPATTY,
OMALUR, SALEM, TAMIL NADU – 636 455
NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110
CONTACT: 97502 23535, 94446 54520
Email: infoglobalmining@gmail.com, globalminingsolutionssalem@gmail.com

QCI

NABET

(PPE)

L.Hariharan,
No.9, Dhanalakshmi Street,
Postal Nagar,
Nemilicheri, Chrompet,
Kancheepuram District - 600 044.

DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

CONSENT LETTER FROM THE APPLICANT

The Mining Plan in respect of **Rough Stone** quarry over an extent of 1.40.60Hectares of Government land in S.F.No.10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State has been prepared by

C.Natarajan, M.Sc., M.Phil.,
Qualified Person

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

C.Natarajan, M.Sc., M.Phil.,
Qualified Person
M/s. GLOBAL MINING SOLUTIONS
(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)
PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty,
Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455
NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110
CONTACT: 97502 23535, 94446 54520

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

Signature of the Applicant

L.Hariharan

Place: Kancheepuram
Date: 03.05.2025

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

L.Hariharan,
No.9, Dhanalakshmi Street,
Postal Nagar,
Nemilicheri, Chrompet,
Kancheepuram District - 600 044.

DECLARATION

The Mining Plan in respect of **Rough Stone** quarry over an extent of 1.40.60Hectares of Government land in S.F.No.10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.

Signature of the Applicant

L.Hariharan

Place: Kancheepuram
Date: 03.05.2025

C.Natarajan, M.Sc., M.Phil.,
Qualified Person
M/s. GLOBAL MINING SOLUTIONS
(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)
PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty,
Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455
NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110
CONTACT: 97502 23535, 94446 54520

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

CERTIFICATE

This is to certify that, the provisions of Minor Minerals Conservation and Development Rules, 2010 (MMCDR) have been observed in the Mining Plan for the grant of **Rough Stone** quarry lease over an extent of 1.40.60 Hectares of Government land in S.F.No.10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State applied by Thiru.L.Hariharan, for fresh quarry lease.

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

Certified
Signature of Qualified Person.

C.Natarajan, M.Sc., M.Phil.,
Qualified Person
C.NATARAJAN M.Sc.,M.Phil.,
Qualified Person

Place: Salem
Date: 05.05.2025

C.Natarajan, M.Sc., M.Phil.,
Qualified Person
M/s. GLOBAL MINING SOLUTIONS
(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)
PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty,
Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455
NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110
CONTACT: 97502 23535, 94446 54520

ASST DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

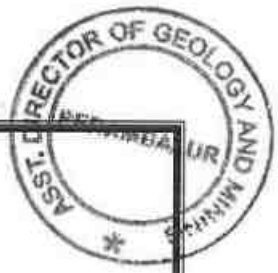
CERTIFICATE

Certified that, in preparation of Mining Plan for **Rough Stone** quarry over an extent of 1.40.60Hectares of Government land in S.F.No.10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State for Thiru.L.Hariharan, covers all the provisions of Mines Act, Rules and Regulations etc. made there under and whenever specific permission are required, the applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

Certified
Signature of Qualified Person.

C.Natarajan, M.Sc., M.Phil.,
Qualified Person
C.NATARAJAN M.Sc.,M.Phil.,
Qualified Person

Place: Salem
Date: 05.05.2025



CERTIFICATE

Certified that I, C.Natarajan, M/s. GLOBAL MINING SOLUTIONS (NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT) Plot No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455 NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110. I am a Post graduate in Geology (M.Sc., Geology) from Annamalai university and more than five years of experience in mining Field.

Rule 15(1)(a) and (b) of Minerals (Other than Atomic, Hydro Carbons Energy Minerals) concession Rules 2016 stipulates the eligibility for preparing Mining Plans as *"(1)(a) a post graduate degree in Geology granted by a university established" and (1)(b) "Professional experience of five years of working in a supervisory capacity in the field of mining after obtaining the degree".* Since my qualification and experience are satisfied the Rule (1)(a) and (1)(b) of 15 of the Said Rules, I am eligible to prepare Mining Plans for both Major and Minor Minerals.

Accordingly I prepared this Mining Plan in respect of Rough Stone quarry lease applied for an extent of 1.40.60Ha of (Government land) in S.F.No.10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, by Thiru.L.Hariharan, for a period of Ten years. Since the Mining Plan is prepared as per the provisions contained in Rule 15(1) (a) and (b) of Minerals (Other than Atomic, Hydro Carbons Energy Minerals) concession Rules 2016, the same may be approved by the Competent Authority.

C.Natarajan, M.Sc., M.Phil.,
Qualified Person

C.NATARAJAN M.Sc.,M.Phil.,
Qualified Person

Place: Salem
Date: 05.05.2025

DEPUTY DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

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Annexure

S. No.	Description	Annexure No.
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2.0	Copy of Tender Document	IA
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LIST OF PLATES

S. No.	Description	Plate No.
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6.0	Quarry lease & Surface plan	II
7.0	Topography, Geological plan and sections	III
8.0	Mineable plan and sections	IV
9.0	Year wise Development and Production Plan & Sections	V
10.0	Second Five Year wise Development and Production Plan & Sections	VA
11.0	Progressive Quarry Closer Plan & Sections	VI
12.0	Conceptual Plan & Sections	VII

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

MINING PLAN FOR MINOR MINERALS

ROUGH STONE

Over an extent of 1.40.60hectares of Government land in S.F.No.10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.

(PREPARED UNDER RULE 8, 41 and 42 OF TNMMCR 1959)

1.0 Introduction and Executive Summary;

1. The present Mining Plan is prepared for Thiru.L.Hariharan, No.9, Dhanalakshmi Street, Postal Nagar, Nemilicheri, Chrompet, Kancheepuram District - 600 044.
2. The application was processed by the Assistant Director, Department of Geology and Mining, Perambalur, and passed an order vide Rc.No.124/G&M/2025, dated 02.05.2025 directing the applicant to produce approved Mining Plan under Rule 41(5) of the Tamil Nadu Minor Mineral Concession Rules, 1959 and Environmental Clearance Certificate under Rule 42 from the State Level Environmental Impact Assessment Authority (SEIAA) for the grant of quarry lease to quarry Rough Stone over an extent of 1.40.60hectares of Government lands in S.F.No.10/1(Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District of Tamil Nadu State for a period of ten years.
3. Accordingly, Mining Plan is prepared under the provisions of rule 8, 41 and 42 as per the amendments under Tamil Nadu Minor Mineral Concession Rules, 1959 by incorporating following the conditions imposed in the precise area communication letter.
   a) 10 meter safety distance should be left out for the adjacent government lands.
   b) The applicant shall not make any hindrance to the adjacent lands and public.

c) The applicant should submit approved mining plan, environment clearance and consent to establish (CTE) & consent to operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.

4. Geological Resources is estimated at 25,91,523Ts of Rough stone and 22,648Ts of Topsoil and Mineable Reserves is estimated at 9,79,115.50Ts of Rough Stone and 15,344Ts of Topsoil and after leaving necessary safety distance from the lease boundary as indicated in the precise area letter and relevant mining laws in force.
5. The production Schedule is proposed production of 4,90,798Ts of Rough Stone and 15,344Ts of Topsoil for the period of first five years upto a depth of 56m (above ground level) and remaining quantity of 4,88,317.50Ts of Rough Stone will be proposed for the period of second five years upto a depth of 81m (61m above ground level and 20m below ground level).
6. The applicant ensured that, child labours under 18 years of age will not be engaged for quarrying operation.
7. The applicant ensure that will engage should have valid certified persons (Mines Manager, Foreman, Mate) during quarrying operation.
8. Environmental parameters,

i) The area does not attract the Forest Conservation Act, 1980 as there is no forest around 3.0Km radius.

ii) There is no interstate boundary around 10kms radius.

iii) There is no wild life animal sanctuary within 10Kms radius from the project site area under the Wildlife (Protection) Act, 1972.

Therefore the project seeks clearance only from State Level Environmental Impact Assessment Authority (SEIAA).

9. Environmental measures to be adopted shall be,

i) Dust Control at source while drilling and blasting,

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

iii) Noise Control in blasting, control of fly rock missiles and vibration by doing peak particle velocity with in standard as prescribed by the DGMS and MOEF.

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

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

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

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

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

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

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

EXECUTIVE SUMMARY:

a.	Name of the Village Panchayat	:	Padalur (East)
b.	Name of the Panchayat Union	:	Alathur
c.	The proposed total Minable Reserves	:	9,79,115.50Ts of Rough Stone 15,344Ts of Topsoil
d.	The proposed quantity of reserves (level of production) for Five years to be mined is (Recoverable reserves)	:	4,90,798Ts of Rough Stone 15,344Ts of Topsoil
e.	Total extent of the area	:	1.40.60Ha
f.	Proposed Period of mining	:	Five Years
g.	Existing depth	:	5m (above ground level)
h.	Proposed Depth of mining	:	56m (above ground level) for the proposed mining plan.
i.	Method of mining/level of mechanization	:	Opencast, Semi-mechanized Mining with a bench height of 5m and bench width of 5m proposed.
j.	Types of Machineries used in the quarry	:	Machineries like Tractor mounted compressor attached with Jack hammers, Excavators are proposed to deploy for quarrying operation.
k.	Cost of the Project A. Fixed Assets Cost B. Operational Cost C. EMP Cost		Rs.8,33,00,000/- Rs. 82,00,000/- Rs. 6,10,000/- Total Project cost(A+B+C)=**Rs. 9,21,10,000/**
l.	The area applied for lease is bounded by four corners and the coordinates are clearly marked in plate no II.		

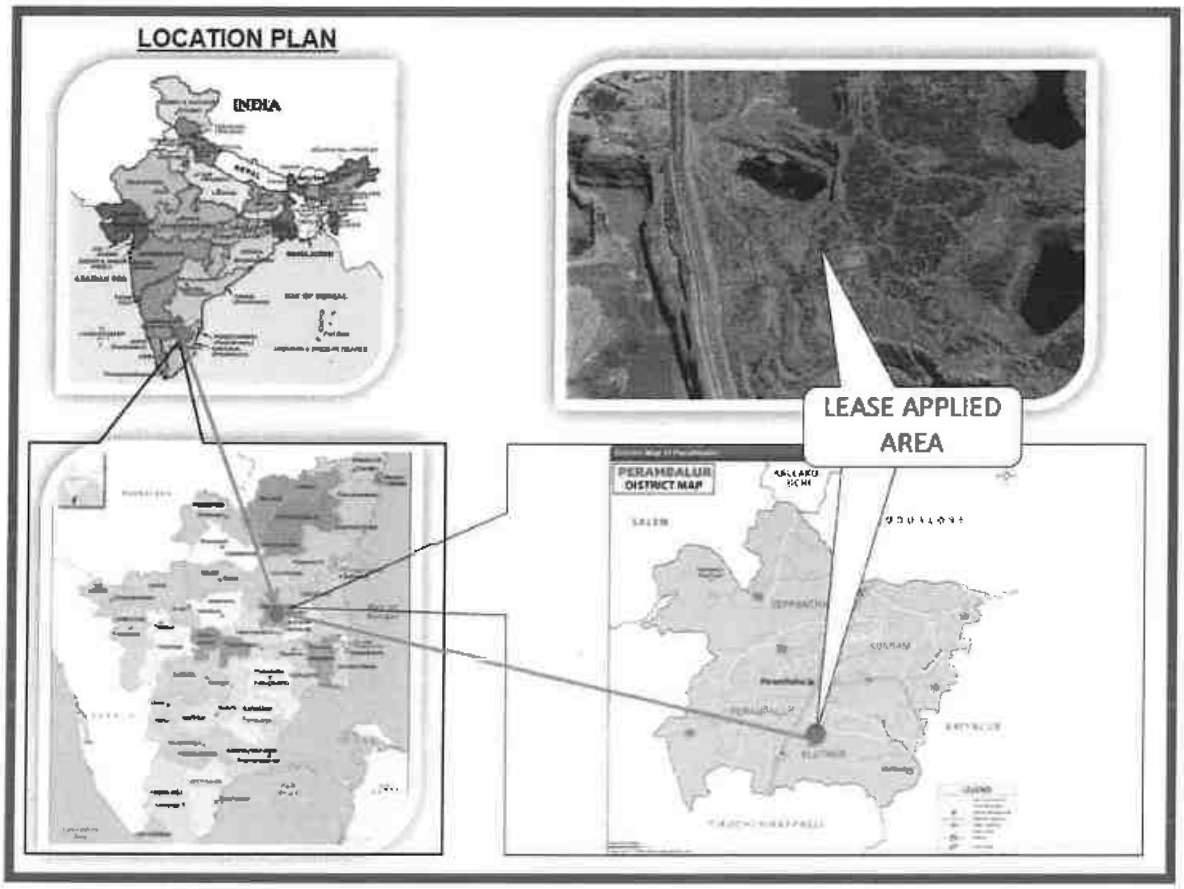
Corners	Co- ordinates		Distance between the corners		
	Latitude	Longitude			
1	11° 06' 59.57"N	78° 50' 26.02"E	1-2	=	185.0m
2	11° 07' 00.71"N	78° 50' 32.02"E	2-3	=	76.0m
3	11°06' 58.28" N	78° 50' 32.47"E	3-4	=	185.0m
4	11° 06' 57.13"N	78° 50' 26.51"E	4-1	=	76.0m

2.0 General Information:

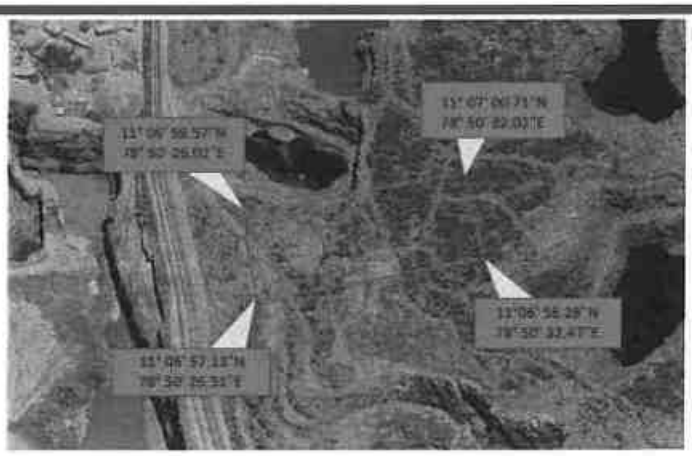
	a.	Name of the Applicant	:	Thiru.L.Hariharan,
	b.	Address of the Applicant with phone No and e-mail id if any	:	No.9, Dhanalakshmi Street, Postal Nagar, Nemilicheri, Chrompet, Kancheepuram District - 600 044. Cell No.: 73587 71411
	c.	Status of the Applicant	:	Individual
2.2	a.	Mineral Which the applicant intends to mine	:	Rough Stone.
	b.	Precise area communication letter No.	:	Precise area communication letter received from the Assistant Director, department of Geology and Mining, Perambalur vide Rc.No. 124/G&M/2025, dated 02.05.2025
	c.	Period of permission / lease granted	:	The Assistant Director, Department of Geology and Mining, Perambalur, has grant of lease Period for **ten years.**
	d.	Name and Address of the QP preparing Mining Plan	:	**C.Natarajan, M.Sc.,M.Phil.,** **Qualified Person** **M/s. GLOBAL MINING SOLUTIONS** (NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT) PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455 NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110 Contact: 97502 23535, 94446 54520.

3.0 Location:

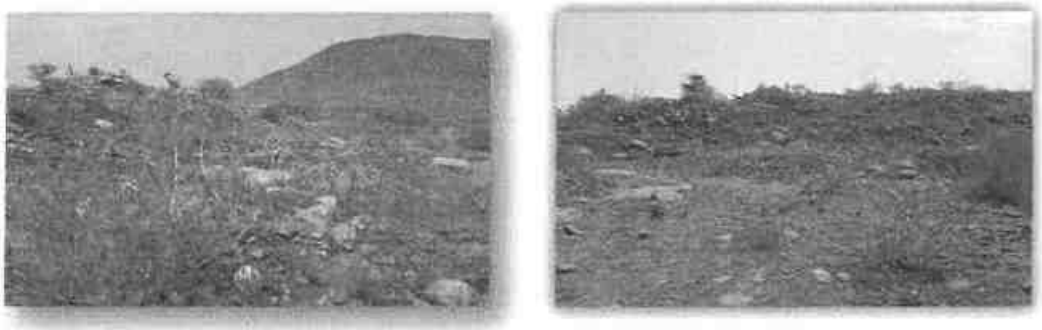
S.No	Details of the Area:	
1	Corner Coordinates	Latitude : 11°06'57.13"N to 11°07'00.71"N Longitude : 78°50'26.02"E to 78°50'32.47"E
2	Toposheet Number	58 I/16
3	The altitude of the area	185m (MSL)
4	Extent	1.40.60Ha
5	Survey No	S.F.No. 10/1(Block-2)
6	Village	Padalur (East)
7	Taluk	Alathur
8	District	Perambalur
9	State	Tamil Nadu



a.	Classification of the Area (Ryotwari / poramboke / others)	:	Government poramboke land
b.	Ownership / Occupancy of the Applied area (Surface rights)	:	It is Government land the applicant has obtained tender from the Government Please refer annexure no –I and IA.
c.	Toposheet No. with Latitude and Longitude	: : :	Topo Sheet No: 58 I/16 Latitude : 11°06'57.13"N to 11°07'00.71"N Longitude: 78°50'26.02"E to 78°50'32.47"E
d.	Existence of Public Road / Railway line if any nearby the area and approximate distance	:	There is an existing road from the area leads to Alathur – Padalur (West) road on west side of the area. The Nearest Railway line is Trichy – Ariyalur line which is about 19.7Km on southeastern side of the area.



SATELLITE IMAGERY OF THE LEASE APPLIED AREA



TOPOGRAPHICAL VIEW OF THE LEASE APPLIED AREA

PART - A

4.0 Geology and Mineral Reserves:

4.1	a.	Topography	:	➢ The area applied for quarry lease is exhibits hilly terrain covered by covered by Topsoil formation. The massive Charnockite formation is noticed below 1m (Avg) Topsoil and sloping towards west side of the area, the altitude of the area is above 185m (maximum) from MSL. ➢ No major river is found nearby the lease applied area. ➢ Water table is found at a depth of 67m in summer and 64m in rainy seasons. ➢ Temperature of the area is reported to be 18°C to a maximum of 42°C during summer. ➢ Rainfall of this area is about 800mm to 900 mm during the both NE & SW monsoons.
	b.	General Geology of the Area	:	The area is underlain by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the district are Archaean rocks like Gneisses, Granites, Charnockites basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite. The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock.

				The strike of the Charnockite formation is N30°W-S30°E with vertical dipping. The general geological succession of the area is given as under. **AGE** - **ROCK TYPE** Recent - Topsoil Unconformity Archaean - Dolerite dyke Charnockite. Peninsular Gneissic complex and Calc Gneiss
4.2		Details of Exploration already carried out if any	:	No exploration was carried out, as the Rough stone formations are clearly visible from adjacent existing quarry pit.
4.3	a.	Estimation of Reserves	:	The Geological and Recoverable reserves are estimated by cross sectional method. Two sections have been drawn, one section drawn length wise as (X-Y) and another one section drawn width wise as (A-B), to cover maximum area considered for lease. The Plans and Sections have been drawn with a scale of 1:1000 and 1:500 respectively. Please refer plate No.III.

a. Geological Resources

The quarrying is restricted up to a depth of 81m (61m above ground level and 20m below ground level) only. Availability of resources is given below.

Table No-1

Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Topsoil m^3	Rough stone in m^3	Bulk Density	Topsoil in Ts	Geological Resources of Rough stone in Ts
XY-AB	Above Ground Level	I	12	21	1	-	252	2.75	-	693.00
		II	22	21	4	-	1848	2.75	-	5082.00
			22	76	1	-	1672	2.75	-	4598.00
		III	46	76	5	-	17480	2.75	-	48070.00
		IV	57	76	5	-	21660	2.75	-	59565.00
		V	57	76	5	-	21660	2.75	-	59565.00
		VI	57	76	5	-	21660	2.75	-	59565.00
		VII	57	76	5	-	21660	2.75	-	59565.00
		VIII	57	76	5	-	21660	2.75	-	59565.00
	Below Ground Level	IX	57	76	5	-	21660	2.75	-	59565.00
		X	57	76	5	-	21660	2.75	-	59565.00
		XI	57	76	5	-	21660	2.75	-	59565.00
		XII	57	76	5	-	21660	2.75	-	59565.00
Total						**-**	**216192**	-	**-**	**594528.00**
XY-CD	Above Ground Level	I	149	76	1	11324	-	2	22648	-
		II	78	76	5	-	29640	2.75	-	81510.00
		III	93	76	5	-	35340	2.75	-	97185.00
		IV	100	76	5	-	38000	2.75	-	104500.00
		V	105	76	5	-	39900	2.75	-	109725.00
		VI	116	76	5	-	44080	2.75	-	121220.00
		VII	129	76	5	-	49020	2.75	-	134805.00
		VIII	129	76	5	-	49020	2.75	-	134805.00

		IX	129	76	5	-	49020	2.75	-	134805.00
		X	129	76	5	-	49020	2.75	-	134805.00
		XI	129	76	5	-	49020	2.75	-	134805.00
		XII	129	76	5	-	49020	2.75	-	134805.00
		XIII	129	76	5	-	49020	2.75	-	134805.00
	Below Ground Level	XIV	129	76	5	-	49020	2.75	-	134805.00
		XV	129	76	5	-	49020	2.75	-	134805.00
		XVI	129	76	5	-	49020	2.75	-	134805.00
		XVII	129	76	5	-	49020	2.75	-	134805.00
Total						**11324**	**726180**	-	**22648**	**1996995.00**
Grand Total						**11324**	**942372**	-	**22648**	**2591523.00**

Topsoil Formation : 22,648Ts

The Geological Resources of Rough stone : 25,91,523 Ts

b. <u>Already excavated</u>

The area has been quarried in earlier operation the existing pit dimension are given below

Table No-2

Pit No	length (Max) in(m)	Width (Avg) in (m)	Depth (Max) in (m)
I	88	48	5m (above ground level)

c. Available Mineable Reserve

The available mineable reserve calculated by deducting 10m safety distance and bench loss.

Table No-3

Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Topsoil in m^3	Rough stone in m^3	Bulk Density	Topsoil in Ts	Mineable Reserves of Rough stone in Ts
XY-AB	Above Ground Level	II	22	56	1	-	1232	2.75	-	3388.00
		III	44	56	5	-	12320	2.75	-	33880.00
		IV	39	56	5	-	10920	2.75	-	30030.00
		V	34	56	5	-	9520	2.75	-	26180.00
		VI	29	56	5	-	8120	2.75	-	22330.00
		VII	24	56	5	-	6720	2.75	-	18480.00
		VIII	19	56	5	-	5320	2.75	-	14630.00
	Below Ground Level	IX	14	56	5	-	3920	2.75	-	10780.00
		X	9	56	5	-	2520	2.75	-	6930.00
Total						**-**	**60592**	-	**-**	**166628.00**
XY-CD	Above Ground Level	I	137	56	1	7672	-	2	15344	-
		II	66	56	5	-	18480	2.75	-	50820.00
		III	75	56	5	-	21000	2.75	-	57750.00
		IV	77	56	5	-	21560	2.75	-	59290.00
		V	78	56	5	-	21840	2.75	-	60060.00
		VI	83	56	5	-	23240	2.75	-	63910.00
		VII	91	56	5	-	25480	2.75	-	70070.00
		VIII	86	56	5	-	24080	2.75	-	66220.00
		IX	81	56	5	-	22680	2.75	-	62370.00
		X	76	56	5	-	21280	2.75	-	58520.00
		XI	71	56	5	-	19880	2.75	-	54670.00
		XII	66	56	5	-	18480	2.75	-	50820.00

		XIII	61	56	5	-	17080	2.75	-	46970.00
	Below Ground Level	XIV	56	56	5	-	15680	2.75	-	43120.00
		XV	51	46	5	-	11730	2.75	-	32257.50
		XVI	46	36	5	-	8280	2.75	-	22770.00
		XVII	36	26	5	-	4680	2.75	-	12870.00
Total						**7672**	**295450**	-	**15344**	**812487.50**
Grand Total						**7672**	**356042**	-	**15344**	**979115.50**

The available mineable reserve is computed as 9,79,115.50Ts of Rough stone and 15,344Ts of Topsoil upto a depth of 81m (61m above ground level and 20m below ground level) only.

5.0	**Mining:**		
5.1	Method of Mining	:	1. Opencast method of semi mechanized mining with 5.0m height 5m width the bench. 2. However, as far as the quarrying of Rough stone is concerned, observance of the provisions of Regulation 106(2) (b) as above is seldom[possible due to various inherent petrogenetic factors coupled with mining difficulties. Hence it is proposed to obtain relaxation to the provisions of the above regulation from the Director of mines safety for which necessary provision is available with the regulation 106 (2) (b) of MMR-1961, under Mine Act-1952.
5.2	Mode of Working	:	The rough stone is proposed to quarry 5m bench height, 5m width with conventional opencast semi-Mechanized method. The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough stone to the needy crusher/other buyers. The production of Rough stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining. Splitting of rock mass of considerable volume from the parent rock mass by jackhammer drilling and blasting, hydraulic excavators are used for loading the Rough Stone from pithead to the needy crusher/other buyers. Occasionally hydraulic excavators are attached with rock breakers for fragmentation to avoid secondary blasting. 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 semi mechanized method of mining.
5.3	Proposed bench height & Width	:	Quarrying of Rough Stone is proposed bench height of 5m and bench width of 5m.
5.4	Details of Overburden / Mineral Production proposed for the first 5 years.	:	There is overburden in the form of topsoil, after excavation of topsoil will be utilized for afforestation purpose. The excavated rough stone will be directly loaded into tipper to the needy crusher/other buyers.

The Yearwise Production and Development Table

Table No –4

Year	Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Topsoil m^3	Rough stone in m^3	Bulk Density	Topsoil in Ts	Mineable Reserves of Rough stone in Ts
I	XY-CD	Above Ground Level	I	137	56	1	7672	-	2	15344	-
			II	66	56	5	-	18480	2.75	-	50820.00
			III	61	56	5	-	17080	2.75	-	46970.00
Total							**7672**	**35560**	**-**	**15344**	**97790.00**
II	XY-CD	Above Ground Level	III	14	56	5	-	3920	2.75	-	10780.00
			IV	34	56	5	-	9520	2.75	-	26180.00
			V	35	56	5	-	9800	2.75	-	26950.00
			VI	40	56	5	-	11200	2.75	-	30800.00
			VII	5	56	5	-	1400	2.75	-	3850.00
Total							**-**	**35840**	**-**	**-**	**98560.00**
III	XY-CD	Above Ground Level	VII	43	56	5	-	12040	2.75	-	33110.00
			VIII	36	56	5	-	10080	2.75	-	27720.00
	XY-AB	Above Ground Level	II	22	56	1	-	1232	2.75	-	3388.00
			III	44	56	5	-	12320	2.75	-	33880.00
Total							**-**	**35672**	**-**		**98098.00**
IV	XY-CD	Above Ground Level	VII	7	56	5	-	1960	2.75	-	5390.00
			IX	38	56	5	-	10640	2.75	-	29260.00
			X	9	56	5	-	2520	2.75	-	6930.00
	XY-AB	Above Ground Level	IV	39	56	5	-	10920	2.75	-	30030.00
			V	34	56	5	-	9520	2.75	-	26180.00
Total							**-**	**35560**	**-**	**-**	**97790.00**

V	XY-CD	Above Ground Level	X	24	56	5	-	6720	2.75	-	18480.00
			XI	28	56	5	-	7840	2.75	-	21560.00
			XII	23	56	5	-	6440	2.75	-	17710.00
	XY-AB	Above Ground Level	VI	29	56	5	-	8120	2.75	-	22330.00
			VII	24	56	5	-	6720	2.75	-	18480.00
Total							**-**	**35840**	**-**	**-**	**98560.00**
Grand Total							**7672**	**178472**	**-**	**15344**	**490798.00**

The applicant has proposed to carry out 4,90,798Ts of Rough stone and 15,344Ts of Topsoil formation upto a depth of 56m (above ground level) for the period of first five years and remaining quantity of 4,88,317.50Ts of Rough Stone will be proposed for the period of second five years upto a depth of 81m (61m above ground level and 20m below ground level).

The proposed tentative yearwise production for 6th to 10th year is given below

Table No-5

Year	Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Rough stone in m^3	Bulk density	Mineable Reserves of Rough stone in Ts
VI	XY-CD	Above Ground Level	IV	43	56	5	12040	2.75	33110.00
			V	43	56	5	12040	2.75	33110.00
			VI	37	56	5	10360	2.75	28490.00
Total							**34440**		**94710.00**
VII	XY-CD	Above Ground Level	VI	6	56	5	1680	2.75	4620.00
			VII	43	56	5	12040	2.75	33110.00
			VIII	43	56	5	12040	2.75	33110.00
			IX	36	56	5	10080	2.75	27720.00
Total							**35840**		**98560.00**
VIII	XY-CD	Above Ground Level	IX	7	56	5	1960	2.75	5390.00
			X	43	56	5	12040	2.75	33110.00
			XI	43	56	5	12040	2.75	33110.00
			XII	34	56	5	9520	2.75	26180.00
Total							**35560**		**97790.00**
IX	XY-CD	Above Ground Level	XII	9	56	5	2520	2.75	6930.00
			XIII	61	56	5	17080	2.75	46970.00
		Below Ground Level	XIV	25	56	5	7000	2.75	19250.00
	XY-AB	Above Ground Level	VIII	19	56	5	5320	2.75	14630.00
		Below Ground Level	IX	14	56	5	3920	2.75	10780.00
Total							**35840**		**98560.00**
X	XY-CD	Below Ground Level	XIV	31	56	5	8680	2.75	23870.00
			XV	51	46	5	11730	2.75	32257.50
			XVI	46	36	5	8280	2.75	22770.00
			XVII	36	26	5	4680	2.75	12870.00
	XY-AB	Below Ground Level	X	9	56	5	2520	2.75	6930.00
Total							**35890**		**98697.50**
Grand Total							**177570**		**488317.50**

5.5		Machineries to be used		
	a.	Drilling	:	It is proposed to use following machineries for quarrying rough stone

S.No	Type	Nos	Dia Hole mm	Size Capacity	Make	Motive power
1	Jack hammer	4	32	1.2m to 6m	Atlas Copco	Compressed air
2	Compressor	1	-	-	Atlas Copco	Diesel Drive

	b.	Loading	:	Excavator of 0.90m^3 bucket capacity (with Rock breaker attachment) (2No).
	c.	Transportation	:	Tipper 4Nos (10/20Ts) capacity.
5.6		Disposal of Overburden	:	The overburden in the form of topsoil, after excavation topsoil will be preserved along the boundary barrier utilized for afforestation purpose.
5.7		Brief Note on Conceptual Mining Plan for the entire lease period	:	Conceptual Mining Plan is prepared with an object of ten years of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructures etc. Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc. Ultimate Pit dimension is given as under,

Ultimate Pit dimension (M) end of Mining plan Period			
Pit No	Length (max) in (m)	Width (Avg) in (m)	Depth(max) in(m)
I	165	56	56m (above ground level)
Ultimate pit dimension End of the lease period			
Pit No	Length (max) in (m)	Width (Avg) in (m)	Depth(max) in(m)
I	165	56	81m (61m above ground level and 20m below ground level)

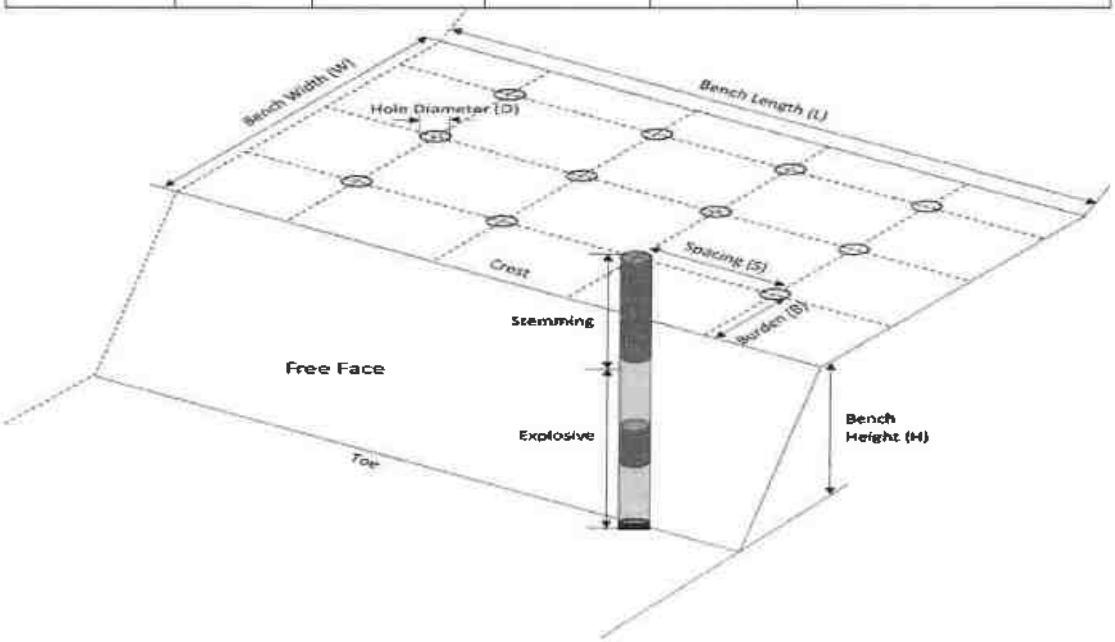
Afforestation has been proposed on all along the boundary barrier by planting trees.

All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms.

6.0 Blasting:

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

Diameter of the hole	Spacing	Depth	Burden for hole	Pattern of hole	Inclination of hole
32-36mm	0.6m	1 to 1.5m	0.6m	Zig Zag	70^0 from the horizontal



6.2	Types of Explosives	:	Small dia, 25mm slurry explosive are proposed to be used for shattering and heaving effect for removal and winning of Rough stone. No deep hole drilling or primary blasting is proposed.

6.3	Measures proposed to minimize ground vibration due to blasting	:	➢ Controlled blasting measures will be adopted for minimizing ground vibration and fly rock. ➢ Shallow depths jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive mainly to give shattering effect in rough stone for easy excavation and to control fly rock.

Number of holes	:	108
Powder factor	:	6Ts/Kg of explosives
Total explosive required	:	54Kg slurry explosives
Charge / hole	:	0.5Kg
Blasting time	:	12-2 Pm

6.4	Storage of Explosives and safety measures to be taken while blasting.	:	➢ The applicant will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory foreman/ mines manager. ➢ ***The applicant ensure that will appoint the Mate (Should have Valid Blaster Certificate) during Blasting Operation.***

7.0 Mine Drainage:

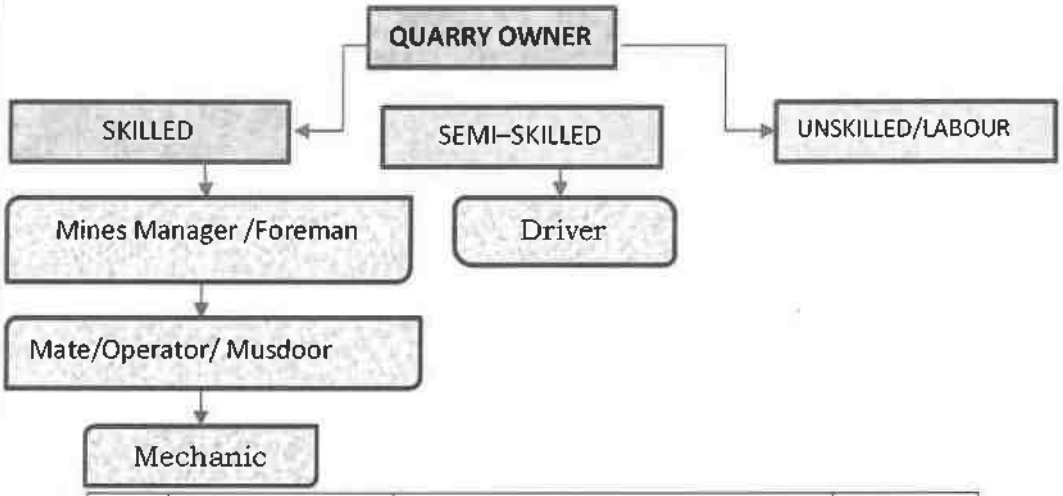
7.1	Depth of Water table	:	The ground water table is reported as 67m below ground level. In the proposed mining plan only 56m (above ground level) for the proposed mining plan period and 81m (61m above ground level and 20m below ground level) depth has been envisaged as workable depth for safe & economic quarrying for the entire lease period. Hence the quarrying operation may not affect the ground water.
7.2	Arrangement and Places where the mine water is finally proposed to be discharged	:	The ground water may not rise immediately in this type of mining. However, the rain water percolation and collection of water from the seepage shall be less than 300lpm and it shall be pumped about periodically by a stand by diesel powered Centrifugal pump motivated with 7.5H.P.Motor. The quality of water is potable and it is not contaminated with any hazardous things. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water stored in the old pit will also be used for plantation purposes

8.0	**Other Permanent Structures:**		
8.1	Habitations / Village	:	There are no habitations within a radius of 300m.
8.2	Power lines (HT/LT)	:	There is no Power lines (HT/LT) within a radius of 50m.
8.3	Water bodies (River, Pond, Lake, Odai, Channel etc)	:	There is Tank situated on southern side and is 320m away from the area.
8.4	Archeological / Historical Monuments	:	There are no Archeological / Historical Monuments within a radius of 300m.
8.5	Road (NH, SH, Village Road etc)	:	The National Highway (NH-38) Viluppuram – Trichy is about 0.8km on northwest side of the area. The State Highway (SH-142) Perambalur – Thuraiyur is about 12.1Km on northwest side of the area.
8.6	Places of Worship	:	There are no Places of Worship within a radius of 50m.
8.7	Reserved Forest / Forest / Social Forest / Wild Life Sanctuary etc.,	:	There are no Reserved forest / Wild Life Sanctuary within a radius of 1Km.
8.8	Any Interstate Border, Protected areas under the Wild Life (Protection) Act, 1972, Critically Polluted Areas as Identified by Central Pollution Control Board and Notified Eco sensitive areas	:	There are No inter State border within a radius of 10kms.
8.9	Any Other Structures	:	Nil

9.0 Employment Potential & Welfare Measures:

9.1 Employment Potential (Management & Supervisory personal)

The proposed organization chart



1.	Skilled	Mines Manager	1 No.
		Foreman / Mate	2 No.
		Operator	10 No.
		Mechanic	1 No.
2.	Semi-skilled	Driver	4 No.
3.	Unskilled	Labours	15Nos
		Total =	33Nos

Allowing 10% absentee, the no. of men of roll will be around 29.

The above man power is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and to comply the statutory provisions of Mines Safety Regulations.

- **It is been ensured that, child labours under 18 years of age will not be engaged for quarrying operation.**
- **Necessary life insurance policies will be taken by the applicant to all the employees up to the end of the lease period.**

9.2 Welfare Measures

	a.	Drinking Water	:	Packaged drinking water is available from the nearby approved water vendors in Alathur Village which is about 1.3km on northwest side of the area.
	b.	Sanitary facilities	:	Semi-permanent latrines & urinals shall be maintained at convenient places for use of labours as per the provisions of Rule (33) of the Mines Rules, 1960 separately for males and females. Washing facilities shall also be arranged as per rule (36) of the Mines Rules, 1960.

	c.	First Aid Facility	:	First aid kits are kept in Mines office room, in case of such eventualities the victim will be given first aid immediately at the site and injured person will be taken to the hospital. Hospital is available at distance of 12.5Km (North) in Perambalur the competent and Statutory foreman/ permit manager will be in charge of first aid.
	d.	Labour Health	:	As per Mines Rule, Periodic medical examination related to occupational health safety will be conducted to all the workers in applicant's own cost.
	e.	Precautionary safety measures to the Labourers:		

Safety provisions like helmet, goggles, safety shoes, Dust mask, Ear muffs etc., have to be provided as per the circulars and amendments made for Mine labours under the guidance of DGMS being a mechanized operation.

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

PART – B

10.0 Environmental Management Plan:

10.1 Existing Land Use Pattern :

1. The area is exhibits hilly terrain covered by topsoil formation.
2. Quarrying operation is proposed up to a depth of 56m (above ground level) for the proposed mining plan period.
3. Fluctuation of Water table in this area is in between 67m and 64m during a year.
4. This region receives the average annual rainfall of 800mm to 900mm. The surrounding area is practiced by the seasonal cultivation.

The existing land use pattern is given as under.

Table No-6

Sl. No.	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)
1.	Quarrying Pit	0.42.20	0.92.50
2.	Infrastructure	Nil	0.01.00
3.	Roads	Nil	0.01.00
4.	Green Belt	Nil	0.46.10
5.	Unutilized	0.98.40	Nil
	Total =	**1.40.60**	**1.40.60**

10.2 Water Regime :

Water table in this area is noticed at a depth of 67m and presently, in the proposed mining plan only 56m (above ground level) for the proposed mining plan period and 81m (61m above ground level and 20m below ground level) has been envisaged as workable depth for safe & economic quarrying for the entire lease period. hence, it will not affect the ground water depletion of this area.

10.3 Flora and Fauna :

Except acacia bushes, no other valuable trees are noticed in the applied area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.

10.4 Climatic conditions :

Generally subtropical climatic condition prevails throughout the year and there is no sharp variation in climate.

This District receives rain both in south west and north east monsoon.

The average rainfall is about 800mm to 900mm and the temperature ranges from 18°C during winter and to a maximum of 42°C during the summer.

<table>
<tr><td>10.5</td><td>Human Settlement</td><td>:</td><td>The nearest habitations with the population is given as under.
Table No-7<table><tr><th>S. No</th><th>Name of the Village</th><th>Approximate distance & Direction from lease applied area</th><th>Approximate population</th></tr><tr><td>1.</td><td>Pudhukurichi</td><td>3.0km - NE</td><td>500</td></tr><tr><td>2.</td><td>Alathur</td><td>1.3km – NW</td><td>1500</td></tr><tr><td>3.</td><td>Padalur</td><td>1.2Km-SE</td><td>400</td></tr><tr><td>4.</td><td>Padalur West</td><td>2.5km-SW</td><td>2000</td></tr></table></td></tr>
<tr><td>10.6</td><td>Plan for Air, Dust Suppression</td><td>:</td><td>Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc., will be suppressed by periodical wetting of land by water spraying. Wet drilling and dust extractor arrangements will be provided to drilling units so as to control raise of dust from the site of drilling. Operators, those exposed directly to such conditions will be provide such protective equipment like mask, ear plug, helmet, gloze etc., as per the Mines Act.</td></tr>
<tr><td>10.7</td><td>Plan for Noise Control</td><td>:</td><td>Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise will be very minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site. Nowhere the noise level should exceed the permissible limit of 80db during the quarry working hours.</td></tr>
<tr><td>10.8</td><td>Environmental Impact Assessment Statement Describing Impact on mining on the next Five years</td><td>:</td><td>The mining plan proposed is for a small production of Rough stone without involving deep hole drilling and heavy blasting. Such limited mining activity is not likely to cause any impact adversely on environment as far as pollution of air, water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF.</td></tr>
<tr><td>10.9</td><td>Proposal for Waste Management</td><td>:</td><td>There is no waste anticipated in this rough stone quarry operation.</td></tr>
</table>

10.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	:	In the proposed mining plan 56m (above ground level) for the proposed mining plan period and 81m (61m above ground level and 20m below ground level) has been envisaged as workable depth for safe & economic mining during the lease period. Hence, after quarry reaches ultimate pit limit (for this lease period) of 81m depth, fencing will be constructed around the quarried pits to prevent inherent entry of the public and cattle.
10.11	Program for Afforestation	:	The 10m safety distance along the lease boundary has been identified to be utilized for afforestation Appropriate native species of Neem/Pungan trees will be planted in the first year. Nearly 4610Sqm area is proposed to use under afforestation by planting 553nos of Neem/Pungan trees during first year with an anticipated survival rate of 80%. The Quarry landuse, layout and afforestation plan is shown in Plate No.III.
10.12	Proposed Financial Estimate / Budget for (EMP) Environment Management		
	A. Fixed Asset Cost: 1. Land Cost (Tender amount) 2. First aid room and accessories 3. Labour Shed 4. Sanitary Facility **Total=**		 Rs.8,30,00,000 Rs. 1,00,000 Rs. 1,00,000 Rs. 1,00,000 **Rs.8,33,00,000/-**
	B. Operational Cost: 1. Machineries 2. Fencing cost **Total**	 : : :	 Rs.80,00,000- Rs. 2,00,000 **Rs.82,00,000/-**

	C.EMP Cost:	:	Budget Provision for the entire quarrying period. Air Quality Sampling = Rs. 40,000/- Water Quality Sampling = Rs. 40,000/- Noise Monitoring = Rs. 20,000/- Ground vibration test = Rs. 20,000/-
	Expenditure 1. Drinking water facility 2. Sanitary Arrangements 3. Safety kids 4. Water sprinkling 5. Afforestation **Total=**	: : : : :	 Rs.1,50,000/- Rs. 50,000/- Rs. 50,000/- Rs. 1,50,000/- Rs. 90,000/- **Rs. 6,10,000/-**
	Total Project Cost (A+B+C)	:	**Rs. 9,21,10,000/-**
	CSR Cost(2% of Total Project Cost)	:	**Rs. 18,42,200/-**

11.0 Mine Closure Plan:

11.1	Steps proposed for phased restoration, reclamation of already mined out area.	:	There is no proposal for back filling, reclamation and rehabilitation. The quarried pits after the end of the life of lease will be fenced to prevent inherent entry of public and cattles.
11.2	Measures to be under taken on mine closure as per Act & Rules	:	Measures will be taken as per the Acts and Rules. The quarried pit will be fenced by using Barbed wire fencing to prevent inherent entry of public and cattle.
11.3	Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area	:	Mitigation measures: Drilling will be carried out by wet drilling mode to control the dust propagation into the air. Blasting will be carried out on limited scale. Mist Water spraying on haul road is proposed to prevent the dust propagation into the air.

ASST. DIRECTOR OF GEOLOGY AND MINING
PERAMBALUR

12.0 Any Other Details Intend to Furnish by the Applicant:

(i) Permission will be obtained from the District Mines Office to extract the Rough Stone from the Boundary barriers and for slopes.

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

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

(iv) The Mining Plan is prepared by incorporating the conditions stipulated in the precise area communication issued and relevant mining laws in force.

(v) Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

Prepared by

C.Natarajan, M.Sc.,M.Phil.,
Qualified Person

C.NATARAJAN M.Sc.,M.Phil.,
Qualified Person

Place : Salem
Date : 05.05.2025

This Mining Plan is Approved Subject to the Conditions mentioned & Indicated to the Mining Plan approval Letter No..124/(Gsm)/25 dt:03.06.25.... Office of the A.D.Geology & Mining Perambalur

This mining plan is approved without prejudice to any other legal stipulations and as per the G.O.(Ms) No.79, Industries (MMC1) Department Dt 06.04.2015 and subject to further fulfillment of the condition laid down under TNMMC R 1959

03/06/25

Assistant Director
Dept. of Geology and Mining
Perambalur District.

3/6/25

ANNEXURE I

Rc.No.124/G&M/2025, Dated:02.05.2025

Department of Geology & Mining,
Collectorate,
Perambalur - 621212.

ASST. DIR. GEOLOGY AND MINING PERAMBALUR

PRECISE AREA COMMUNICATION LETTER

Sub : Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025_CGAM_525779_1 - Thiru.Hariharan. L(BID ID: 1274879) quoted highest Bid amount (H1) For the quarry listed in Serial Number 24 - Declared as H1 bidder - H1 Bid Amount remitted - Solvency Certificate submitted - Precise Area Communicated - Reg.

Ref:
1. G.O.(Ms).No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
2. Perambalur District Gazette(Extraordinary) Notification No.1, dated:18.02.2025.
3. E-Tender published under Tender ID:2025_CGAM_525779_1 in Tamil Nadu Governmente-tender portal.
4. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.124/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)
5. Remittance challan No. 20250329001580 dated: 29.03.2025 submitted by Thiru.Hariharan. L(BID ID: 1274879).
6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.124/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)
7. Remittance challan No. 20250429014982 dated.29.04.2025 submitted by Thiru.Hariharan.L(BID ID: 1274879).

******

I invite your attention to the references cited above

Notice Inviting Tender (NIT) was published vide Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025, inviting applications for grant of rough stone quarry leases in Government poramboke lands in Perambalur District through e-Tender cum Auction. Online tender was published in Tamil Nadu Government e-tender portal (https://tntenders.gov.in/) under Tender ID: 2025_CGAM_525779_1 and e-Auction was conducted 27.03.2025 for bidders whos' bids were qualified technically and financially.

After Financial Evaluation, Thiru.Hariharan. L(BID ID: 1274879) was declared as H1 bidder for the quarry listed in Serial Number 24 of the Gazette as he quoted highest bid amount of Rs. 8,30,00,000/- for the said quarry. The H1 bidder was directed to remit 10% of the Highest bid amount vide notice in the reference 4th cited and accordingly, the H1 bidder has remitted 10% of the bid amount to a sum of Rs.83,00,000/- and submitted remittance challan No.20250329001580 dated: 29.03.2025 to this office.

Subsequently, Thiru.Hariharan. L(BID ID: 1274879) was directed to remit the remaining 90% of Highest bid amount after adjusting the Bid Security already paid by him within one month to Government head of account and to submit original remittance challan to this office. Accordingly, Thiru.Hariharan. L(BID ID: 1274879) has remitted Rs. 7,16,91,730/-after deducting Rs.30,08,270/-(the Bid Security amount already paid by the bidder) in Government account within one month and submitted remittance challans to this office.

The details of H1 Bidder for the quarry listed in Serial No.24 of the District Gazette, H1 Bid Amount offered and remittance of Bid amount by bidder are as follows.

1.	**Quarry Detail**	
	Serial No. in District Gazette No.01, dated 18.02.2025.	24
	Taluk	Alathur
	Village	Padalur (East)
	S.F.No.	10/1 Block 2
	Extent	1.40.6 Hectares
	Lease Period	10 Years
2.	**H1 Bidder, Bid Amount Remittance**	
	H1 Bidder	Thiru. Hariharan. L (BID ID: 1274879) No. 9, Dhanalakshmi Street Postal Nagar, Nemilicheri Chrompet, Kancheepuram District – 600 044.
	H1 Bid Amount	Rs. 8,30,00,000/-
	10% of H1 bid amount remitted	Rs. 83,00,000 /- (Challan No.20250329001580 dated: 29.03.2025)
	Bid Security (EMD) already remitted	Rs. 30,08,270/-
	90% of bid amount paid after adjusting Bid Security already paid	Rs. 7,16,91,730/- (Challan No. 20250429014982, dated 29.04.2025)

The H1 Bidder, Thiru.Hariharan. L(BID ID: 1274879) has remitted entire H1 Bid Amount of Rs. 8,30,00,000/- in Government account within one month as per sub- rule 16 of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959

Therefore, in exercise of the powers conferred under sub rule 17(a) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959, an extent of 1.40.6 hectares of Government land in S.F.No.10/1 Block 2 of Padalur (East) Village, Alathur Taluk, Perambalur District as notified in Serial Number.24 of the Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025 is hereby fixed as Precise Area for grant of permission to quarry Roughstone for a period of 10 years to Thiru. Hariharan. L(BID ID: 1274879), subject to the following conditions

1. 10 meters safety distance should be left out for the adjacent Government lands.
2. The applicant shall not make any hindrance to the adjacent lands and public.
3. The applicant should submit approved Mining Plan, Environment Clearance and Consent to Establish (CTE) & Consent to Operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.

The applicant Thiru.Hariharan. L(BID ID: 1274879 is directed to submit draft Mining Plan for the above area within 90 days for the approval of the Assistant Director, Geology and Mining, Perambalur and to submit Environment Clearance obtained from SEIAA, Tamil Nadu and CTE & CTO issued by the Tamil Nadu Pollution Control Board subsequently for further process.

Encl: Map showing the proposal lease area.

02/05/25

Assistant Director,
Geology and Mining,
Perambalur.

To
Thiru.Hariharan. L
(BID ID: 1274879)
No. 9, Dhanalakshmi Street Postal Nagar,
Nemilicheri Chrompet,
Kancheepuram District – 600 044.

Copy to:

1. The Chairman,
   SEIAA Level Environment Impact Assessment Authority,
   Panagal Maligai, Saidapet,
   Chennai.
2. The Commissioner of Geology and Mining, Chennai-32.

ANNEXURE 14

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

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Registered No. TN / SRGM —10

PERAMBALUR DISTRICT GAZETTE

EXTRAORDINARY PUBLISHED BY AUTHORITY

PERAMBALUR, FEBRUARY 18, 2025

No. 1]

[Maasi 06, Kurothi, Thiruvalluvar Aandu - 2056]

NOTIFICATION BY THE COLLECTOR

(Rc. No.35 / G&M / 2022, Dated : 17–02–2025)

E-mail: (minespmb@gmail.com)

Notice Inviting Tender(NIT)

"Inviting Application for Grant of Roughstone Quarry Leases in Government Lands"

In exercise of the power conferred by Section 15 of Mines and Mineral (Development & Regulation) Act, 1957 and in accordance with the Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959 read with G.O. Ms. No.21, Natural Resources (MMC.1), 31st July 2024 as amended from time to time notified thereunder, the District Administration of Perambalur District, Tamil Nadu has identified 44 (Forty four) areas for Roughstone Quarries in Perambalur District as indicated in the Annexure-I.

The E-tender with forward bidding will be conducted through online electronic platform with url address https://tntenders.gov.In and hereby invites applications for the said purpose.

Aspiring applicants can register themselves as bidders using their Digital Signature certificate on the portal https://tntenders.gov.in On Successful registration, bidders will obtain login ID and password necessary for submitting the application and for participation in the e-auction process. **Bidders Manual Kit** in the portal https://tntenders.gov.in provides with all requisite illustrations guiding through various stages of the e-auction process.

The terms and conditions of the e-auction process, details of application fee and bid security amount, detailed information regarding the notified areas, model affidavits to be uploaded in the technical bid are available in the detailed tender document, that can be downloaded free of cost in the portal https://tntenders.gov.in

Intending bidders are advised to visit the mentioned site regularly till closing date of E-auction for any corrigendum / addendum / amendment.

DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

Application Fee – Rs.5,000 (Non – Refundable) for each quarry

Bid submission start date	:	19–02–2025 from 10.00 hrs
Bid Submission end date	:	22–03–2025 upto 16.00 hrs
Financial bid opening andlive e-auction date	:	Will be intimated later on through Tamil Nadu e-Tender portal

ANNEXURE – I

Tender File No.Rc.No.35/G&M/2022, Dated : 17–02–2025

List of Areas identified in Government lands in Perambalur District of Tamil Nadu for Grant of Rough Stone Quarry Leases through e-Auction.

Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Perambalur	Kalpadi(N)	328/2 Block 31	1.10.0	Unassessed waste land - Malai	5
2	Perambalur	Kalpadi(N)	328/2 Block 34	1.00.0	Unassessed waste land - Malai	10
3	Perambalur	Kalpadi(N)	328/2 Block 35	1.50.0	Unassessed waste land - Malai	5
4	Perambalur	Kalpadi(N)	328/2 Block 36	1.00.0	Unassessed waste land - Malai	5
5	Perambalur	Kalpadi(N)	328/2 Block 37	1.00.0	Unassessed waste land - Malai	5
6	Perambalur	Kalpadi(N)	328/2 Block 38	1.00.0	Unassessed waste land - Malai	10
7	Perambalur	Chatramanai	23 Part-1	1.10.0	Unassessed waste land – Eli Kundru	5
8	Perambalur	Thurai mangalam	280/13A1 Block-8	1.00.0	Unassessed waste land - Kundru	10
9	Perambalur	Elambalur	27/1A (Block-1)	1.20.0	Unassessed waste land - Malai	5
10	Perambalur	Elambalur	27/1A, (Block-2)	1.80.0	Unassessed waste land - Malai	10
11	Perambalur	Elambalur	27/1A, (Block-3)	2.50.0	Unassessed waste land - Malai	10
12	Perambalur	Aranaral(N)	120/2A1A (Part-1)	1.50.0	Unassessed waste land - Kundru	10
13	Perambalur	Aranaral(N)	120/2A1A (Part-2)	1.50.0	Unassessed waste land - Kundru	10
14	Perambalur	Aranaral(N)	120/2A1A (Part-3)	1.80.0	Unassessed waste land - Kundru	5
15	Perambalur	Sengunam	52/1(Part-1)	1.80.0	Unassessed waste land - Malai	10
16	Perambalur	Sengunam	52/1(Part-2)	1.40.0	Unassessed waste land - Malai	10

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR *3

Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
17	Perambalur	Sengunam	52/1(Part-3)	1.50.0	Unassessed waste land - Malai	10
18	Alathur	Narana mangalam	300/1 Part	2.02.0	Unassessed waste land - Malai	5
19	Alathur	Narana mangalam	324/1 Block-1	2.00.0	Unassessed waste land - Kallankuthu	5
20	Alathur	Nattar mangalam	195 Part	1.50.0	Unassessed waste land - Kallankuthu	5
21	Alathur	Nattar mangalam	258 Block-1	1.00.0	Unassessed waste land - Malai	5
22	Alathur	Nattar mangalam	258 Block-2	2.00.0	Unassessed waste land - Malai	5
23	Alathur	Padalur(E)	10/1 Block 1	1.50.0	Unassessed waste land - Kallankuthu	5
24	Alathur	Padalur(E)	10/1 Block 2	1.40.60	Unassessed waste land - Kallankuthu	10
25	Alathur	Padalur(E)	10/1 Block 3	1.40.0	Unassessed waste land - Kallankuthu	5
26	Alathur	Padalur(E)	10/1 Block 4	1.40.0	Unassessed waste land - Kallankuthu	5
27	Alathur	Padalur(E)	10/1 Block 5	2.10.0	Unassessed waste land - Kallankuthu	5
28	Alathur	Padalur(E)	10/1 Block 6	2.20.0	Unassessed waste land - Kallankuthu	10
29	Alathur	Padalur(E)	10/1 Block 7	1.30.0	Unassessed waste land - Kallankuthu	5
30	Alathur	Padalur(E)	10/1 Block 8	1.20.0	Unassessed waste land - Kallankuthu	5
31	Alathur	Padalur(E)	10/1 Block 9	1.20.0	Unassessed waste land - Kallankuthu	5
32	Alathur	Padalur(E)	10/1, Block-13	1.00.0	Unassessed waste land - Kallankuthu	5
33	Alathur	Padalur(E)	123 Block 1	1.50.0	Unassessed waste land - Kallankuthu	5
34	Alathur	Padalur(E)	123 Block 2	1.50.0	Unassessed waste land - Kallankuthu	5
35	Alathur	Padalur(E)	123 Block 3	1.50.0	Unassessed waste land - Kallankuthu	5
36	Alathur	Padalur(E)	123 Block 4	2.00.0	Unassessed waste land - Kallankuthu	5
37	Alathur	Padalur(E)	172 Block 1	1.50.0	Unassessed waste land - Kallankuthu	5

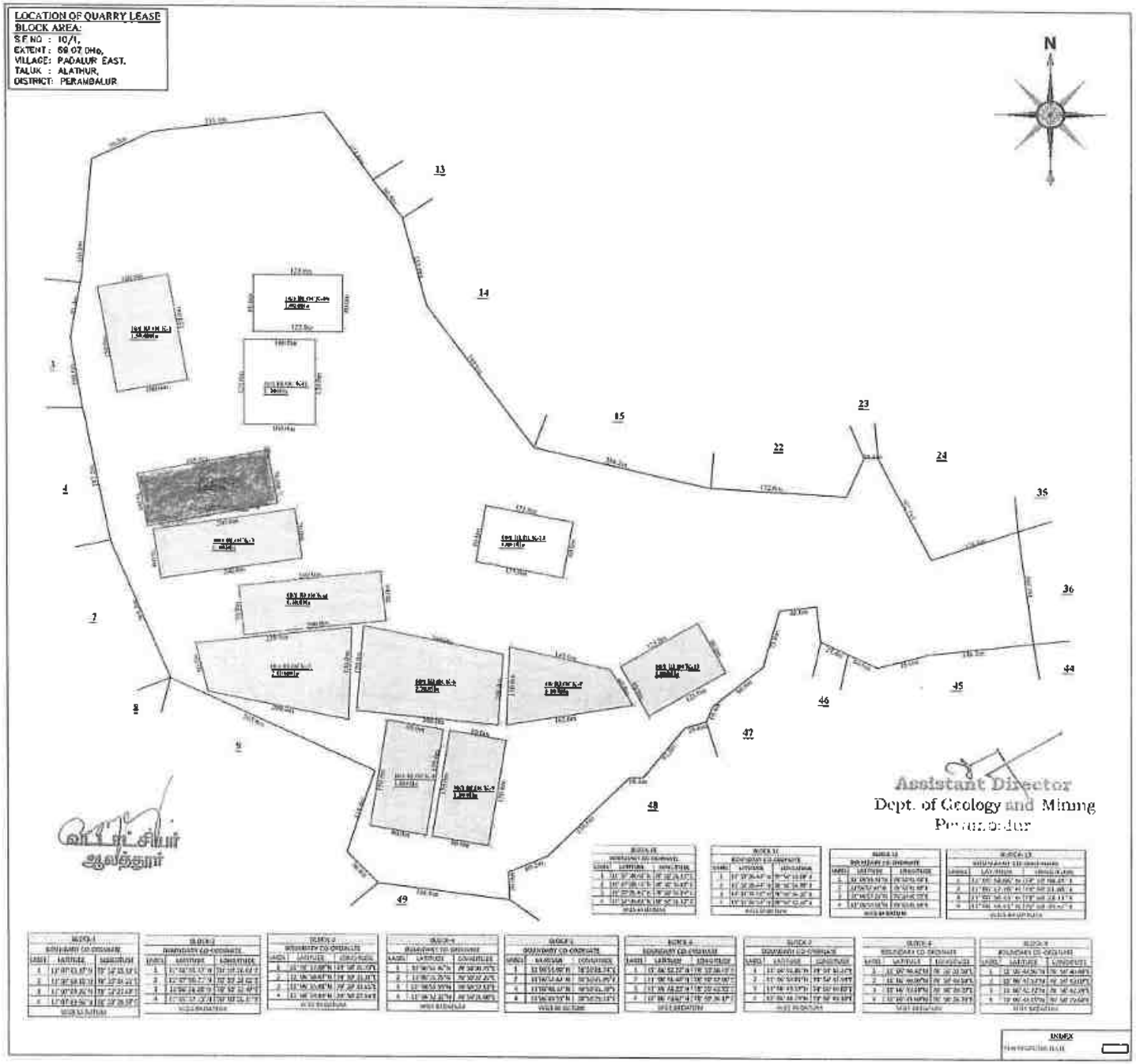
ASST. DIRECTOR OF GEOLOGY AND MINING
PERAMBALUR

Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
38	Alathur	Padalur(E)	172 Block 2	1.50.0	Unassessed waste land - Kallankuthu	5
39	Alathur	Padalur(E)	172 Block 3	1.50.0	Unassessed waste land - Kallankuthu	5
40	Veppanthattai	Vengalam(E)	200/1B Part, Block-13	1.50.0	Unassessed waste land - Malai	10
41	Veppanthattai	Vengalam(E)	200/1C, Part, Block-1	1.40.0	Unassessed waste land - Malai	10
42	Veppanthattai	Vengalam(E)	200/1C, Part, Block-14	1.40.0	Unassessed waste land - Malai	10
43	Veppanthattai	Vengalam(E)	200/1C Part, Block-15	1.50.0	Unassessed waste land - Malai	10
44	Veppanthattai	Vengalam(E)	200/1C Part, Block-16	1.50.0	Unassessed waste land - Malai	10

Perambalur,
17th February 2025.

GRACE PACHUAU,
District Collector.

Printed by the Commissioner of Stationery and Printing at the Government Branch Press, Tiruchirappalli
and published by the Collector of the District.



LEASE APPLIED AREA

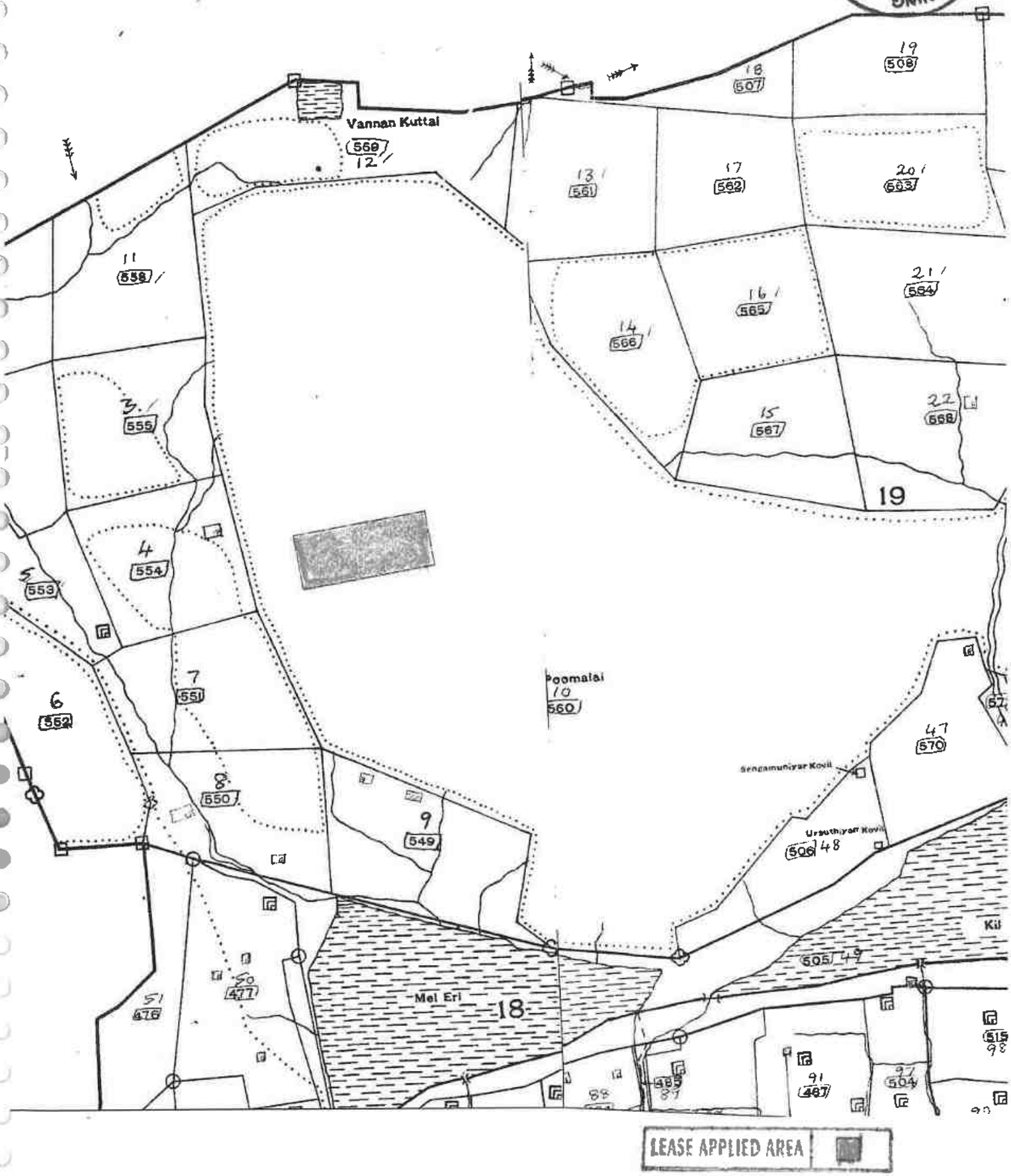
ANNEXURE - I

ASST. DIRECTOR OF GEOLOGY AND MINING * PERAMBALUR

ANNEXURE VII

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

PADALUR EAST BH NO. 1



LEASE APPLIED AREA

1434 ஆம் பசலியில் கொம்பாதுர் மாவட்டம் திண்டிவனம் கிராமக் கணக்கு வட்டம் 73. பாடாலூர் தெற்கு

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர்.	சாகுபடி வாளின் பெயர்.	முதல் போகம்.					இரண்டாம் போகம்.					கீழ்க்கண்டவகையில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பாப்பின் விவரங்கள் ஒவ்வொரு நில அளவை எண் அல்லது அதன் பகுதியில்.	பயிர் பார்வையிடும் அலுவலர் குறிப்புரைகள்.
நில அளவை எண்.	உட்பிரிவு எண்.	பரப்பு.	தீர்வை.	ஒரு போகம் அல்லது இரு போகம்.		நிலத்தின் சந்த பகுதி பாவது சாகுபடியாளால் பயிரிடப்பட்டுள்ளதா.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை செய்யப்பட்டது	பயிரின் பெயர்.	பயிரான / அறுவடை யான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரக்காடு.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்	விளைச்சல் அளவு விபரக்காடு.	கிராம அலுவலரின் குறிப்புரை :- (1) புலன்களின் பகுதிகளில் பயிரிடப்பட்ட விபரங்கள் ஆராயில் (2) கைப்பற்றும் நிலங்களின் சாகுபடியின் தன்மையும் (3) முந்தைய மாதத்தில் பயிரிடப்பட்ட நிலங்களுக்கு பிந்தைய மாதங்களில் நீர் பாய்ச்சப்பட்ட விவரங்கள்.	(அ) வனம், (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலம், (இ) விவசாயம் மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம், (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும், (ஊ) விதைக்கப்பட்ட நிகர பயிரில் சேர்க்கப்படாத மரவகைப் பயிர்களும் தோப்புகளும், (எ) நடப்புத் தரிசுகள் (ஏ) இதர தரிசு நிலங்கள்.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(16)	(18அ)	(19)
10	1	6.32.00	1		—		—	—									கொம்பாதுர்		
						12 கொம்பாதுர்													
						27-6													
						30-9-27													
						கிராம நிர்வாக அலுவலர் 73 – பாடாலூர் (தெற்கு) நூலத்தூர் வட்டம், திண்டிவனம் வட்டம்.													

380/21-R.F. III-A-10-20,00,000 Cps.-GBP.-Mdu.-7-2022.

எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

ANNEXURE IV

ANNEXURE V
ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

1	2	3	4	5	6	7	8	9	10	11	
							ரூ.மை	மெ.டன்	ரூ.மை		
8	3A	8-3A	ர	4	...	8-4	16	1 09	0 26·0	0 28	653 தெ.ரா.மணி(1). சு.முத்து சாமி(2).
	3B	-3B	அ	4	...	8-4	16	1 09	1 26·5	1 37	..... தரிசு.
	4	-4	ர	4	...	8-4	16	1 09	0 20.0	0 22	653 தெ.ரா.மணி(1). சு.முத்தம் மாள்(2). சதுரக் கிணறு
	5	-5	ர	4	...	8-4	16	1 09	1 22·5	1 33	5 ரா.அமிர்தம் மாள். சதுரக் கிணறு
									3 79·0	3 78	
9	1A	9-1A	அ	4	...	8-4	16	1 09	0 21·0	0 23	... தரிசு.
	1B	-1B	ர	4	...	8-4	16	1 09	1 02.5	1 11	604 வி.ரெங்கம் மாள். சதுரக் கிணறும் கூரைவீடும்.
	1C	-1C	ர	4	...	8-4	16	1 09	1 43·5	1 56	632 தெ.வீரன் செட்டி.
	2	-2	அ	புற	...	...	...	...	1 73·0	...	..... நீர்ப்பிடிப்பு
									4 40·0	2 90	
10	1	10-1	அ	இ.ஏ.த	...	...	...	...	66 61.5	...	..... கல்லாங் குத்து.
	2	-2	அ	4	...	8-4	16	1 09	2 08·5	2 98	..... தரிசு.
									68 70·0	2 98	
11	1	11-1	ர	4	...	8-4	16	1 09	0 38·0	0 42	65 தெ.ராமராஜ்.
	2	-2	அ	புற	...	...	...	...	0 13·5	...	..... வாரி.
	3A	-3A	அ	4	...	8-4	16	1 09	1 18.0	1 28	..... தரிசு.
	3B1	-3B பா	ர	4	...	8-4	16	1 09	0 06.0	0 07	128 வீ.ராமலிங்.
	3B2	-3B பா	ர	4	...	8-4	16	1 09	0 06.5	0 08	6 வீ.அண்ணாவி.
	3B3	-3B பா	ர	4	...	8-4	16	1 09	0 03.0	0 06	175 பொ.சாமிக் கண்ணு.
	3B4	-3B பா	ர	4	...	8-4	16	1 09	0 03.0	0 06	307 பொ.குப் புசையா.

ANNEXURE VI

ASST. DIRECTOR GEOLOGY AND MINING PERAMBALUR

भारत सरकार
Government of India

லோ ஹரிஹரன்
L Hariharan
பிறந்த நாள் / DOB: 20/05/1988
ஆண் / Male

Aadhaar no. issued: 20/04/2014

ஆதார் என்பது அடையாளத்திற்கான சான்றாகும், குடியுரிமை அல்லது பிறந்த தேதிக்கான சான்றல்ல. இது சரிபார்ப்புடன் மட்டுமே பயன்படுத்தப்பட வேண்டும் (ஆன்லைன் அங்கீகாரம் அல்லது ஒ காதிட்டை எக்கேள செய்தல்/ஆ பிலைன் எக்.
Aadhaar is proof of identity, not of citizenship or date of birth. It should be used with verification (online authentication, or scanning of QR code / offline XML).

3394 3308 1841

मेरा आधार, मेरी पहचान

भारतीय विशिष्ट पहचान प्राधिकरण
Unique Identification Authority of India

முகவரி: C/o ம லோகநாதன், எண் 9, தனலட்சுமி தெரு, போஸ்டல் நகர் நெமிலிச்சேரி, குரோம்பேட்டை, காஞ்சிபுரம், தமிழ் நாடு, 600044
Address: C/O M Loganathan, No 9, Dhanalakshmi Street, Postal Nagar Nemilichery, Chromepet, PO:Chromepet, DIST:Kancheepuram, Tamil Nadu, 600044

Details as on 10/09/2024

3394 3308 1841

1947 help@uidai.gov.in www.uidai.gov.in

CHETTINAD CEMENT CORPORATION LTD.

(Regd. Office: RANI SEETHAI HALL BUILDING IV & V FLOORS, 603, ANNA SALAI, MADRAS-600006.)
WORKS OFFICE : PULIYUR.

TELE: PHONE 21144 / 22744 / 21745 KARUR
GRAM "CEMENT" Puliyur C.F.
Telex: 0456-215.
STD Code: 04324

PULIYUR CEMENT FACTORY PH. 39114
(Karur Dist. Trichy)

GEOLOGY AND MINING
DIRECTORATE
KERAMBALUR

T.RAJU.,B.E.,
MINES MANAGER & DY.GENERAL MANAGER.

22nd September,1987.

CERTIFICATE.

This is to certify that Mr.C.Natarajan has been working as a Geologist from 14-12-1979 to till date. He has been incharge of supervision of day to day functions in respect of Exploration, Preparation of Geological Plans & Sections, Preparation of Mines Plans, and Quality control and other allied mining activities in the following Pits of our Seethainagar Limestone Mines in Anna District.

Name of the Pit.		Average Raising/day.
1. Alambadi Pit.	-	1,700 T.
2. Mallapuram Pit.	-	900 T.
3. Karikkali Pit.	-	150 T.
Total.	-	2,750 T.

He has got nearly Eight years of total experience in our Mines in the above supervisory capacity.

for CHETTINAD CEMENT CORPORATION LTD.,

(T.RAJU).
Mines Manager & Dy. General Manager.

3209.

ASST. DIRECTOR OF GEOLOGY AND MINING
PERAMBALUR

Annamalai University

Faculty of Science

The Senate of the Annamalai University hereby makes known that E. Natarajan has been admitted to the Degree of Master of Science (by Examination) in Geology, he having been certified by duly appointed Examiners at the examination held in April 1976, to be qualified to receive the same and that he was placed in the First Class.

Given under the seal of the University.

Annamalainagar
8th December 1976.

A. Chandrasekhar
Vice-Chancellor.

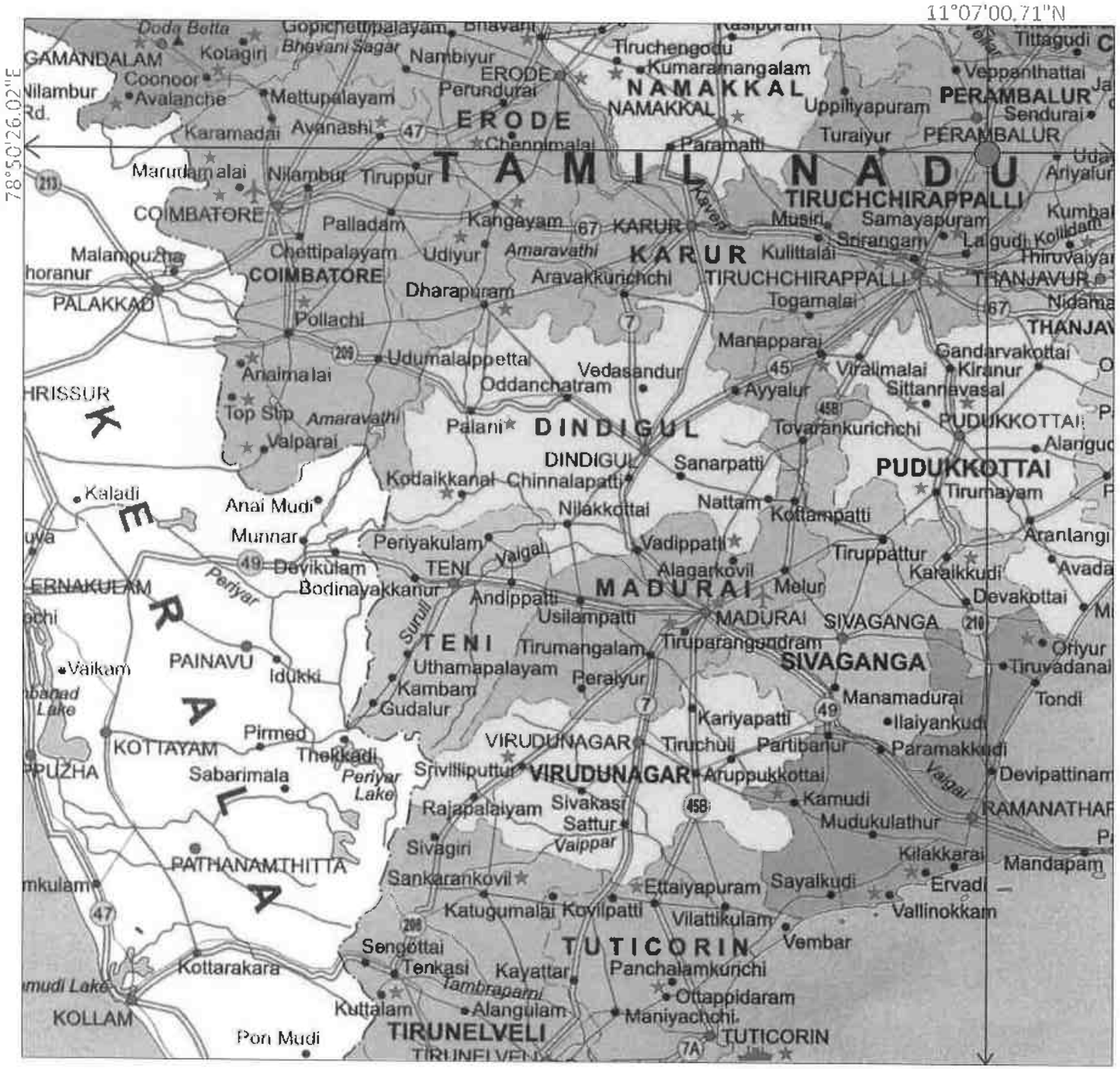


PLATE NO: I

DATE OF SURVEY :03.05.2025

APPLICANT:

THIRU.L.HARIHARAN,
NO.9,DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 004.

QUARRY LEASE APPLIED AREA:

S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha.
VILLAGE :PADALUR EAST,
TALUK : ALATHUR,
DISTRICT : PERAMBALUR.

INDEX

Q. L. APPLIED AREA :

TOPO SHEET NO : 58 I/16

LATITUDE :11°06'57.13"N to 11°07'00.71"N

LONGITUDE:78°50'26.02"E to 78°50'32.47"E

LOCATION PLAN

NOT TO SCALE

PREPARED BY :

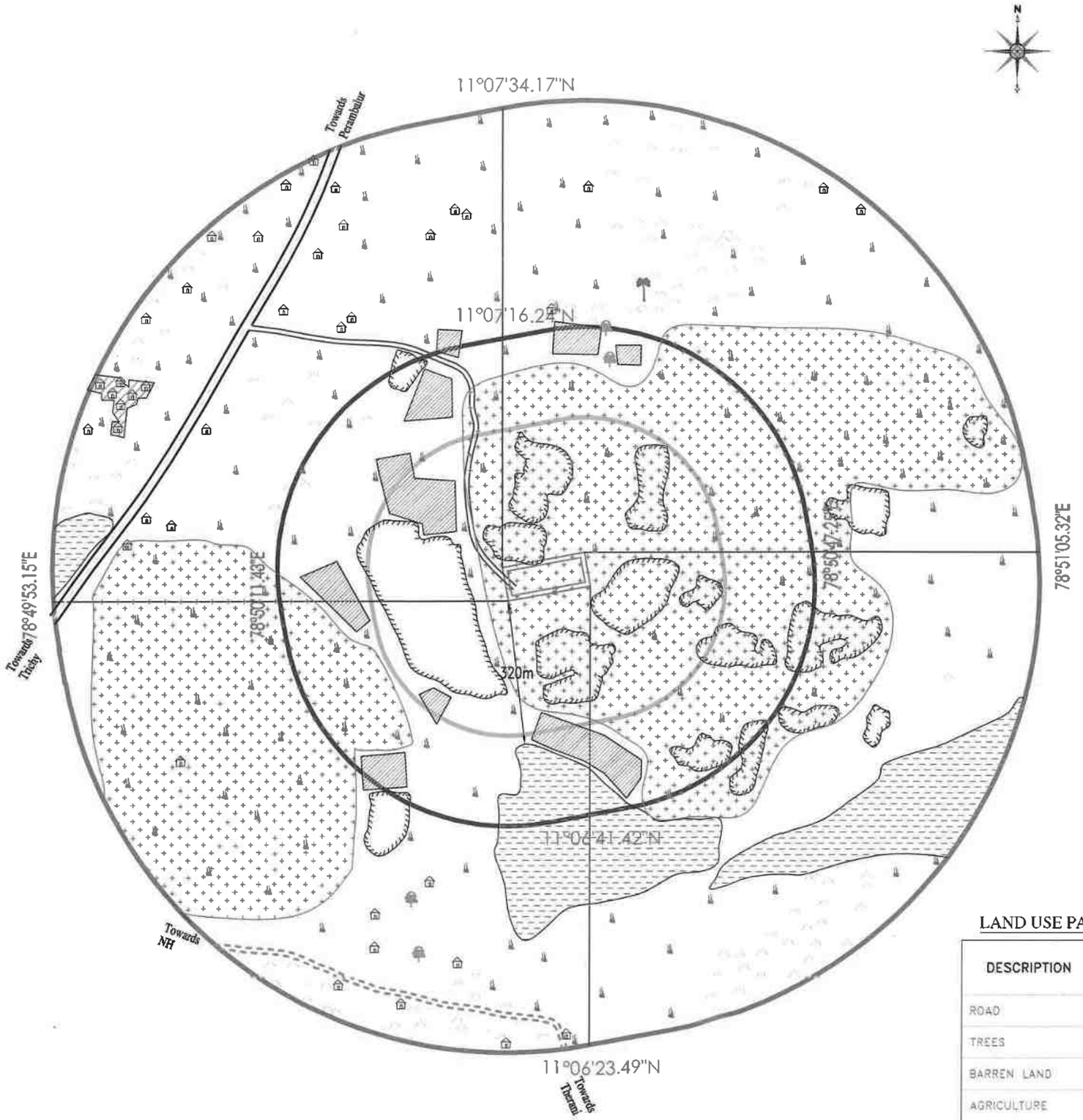
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT.

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

C.NATARAJAN,M.Sc.,M.Phil.,
QUALIFIED PERSON

PLATE NO-IA

DATE OF SURVEY :03.05.2025



APPLICANT:

THIRU.L.HARIHARAN,
NO.9,DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 004.

ASSTT. DIRECTOR OF GEOLOGY AND MINING
PERAMBALUR

QUARRY LEASE APPLIED AREA:

S.F.NO : 10/1(BLOCK-2).
EXTENT :1.40.60Ha.
VILLAGE :PADALUR EAST,
TALUK : ALATHUR.
DISTRICT : PERAMBALUR.

INDEX

TOPO SHEET NO : 58 I /16

LATITUDE :11°06'57.13"N to 11°07'00.71"N

LONGITUDE:78°50'26.02"E to 78°50'32.47"E

Q.L.APPLIED AREA	
10m SAFETY	
300M RADIUS	
500M RADIUS	
1KM RADIUS	
APPROACH ROAD	
PANCHAYAT ROAD	
NATIONAL HIGHWAY	
BARREN LAND	
AGRICULTURAL LAND	
TREES	
QUARRY PIT	
HABITATION	
HILLOCK	
TANK	
CRUSHER PLANT	

LAND USE PATTERN

DESCRIPTION	AREA IN (%)
ROAD	10
TREES	05
BARREN LAND	30
AGRICULTURE	10
HABITATIONS	03
WATER BODIES	12
HILLOCK	30

ENVIRONMENTAL PLAN

SCALE 1 : 10,000

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN,M.Sc.,M.Phil.,
QUALIFIED PERSON

11°07'34.17"N
78°49'53.15"E
78°51'05.32"E
11°06'23.49"N
Towards Thirumullaivoyal
Towards Thirumullaivoyal
Towards Thirumullaivoyal

N

PLATE NO-I C

DATE OF SURVEY : 03.05.2025

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

APPLICANT:

THIRU.L.HARIHARAN,
NO.9,DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 004.

QUARRY LEASE APPLIED AREA:

S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha,
VILLAGE :PADALUR EAST,
TALUK : ALATHUR,
DISTRICT : PERAMBALUR.

INDEX

TOPO SHEET NO : 58 I /16

LATITUDE :11°06'57.13"N to 11°07'00.71"N

LONGITUDE:78°50'26.02"E to 78°50'32.47"E

Q.L.APPLIED AREA

10KM RADIUS

TOPO SKETCH OF QUARRY

LEASE APPLIED AREA FOR 10Km RADIUS

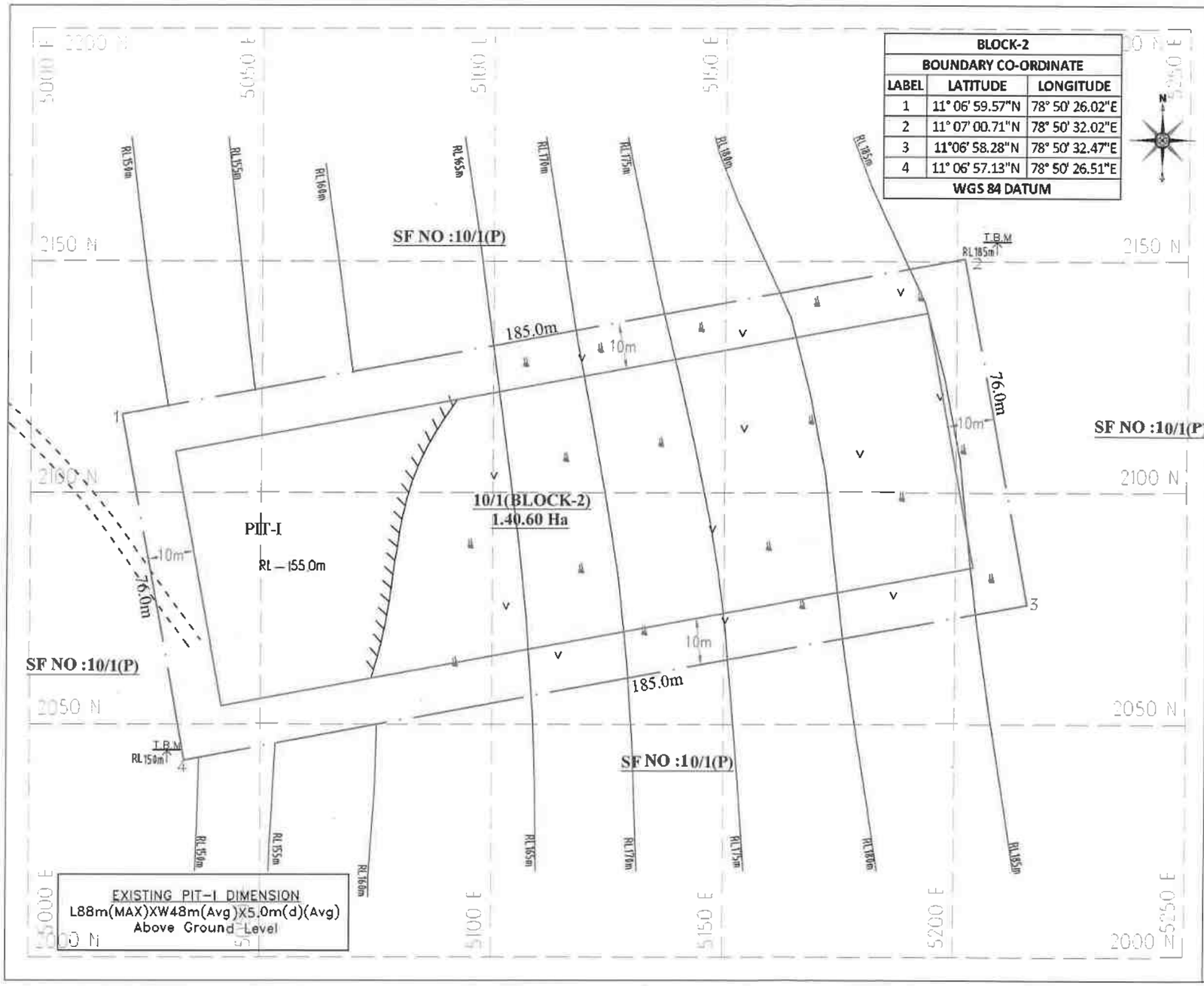
SCALE- 1:100000

PREPARED BY:

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN,M.Sc,M.Phil.,
QUALIFIED PERSON

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR



BLOCK-2		
BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
1	11° 06' 59.57"N	78° 50' 26.02"E
2	11° 07' 00.71"N	78° 50' 32.02"E
3	11°06' 58.28"N	78° 50' 32.47"E
4	11° 06' 57.13"N	78° 50' 26.51"E
WGS 84 DATUM		

PLATE NO-II

DATE OF SURVEY :03.05.2025

APPLICANT:

THIRU.L.HARIHARAN,
NO.9.DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 004.

QUARRY LEASE APPLIED AREA:

S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha,
VILLAGE :PADALUR EAST,
TALUK : ALATHUR,
DISTRICT : PERAMBALUR.

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- Q.LEASE APPLIED BOUNDARY
- 10m SAFETY DISTANCE
- TEMPORARY BENCH MARK (T.B.M)
- APPROACH ROAD
- QUARRY ROAD
- CONTOUR
- SCRUB
- TOPSOIL
- QUARRY PIT

QUARRY LEASE & SURFACE PLAN

SCALE 1: 1000

PREPARED BY:

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN,M.Sc,M.Phil.,
QUALIFIED PERSON

KEY PLAN

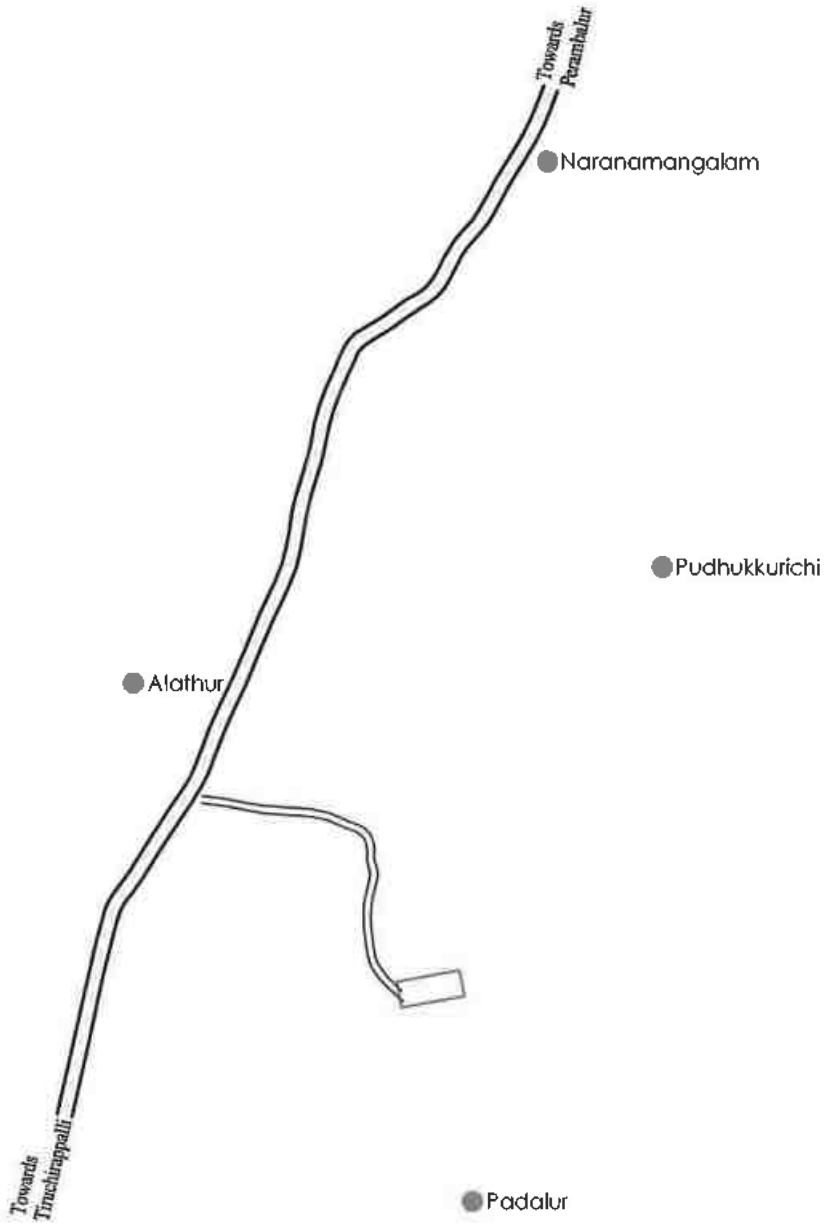

PLATE NO:I-D

DATE OF SURVEY:03.05.2025

APPLICANT:

THIRU.L.HARIHARAN,
NO.9.DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 004.

QUARRY LEASE APPLIED AREA:

S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha,
VILLAGE :PADALUR EAST,
TALUK : ALATHUR,
DISTRICT : PERAMBALUR.

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Q.L.APPLIED AREA

NATIONAL HIGHWAY

APPROACH ROAD

HABITATIONS

KEY PLAN

Not To Scale

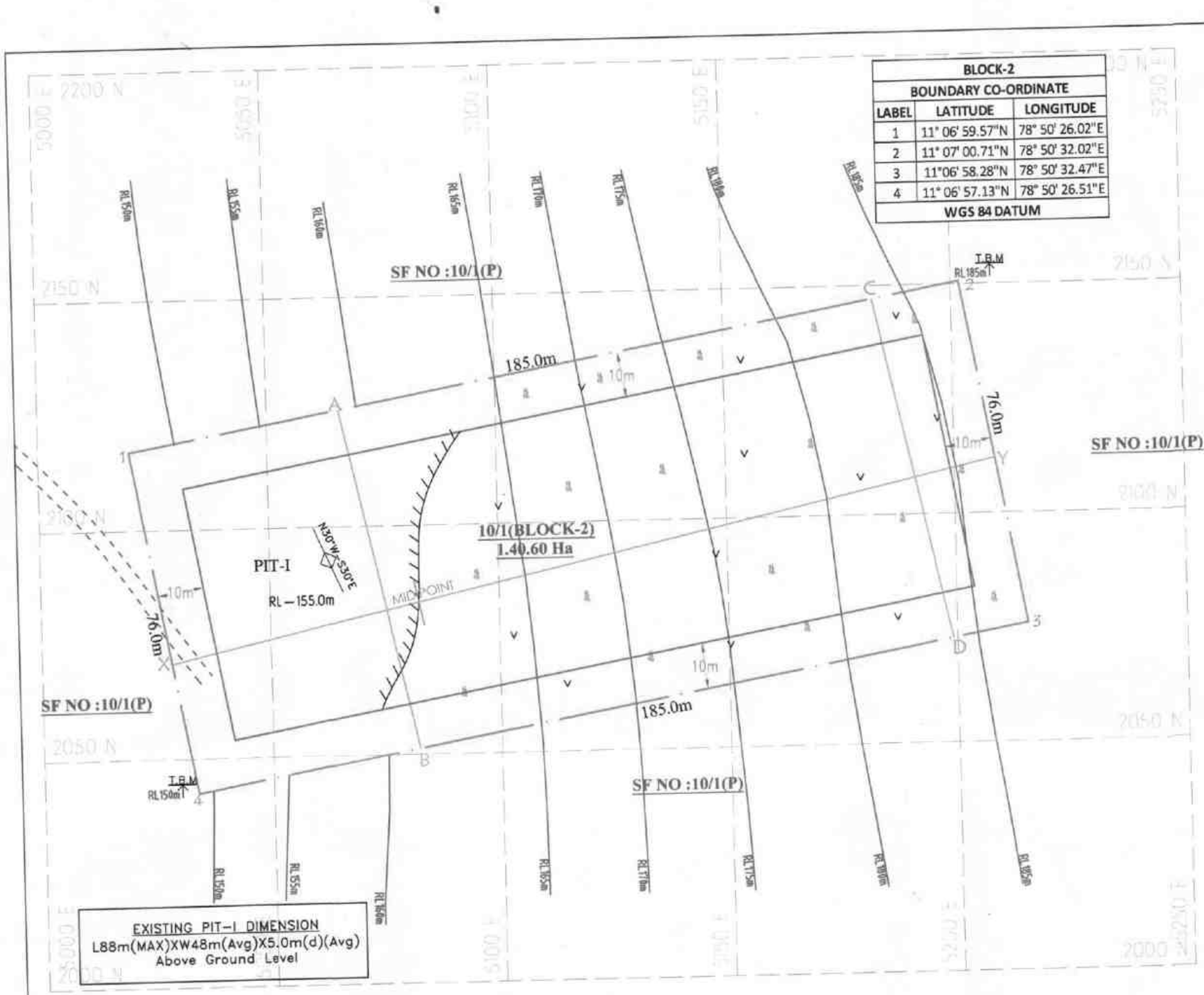
PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED ON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT.

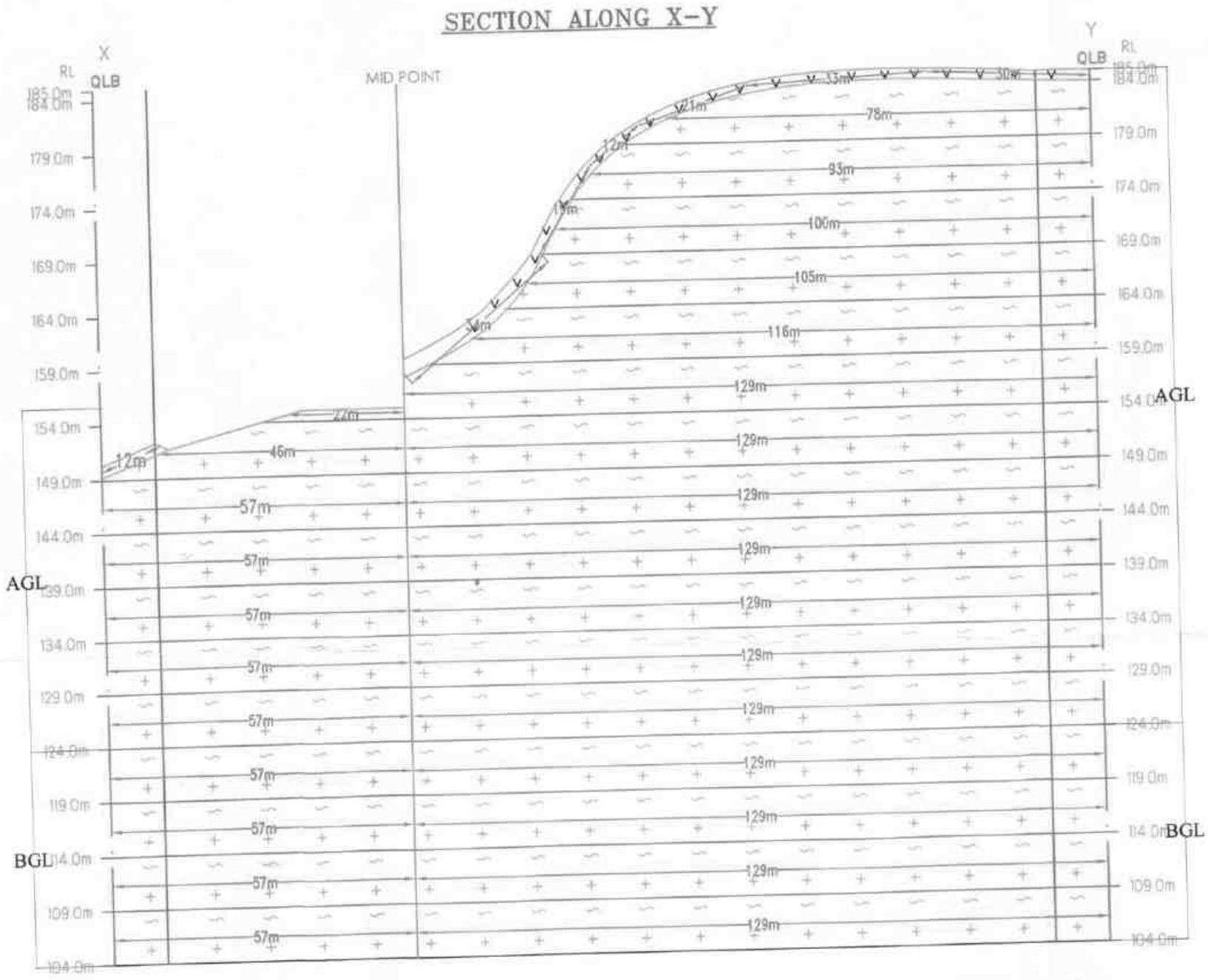
ASST.DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

C.NATARAJAN.M.Sc.,M.Phil.,
QUALIFIED PERSON

BLOCK-2		
BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
1	11° 06' 59.57"N	78° 50' 26.02"E
2	11° 07' 00.71"N	78° 50' 32.02"E
3	11°06' 58.28"N	78° 50' 32.47"E
4	11° 06' 57.13"N	78° 50' 26.51"E
WGS 84 DATUM		



SECTION ALONG X–Y



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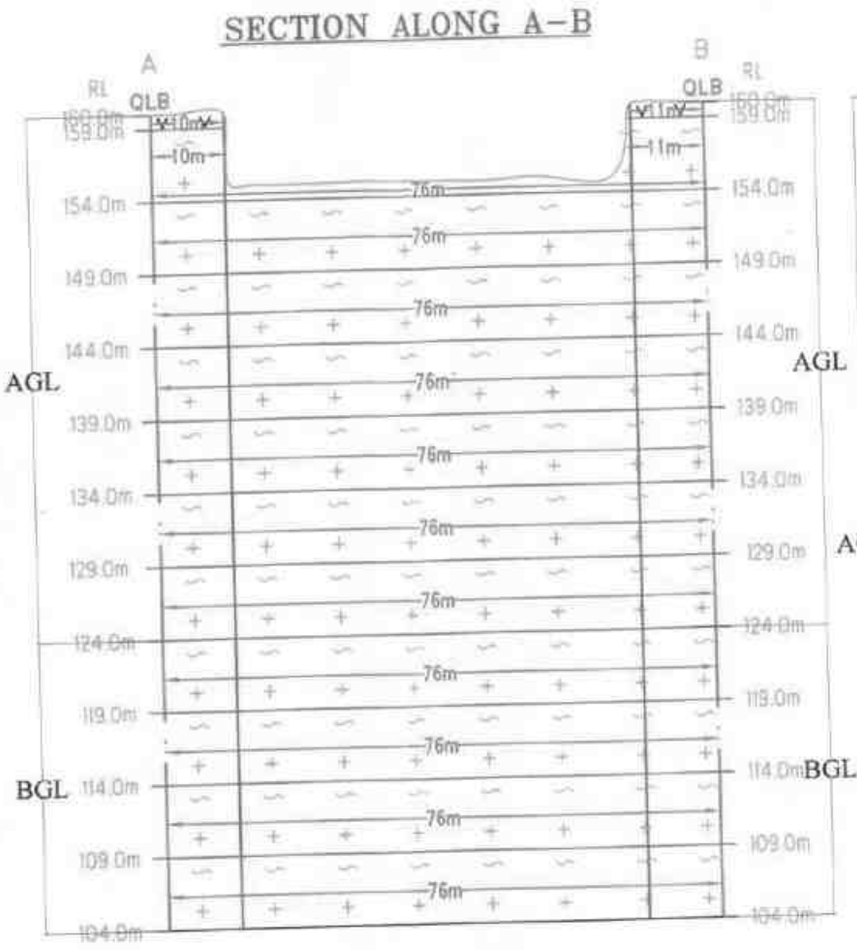
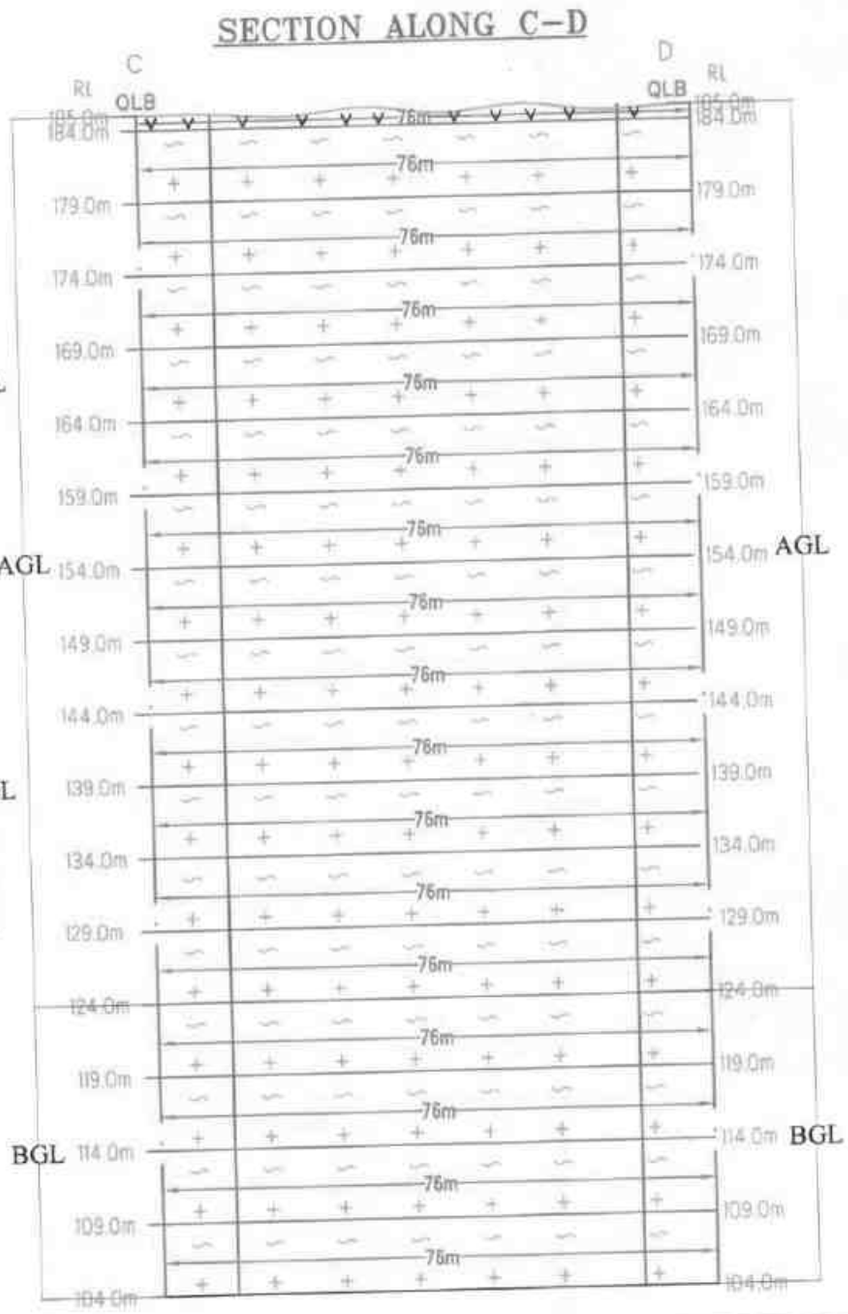


SECTION ALONG C–D



AGL-ABOVE GROUND LEVEL
BGL-BELOW GROUND LEVEL

PLATE NO-III
DATE OF SURVEY ::03.05.2022

APPLICANT:
THIRU.L.HARIHARAN
NO.9,DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT – 600 044.

DIRECTOR OF GEOLOGY AND MINING ASST. PERAMBALUR

QUARRY LEASE APPLIED AREA:
S.F.NO : 10/1(BLOCK-2).
EXTENT :1.40.60Ha.
VILLAGE :PADALUR EAST.
TALUK : ALATHUR.
DISTRICT : PERAMBALUR.

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- APPROACH ROAD
- CONTOUR
- SCRUB
- TOPSOIL
- ROUGH STONE
- STRIKE&DIP
- QUARRY PIT

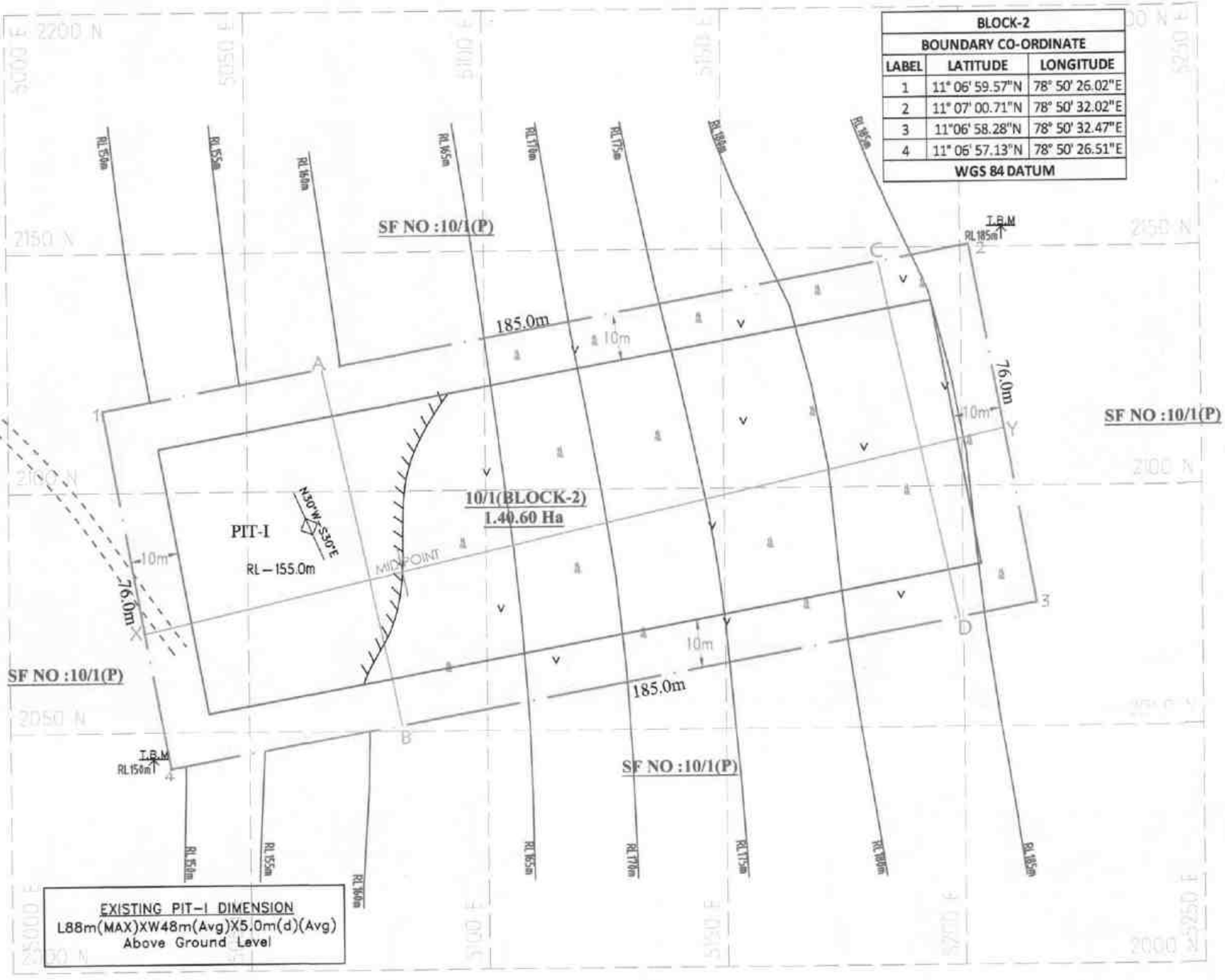
TOPOGRAPHY,GEOLOGICAL, PLAN & SECTION
SCALE 1 : 1000
SECTION HOR 1 : 1000, VER 1: 500

PREPARED BY:

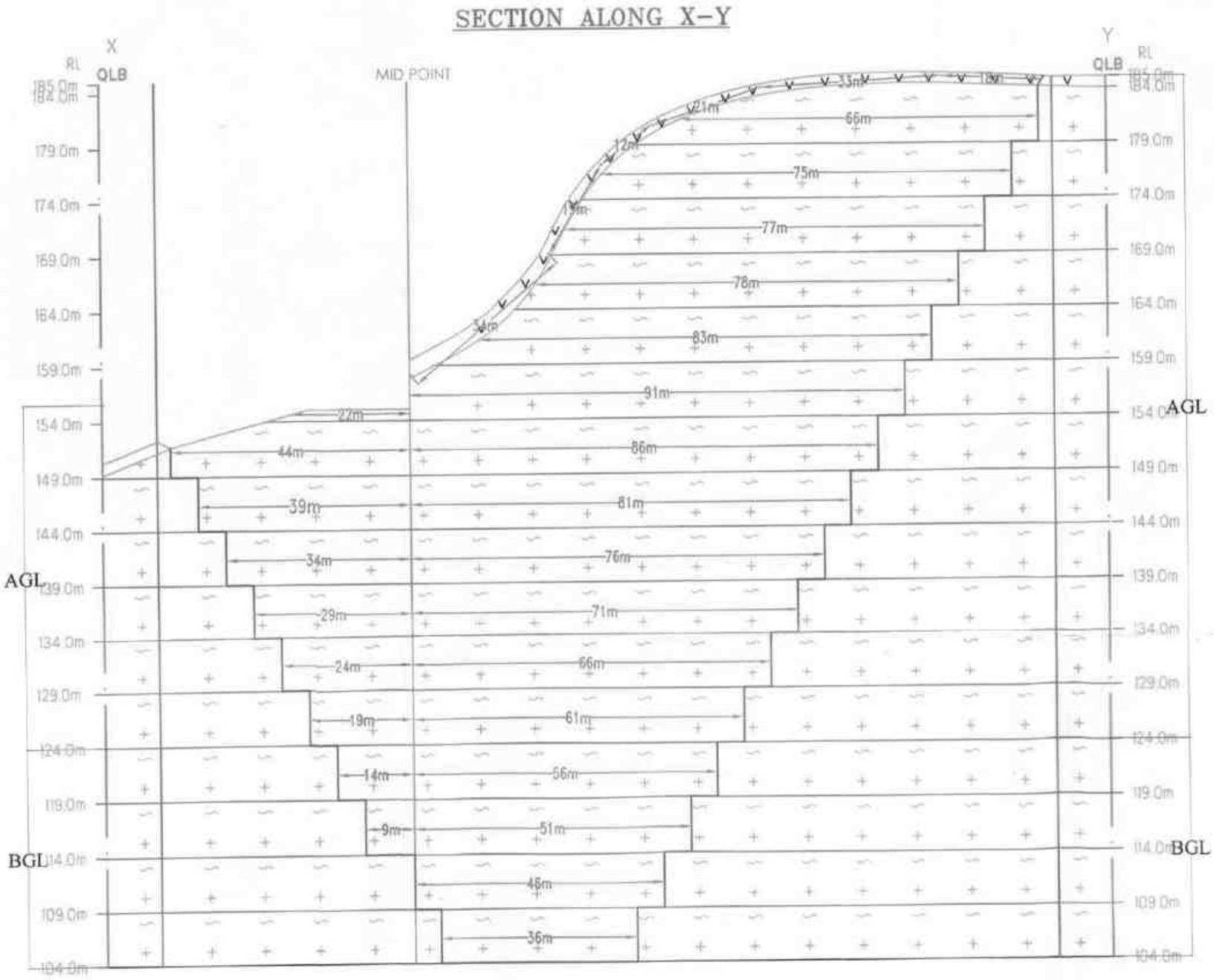
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE A CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE M AUTHENTICATED BY STATE GOVERNME

C.NATARAJAN,M.Sc,M.Phil.
QUALIFIED PERSON

BLOCK-2		
BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
1	11° 06' 59.57"N	78° 50' 26.02"E
2	11° 07' 00.71"N	78° 50' 32.02"E
3	11°06' 58.28"N	78° 50' 32.47"E
4	11° 06' 57.13"N	78° 50' 26.51"E
WGS 84 DATUM		



SECTION ALONG X–Y



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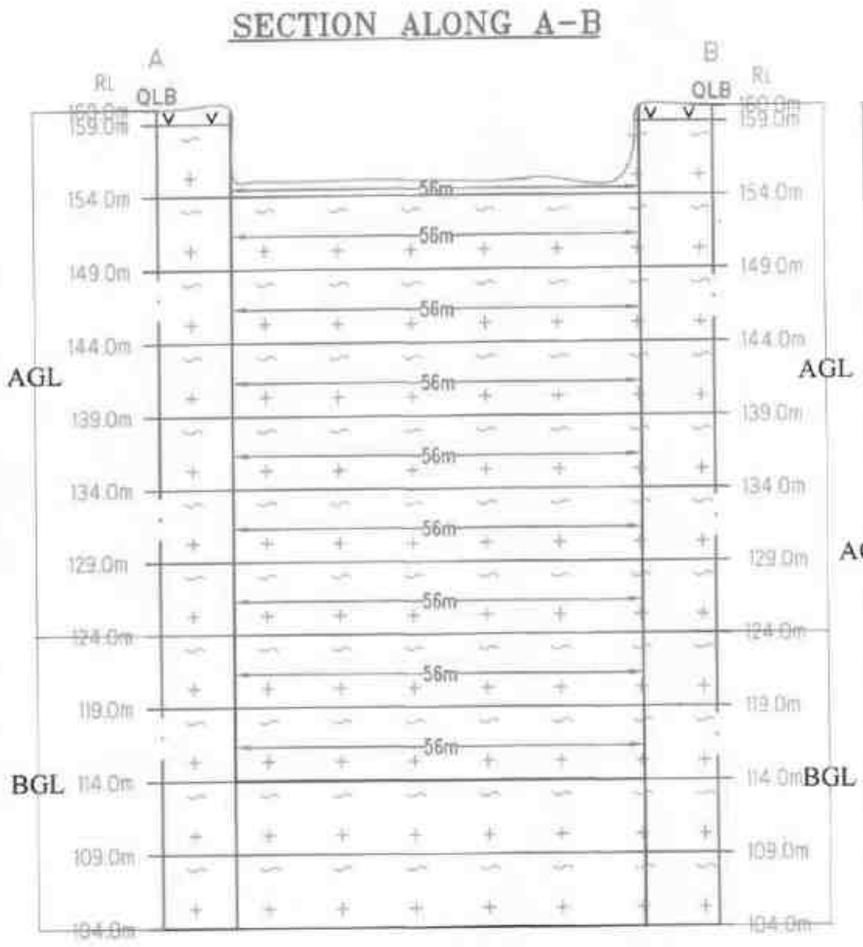
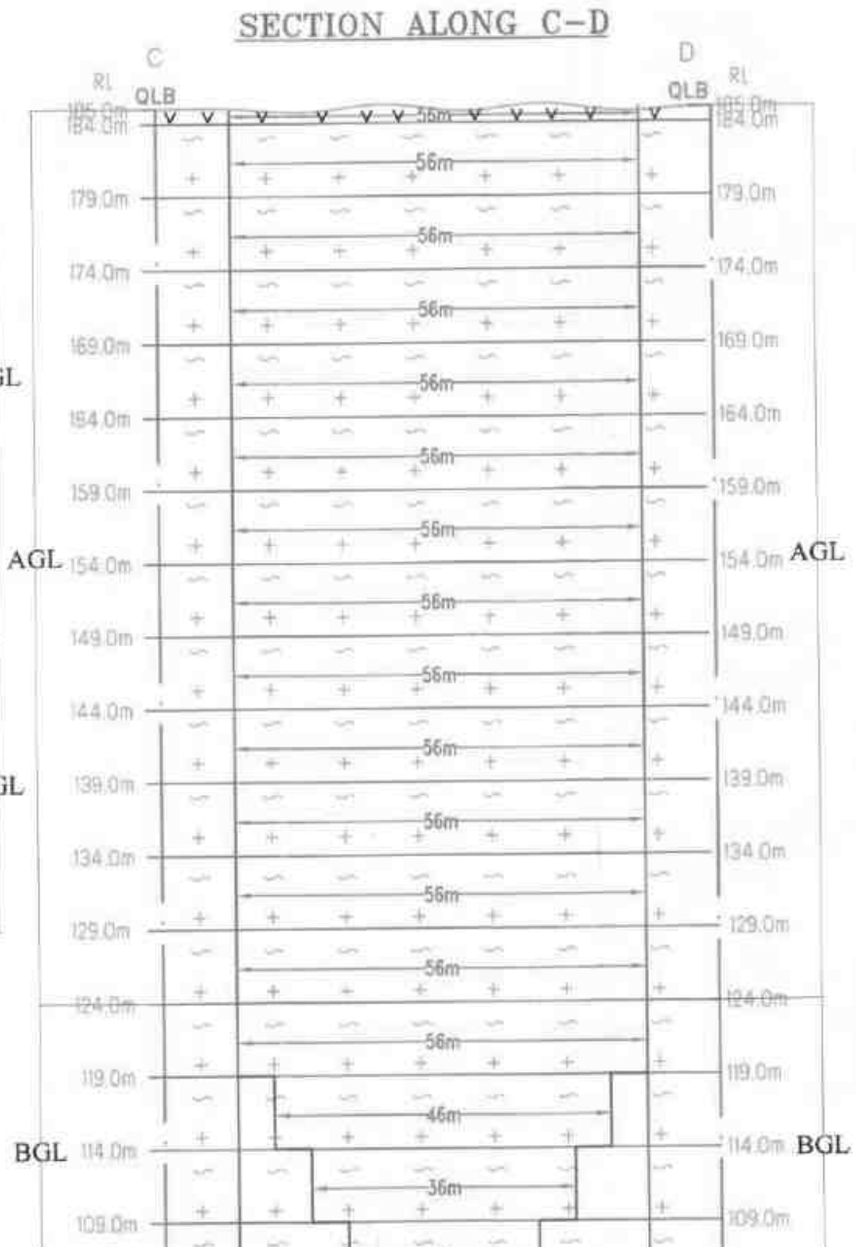


SECTION ALONG C–D



AGL-ABOVE GROUND LEVEL
BGL-BELOW GROUND LEVEL

PLATE NO-IV

DATE OF SURVEY ::

APPLICANT:

THIRU.L.HARIHARAN
NO.9,DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 044.

DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

QUARRY LEASE APPLIED AREA:

S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha,
VILLAGE :PADALUR EAST,
TALUK : ALATHUR,
DISTRICT : PERAMBALUR.

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Q.LEASE APPLIED BOUNDARY	
10m SAFETY DISTANCE	
TEMPORARY BENCH MARK	T.B.M
APPROACH ROAD	
CONTOUR	
SCRUB	
TOPSOIL	V V V
ROUGH STONE	
STRIKE&DIP	
QUARRY PIT	

MINEABLE PLAN & SECTIONS

SCALE 1 : 1000
SECTIONS HOR 1:1000, VER 1:500

PREPARED BY:

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN,M.Sc,M.Phil.
QUALIFIED PERSON

BLOCK-2		
BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
1	11° 06' 59.57"N	78° 50' 26.02"E
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3	11°06' 58.28"N	78° 50' 32.47"E
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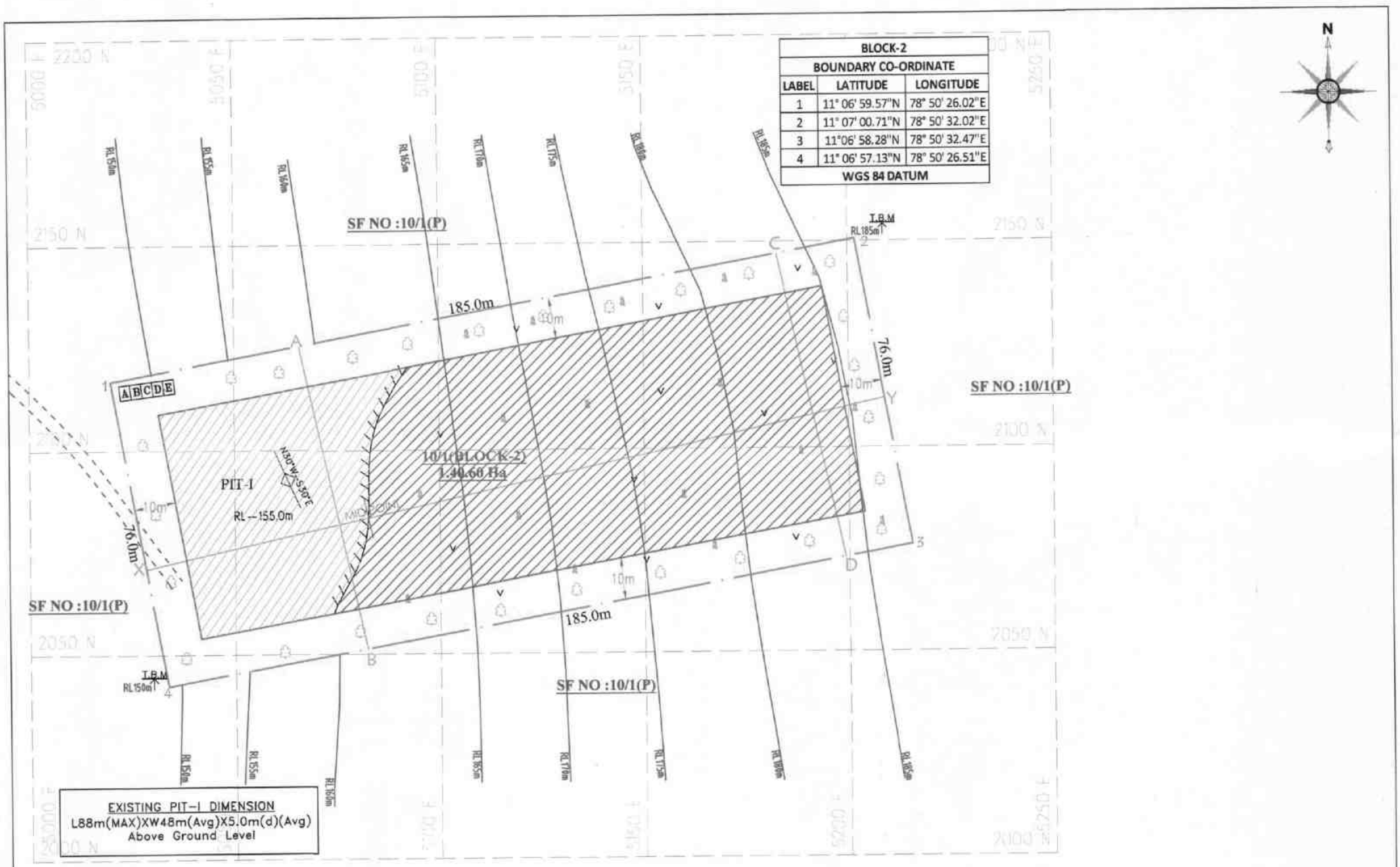
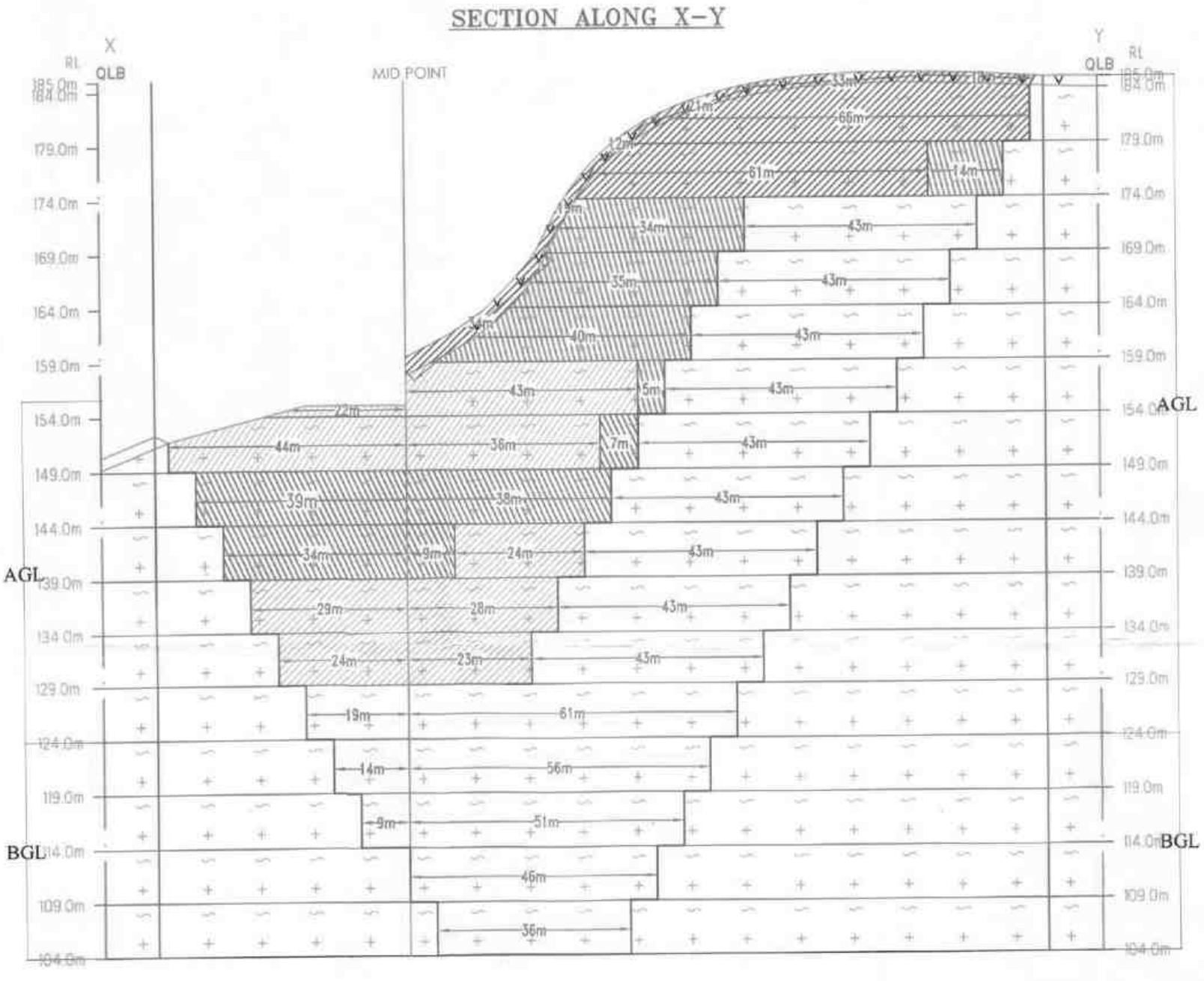
WGS 84 DATUM		



SECTION ALONG X-Y

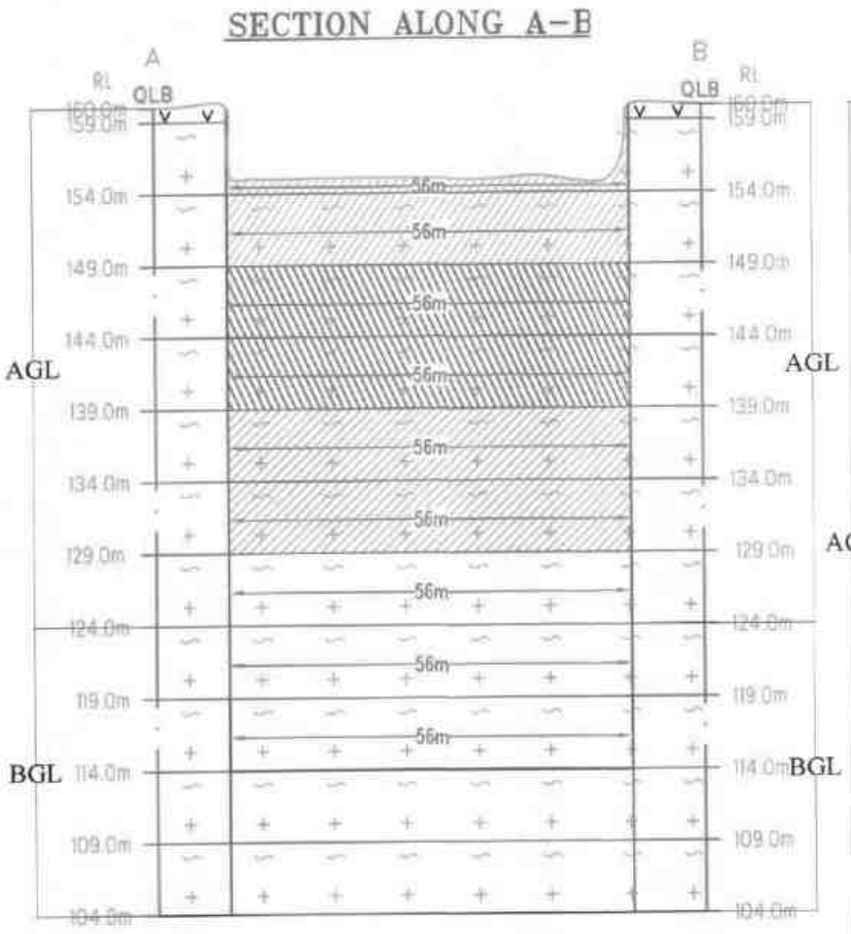


PROPOSED SITE SERVICES
A – OFFICE
B – STORE ROOM
C – FIRST AID ROOM
D – REST SHELTER
E – TOILET

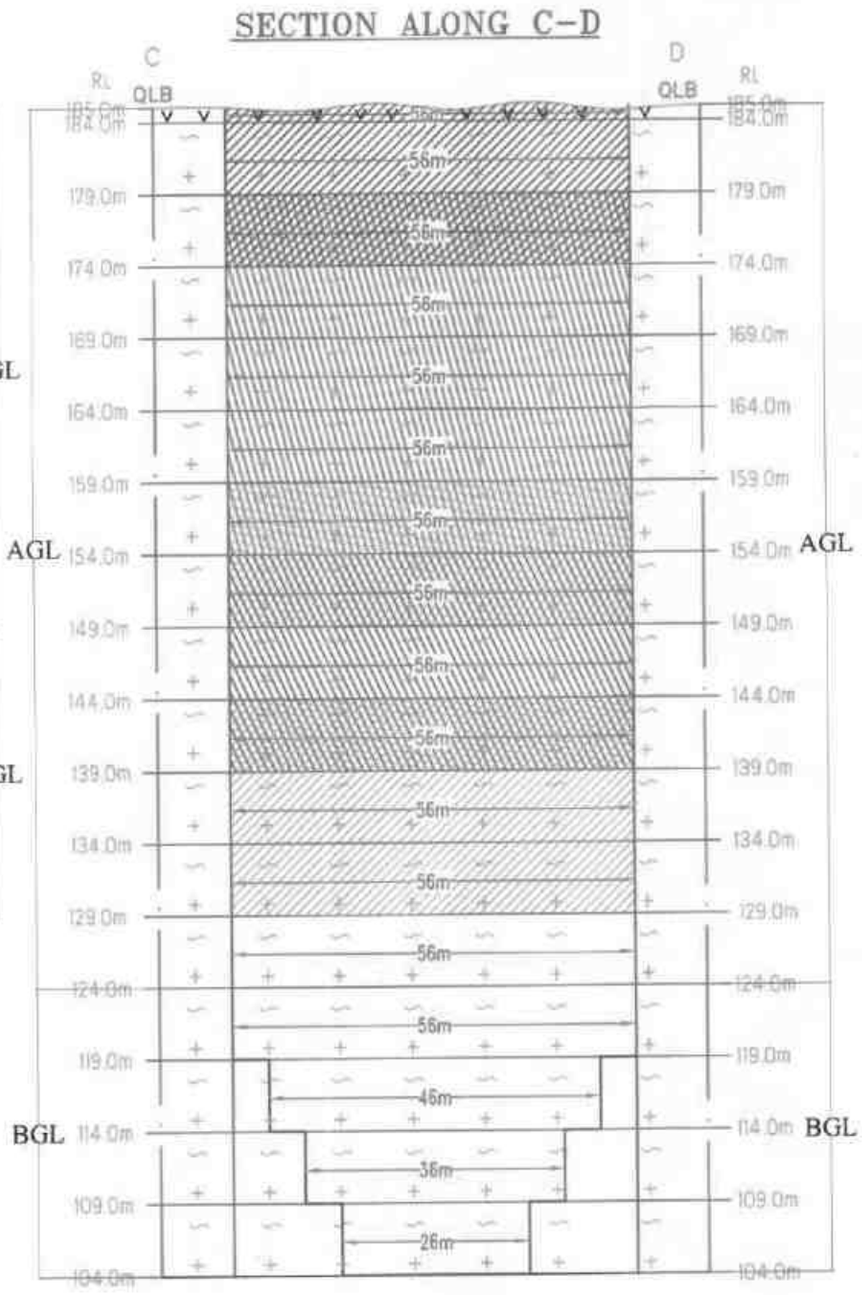
Proposed area to be Planted

1st yr Proposed area to be Quarried
2nd yr Proposed area to be Quarried
3rd yr Proposed area to be Quarried
4th yr Proposed area to be Quarried
5th yr Proposed area to be Quarried

SECTION ALONG A-B



SECTION ALONG C-D



AGL-ABOVE GROUND LEVEL
BGL-BELOW GROUND LEVEL

PLATE NO-V
DATE OF SURVEY :03.05.2025

APPLICANT:
THIRU.L.HARIHARAN,
NO.9,DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 004.

QUARRY LEASE APPLIED AREA:
S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha.
VILLAGE :PADALUR EAST.
TALUK : ALATHUR.
DISTRICT : PERAMBALUR.

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- CONTOUR
- SCRUB
- TOPSOIL
- ROUGH STONE
- STRIKE&DIP
- QUARRY PIT

YEARWISE DEVELOPMENT & PRODUCTION PLAN & SECTION
SCALE 1 : 1000
SECTION HOR 1 : 1000, VER 1: 500

PREPARED BY:

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN,M.Sc,M.Phil.
QUALIFIED PERSON

BLOCK-2		
BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
1	11° 06' 59.57"N	78° 50' 26.02"E
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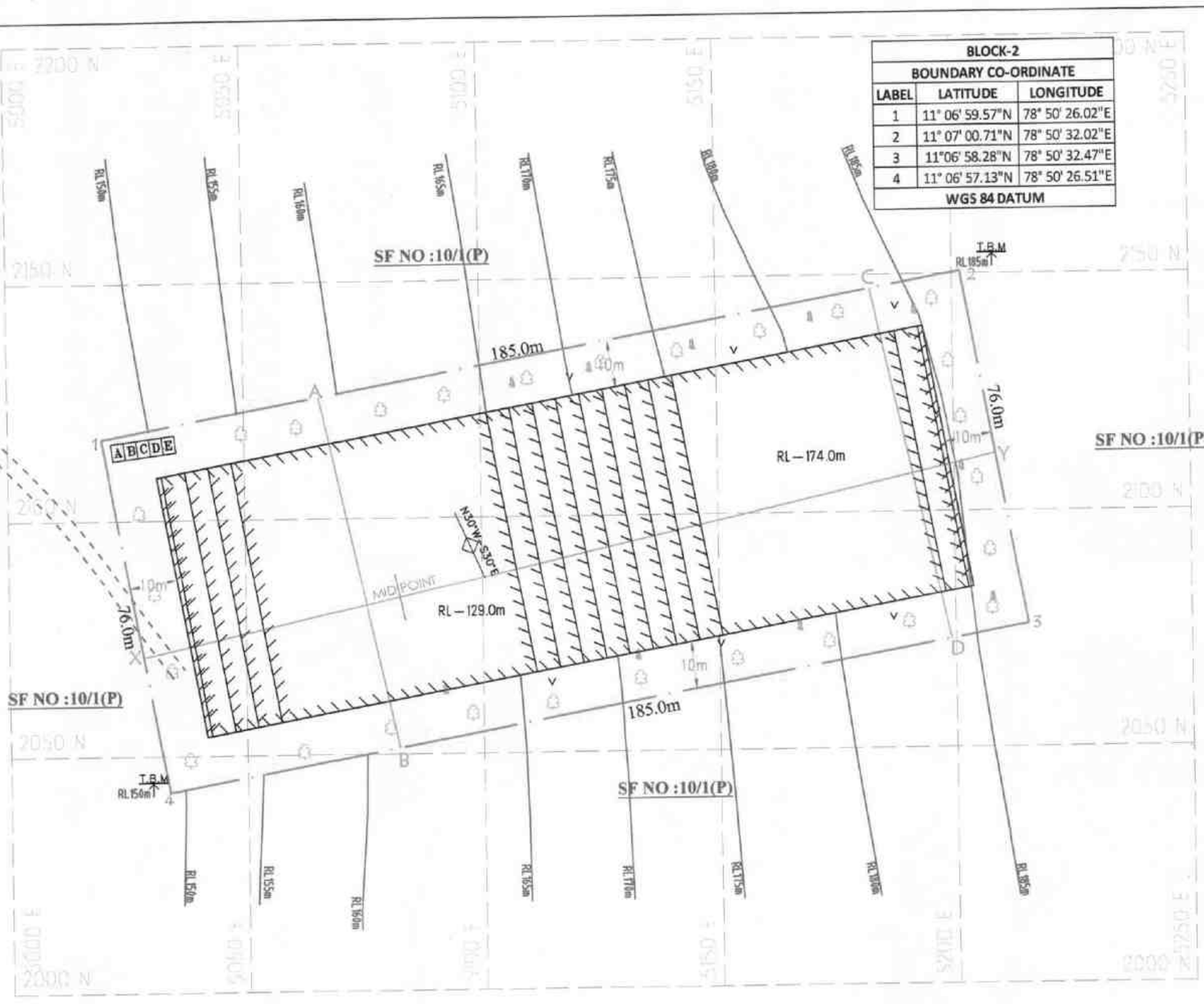
WGS 84 DATUM		



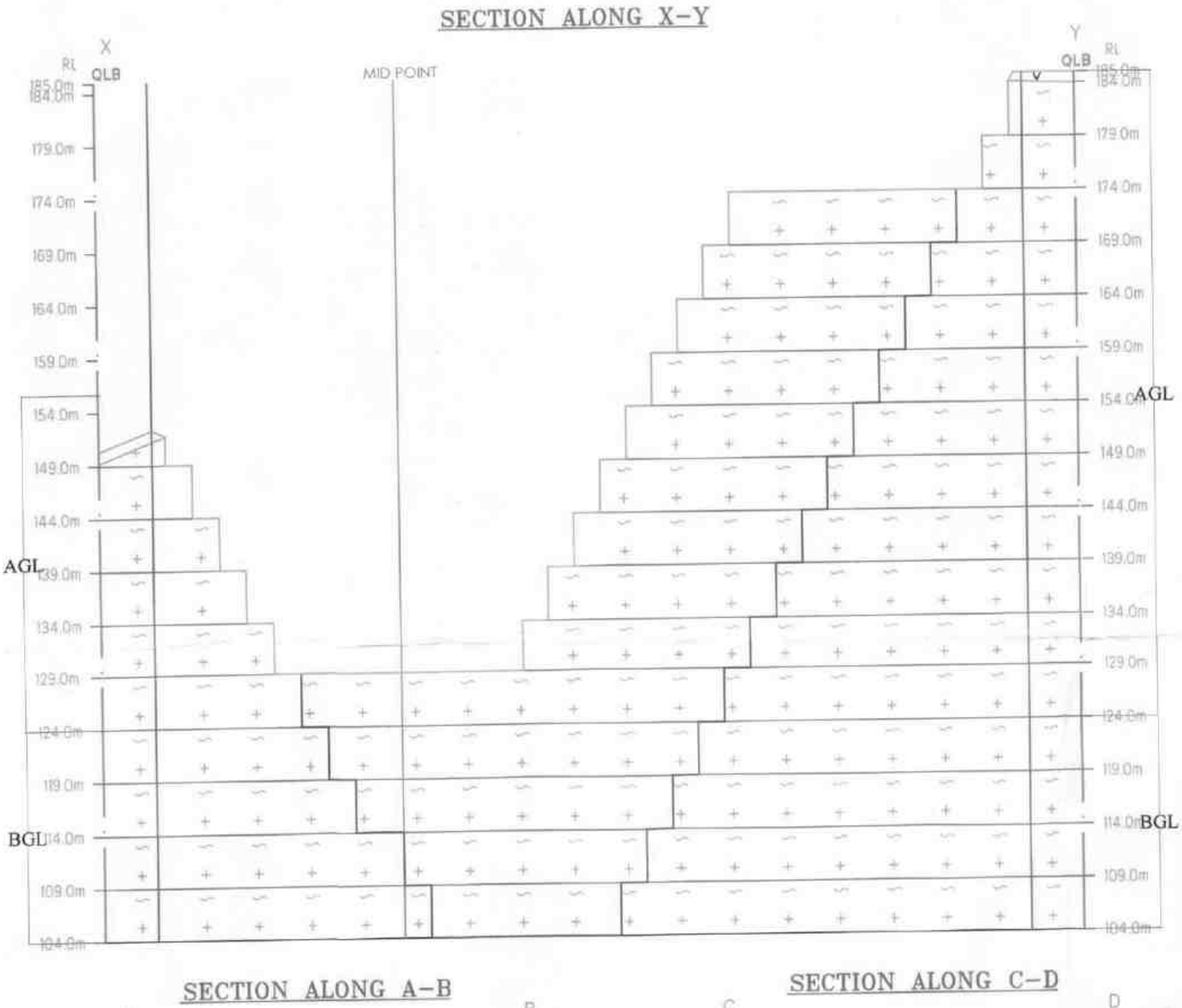
N

PROPOSED SITE SERVICES

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

Proposed area to be Planted

SECTION ALONG X–Y

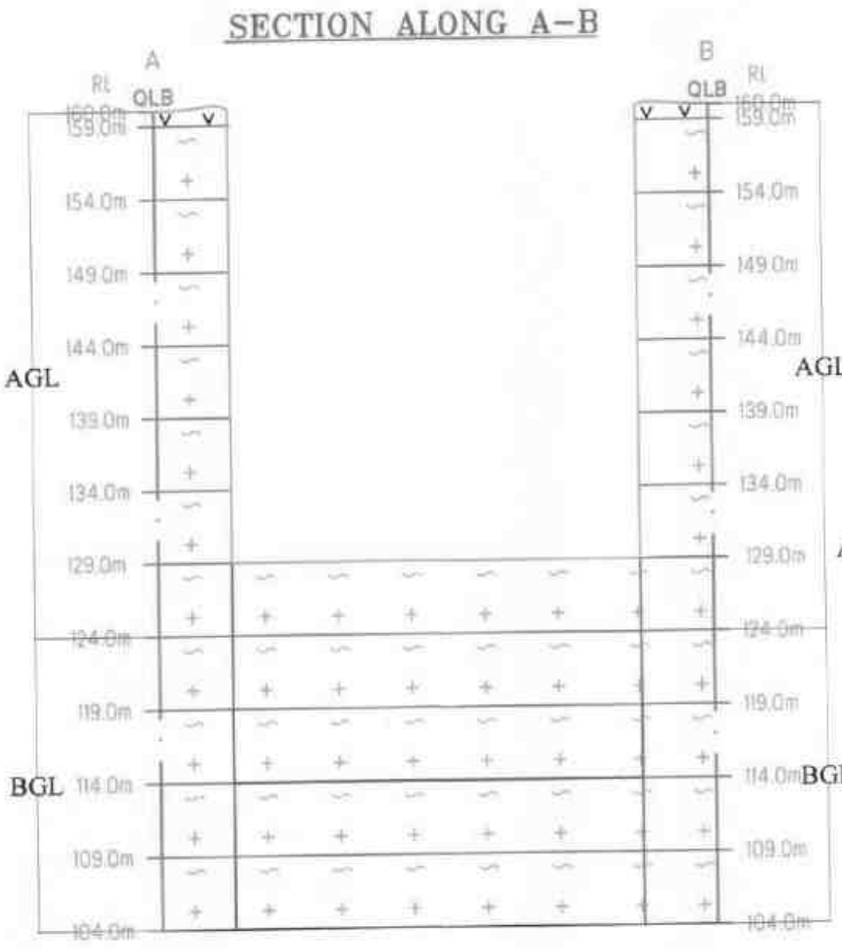


PRESENT & POST LAND USE PATTERN

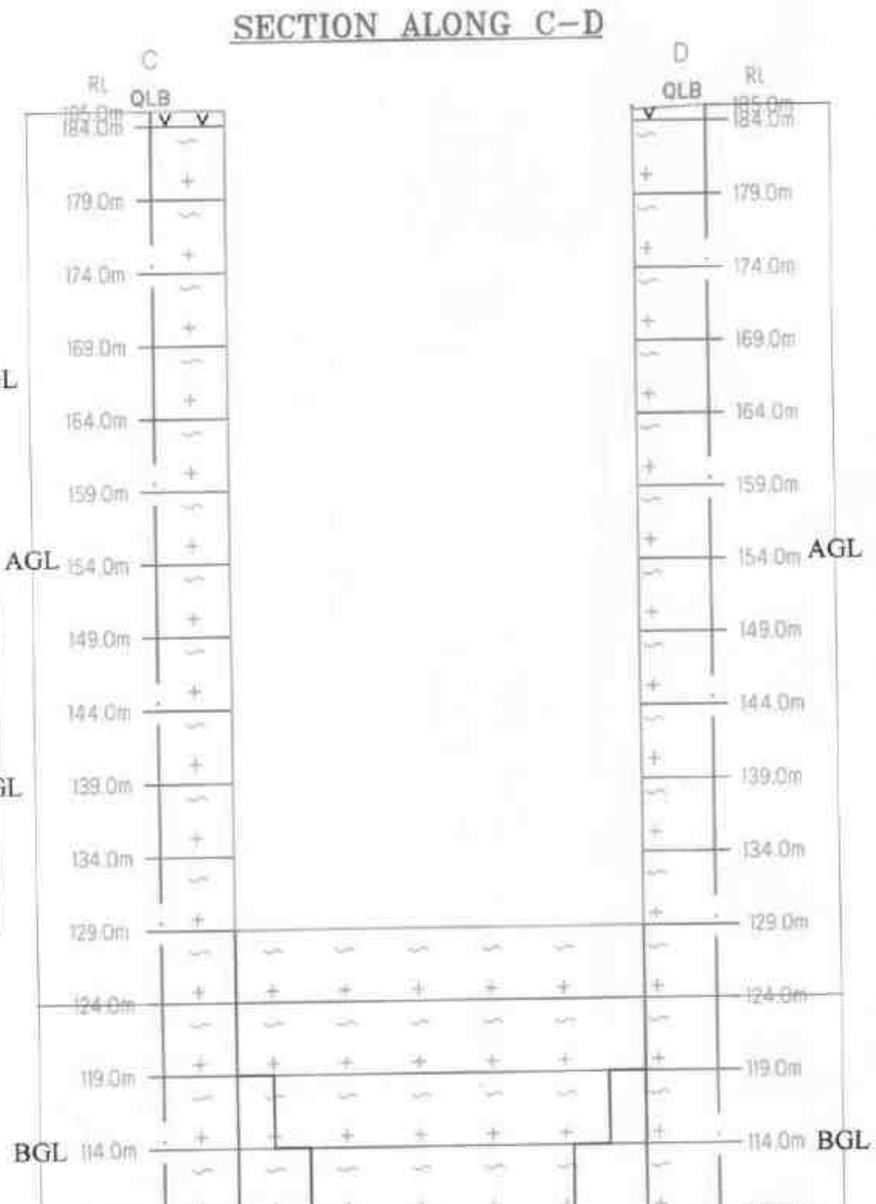
DESCRIPTION	PRESENT AREA (Ha)	AREA AT THE END OF THIS QUARRYING PERIOD (Ha)
AREA UNDER QUARRYING	0.42.20	0.92.50
INFRASTRUCTURE	Nil	0.01.00
ROADS	Nil	0.01.00
GREEN BELT	Nil	0.46.10
UN–UTILIZED AREA	0.98.40	Nil
GRAND TOTAL	1.40.60	1.40.60

ULTIMATE PIT DIMENSION OF END OF THE MINING PLAN PERIOD
L165m(MAX)XW56m(Avg)X56m(d)(Max)
AboveGround level

SECTION ALONG A–B



SECTION ALONG C–D



AGL-ABOVE GROUND LEVEL
BGL-BELOW GROUND LEVEL

PLATE NO-VI
DATE OF SURVEY :03.05.2025

APPLICANT:

THIRU.L.HARIHARAN,
NO.9.DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT – 600 004.

QUARRY LEASE APPLIED AREA:

S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha.
VILLAGE :PADALUR EAST,
TALUK : ALATHUR,
DISTRICT : PERAMBALUR.

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- SCRUB
- TOPSOIL
- ROUGH STONE
- STRIKE&DIP
- PROPOSED QUARRY PIT

PROGRESSIVE QUARRY CLOSER PLAN & SECTION

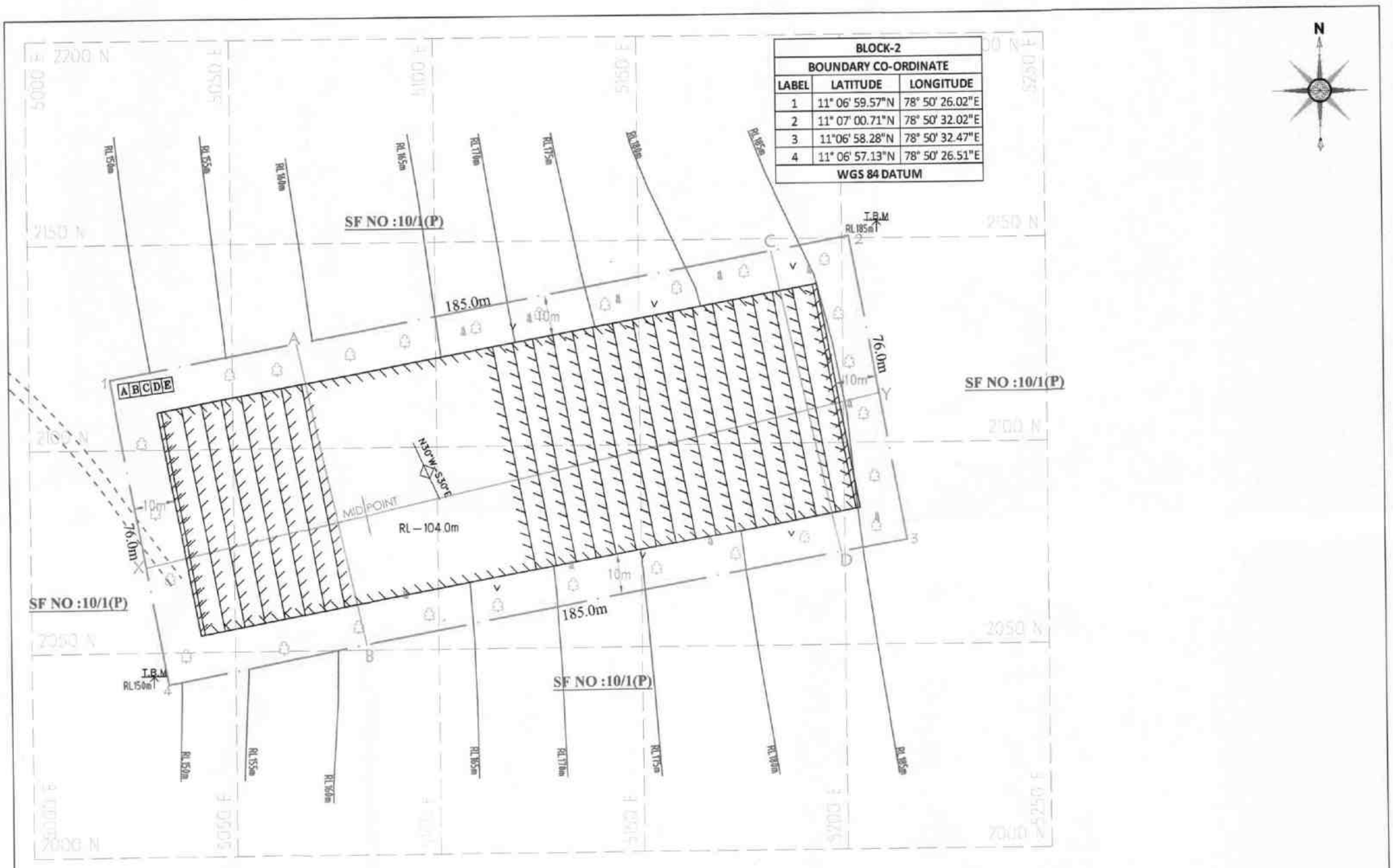
SCALE 1 : 1000
SECTION HOR 1 : 1000, VER 1: 500

PREPARED BY:

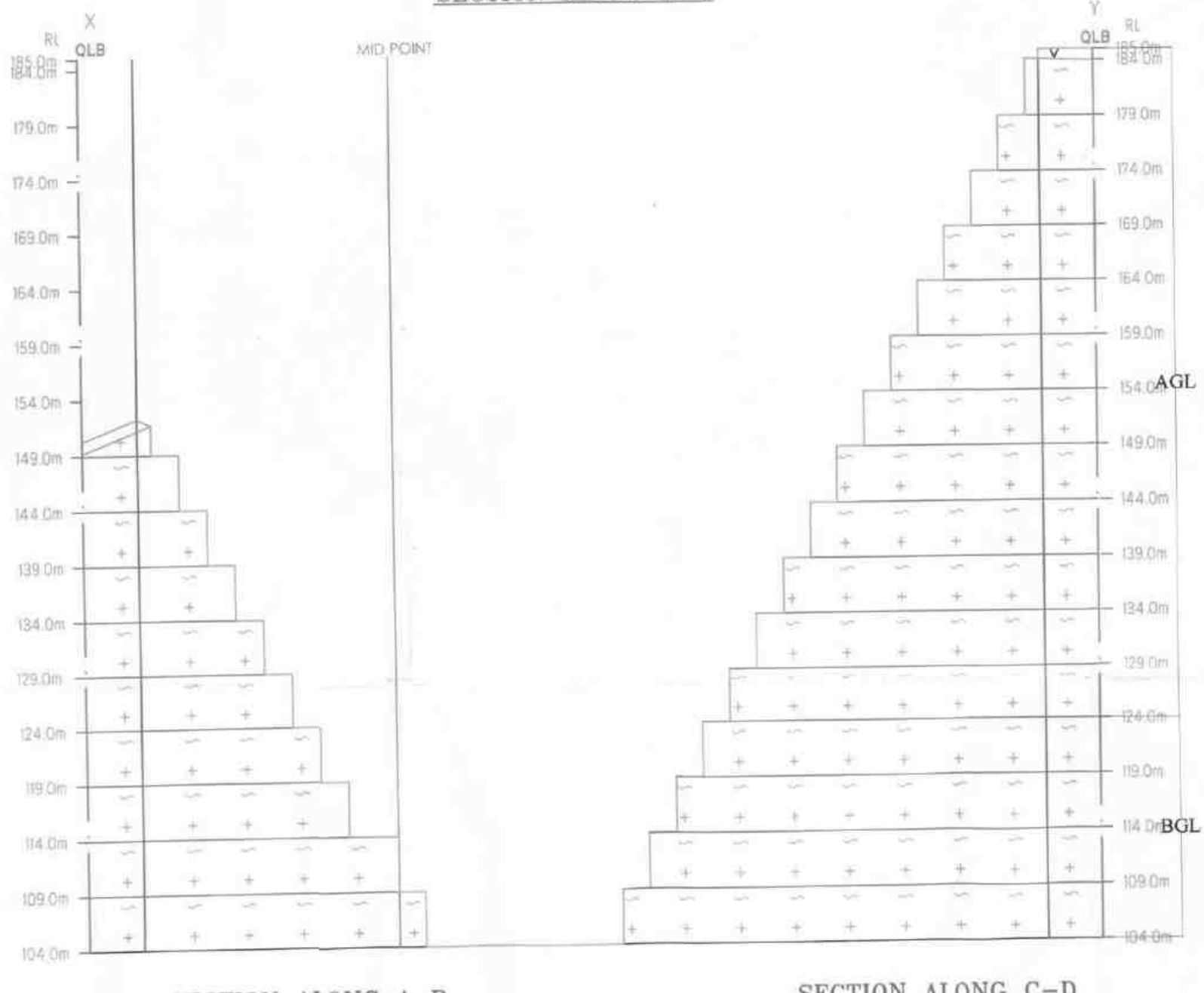
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN,M.Sc,M.Phil.
QUALIFIED PERSON

BLOCK-2		
BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
1	11° 06' 59.57"N	78° 50' 26.02"E
2	11° 07' 00.71"N	78° 50' 32.02"E
3	11°06' 58.28"N	78° 50' 32.47"E
4	11° 06' 57.13"N	78° 50' 26.51"E
WGS 84 DATUM		



SECTION ALONG X–Y



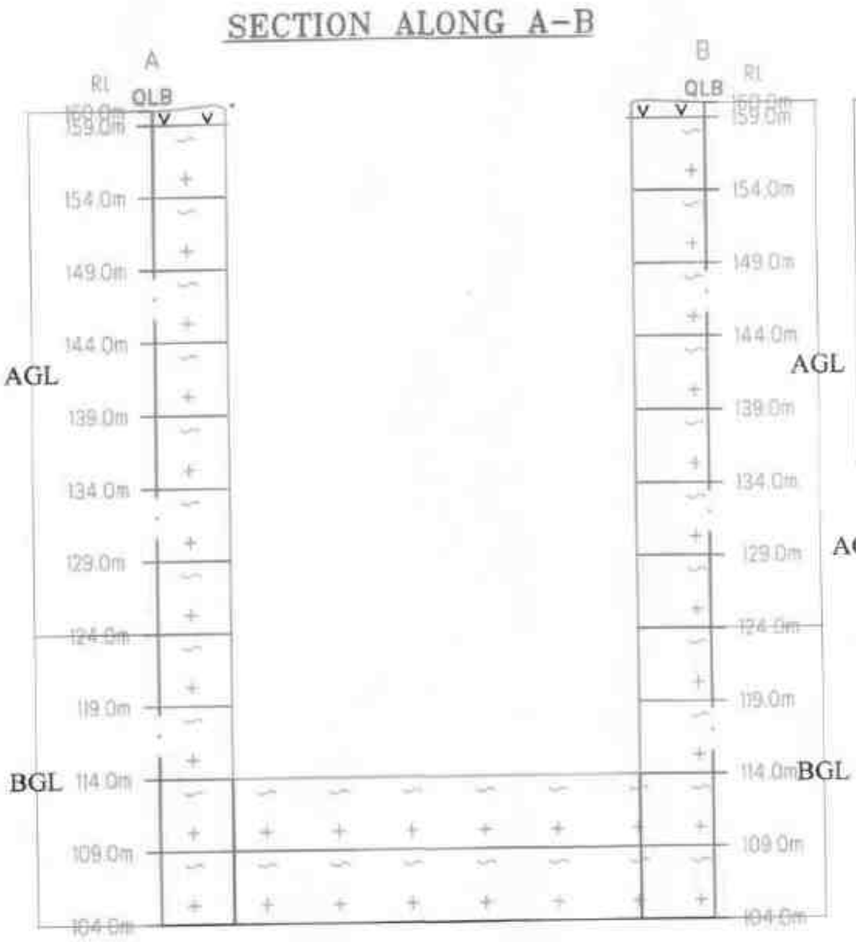
PROPOSED SITE SERVICES

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

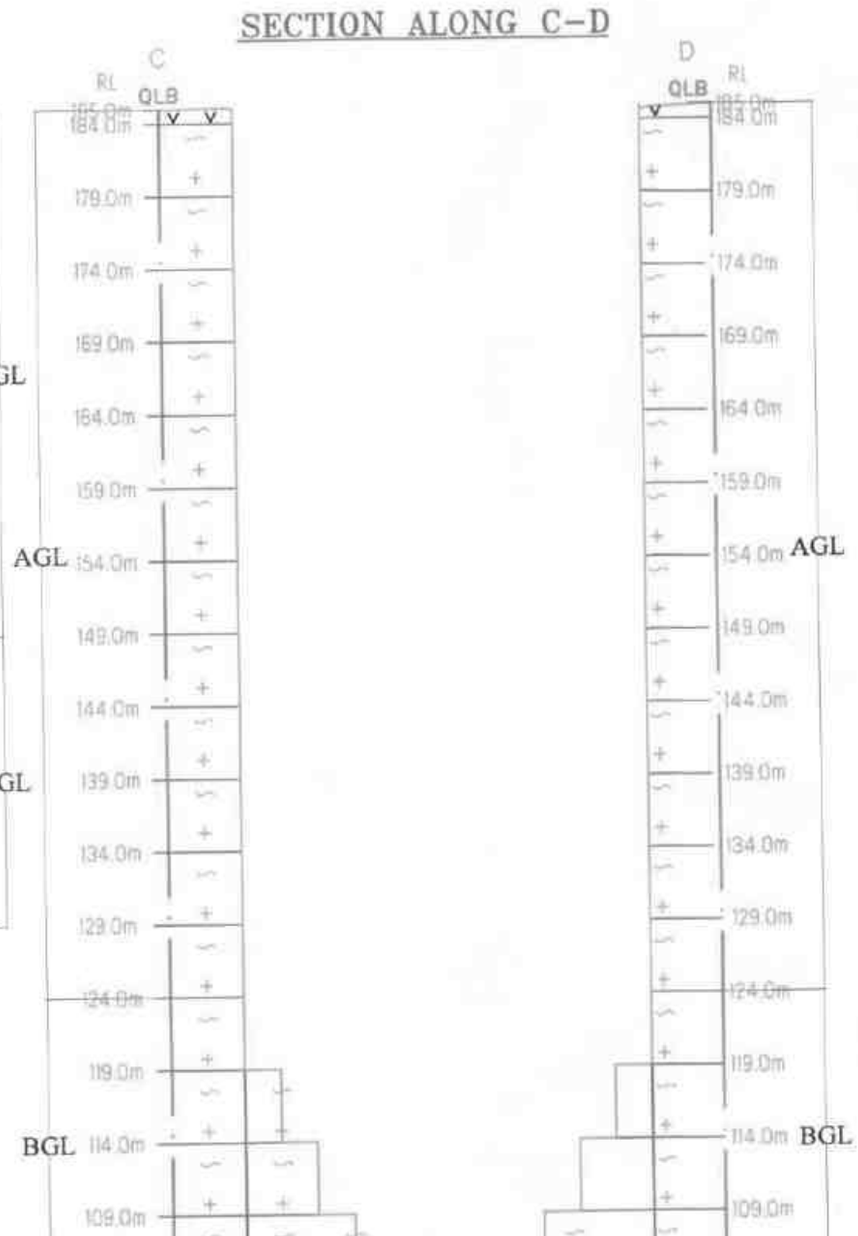
ULTIMATE PIT DIMENSION OF END OF THE QUARRY LEASE PERIOD
L165m(MAX)XW56m(Avg)X81m(d)(Max)
61m Above 20m Below Ground level

Proposed area to be Planted

SECTION ALONG A–B



SECTION ALONG C–D



AGL-ABOVE GROUND LEVEL
BGL-BELOW GROUND LEVEL

PLATE NO-VII
DATE OF SURVEY :03.05.2025

APPLICANT:
THIRU.L.HARIHARAN,
NO.9.DHANALAKSHMI STREET POSTAL NAGAR,
NEMILICHERI CHROMPET,
KANCHEEPURAM DISTRICT - 600 004.

QUARRY LEASE APPLIED AREA:
S.F.NO : 10/1(BLOCK-2),
EXTENT :1.40.60Ha.
VILLAGE :PADALUR EAST,
TALUK : ALATHUR,
DISTRICT : PERAMBALUR.

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- ROUGH STONE
- STRIKE&DIP
- PROPOSED QUARRY PIT

CONCEPTUAL PLAN & SECTION
SCALE 1 : 1000
SECTION HOR 1 : 1000, VER 1: 500

PREPARED BY:

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN, M.Sc.,M.Phil.
QUALIFIED PERSON

ANNEXURE-4

From

Thiru D.Bernard, M.Sc.,
Assistant Director,
Dept of Geology and Mining,
Perambalur.

To

Thiru.Hariharan. L
No. 9,
Dhanalakshmi Street Postal Nagar,
Nemilicheri Chrompet,
Kancheepuram District – 600 044

Rc.No.124/G&M/2025 Dated :03.06.2025

Sub: Mines and Minerals - Perambalur District – Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands - Thiru.Hariharan. L quoted highest Bid amount (H1) For the quarry in S.F.No.10/1 (Block 2), OAE of 1.40.60 hectares in Padalur(East) Village, Alathur Taluk –Declared as H1 bidder – H1 Bid Amount remitted – Precise Area Communicated – Draft Mining Plan submitted for approval - Details of quarries situated within 500 mts radial distance requested – furnished - Reg.

Ref:
1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
2. Perambalur District Gazette(Extraordinary) Notification No.1, dated:18.02.2025.
3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.124/G&M/2025, dated: 28.03.2025
4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.124/G&M/2025, dated 02.05.2025.
5. Thiru.Hariharan. L, letter dated.05.05.2025.

******

The applicant Thiru.Hariharan. L, Perambalur in the reference 5th cited has requested to provide the details of quarries situated within 500 mts radius distance from the proposed lease area referred in the subject.

Accordingly, the details of quarries (existing, proposed, expired, abandoned) situated within 500 mts radial distance from the subject area are furnished below,

1) Existing quarries:

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	GO. No	Lease Period	Remarks
1.	M.Baskaran, S/o.MuthuRediyar Thiruvalakuruchi, Padalur (East) Village, AlathurTaluk, Perambalur District.	Alathur, Padalur (E)	1/7F(P), 1/7G(P), 1/3(P) etc	1.33.0	Rc.No.96/2021/Mines dated 23.05.2024	23.08.2024 to 22.08.2034	Working

2) Proposed quarries:

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period	Remarks
1	Thiru.Hariharan. L No. 9, Dhanalakshmi Street Postal Nagar, Nemilicheri Chrompet, Kancheepuram District – 600 044.	Alathur/ Padalur (East)	10/1 (Block 2)	1.40.6	-	Instant Proposal
2	Thiru. R.Rajkumar S/o. Rajaram, No.4C, 4th floor, Sivam Sri Madhav, Kuttimani Nagar, Pichandar kovil, Trichy-621 216.	Alathur/ Padalur (East)	10/1 (Block 1)	1.50.0	-	Presently proposed
3	Thiru.P.Velmurugan No.1, Royal mahalakshmi Nagar, Virudhachalam, Cuddalore -606 001.	Alathur/ Padalur (East)	10/1 (Block 3)	1.40.0	-	Presently proposed
4	M/s. Rajamalai Metals No. 3/350 H, Jeya Complex, Main Road, Padalur, Perambalur-621 109.	Alathur/ Padalur (East)	10/1 (Block 4)	1.40.0	-	Presently proposed
5	Thiru.M.Thangaraj S/o. Maran, No.158/34A, Abiramapuram west, Collector Office Road,	Alathur/ Padalur (East)	10/1 (Block 5)	2.10.0	-	Presently proposed
6	M/s.SR Mines and Minerals Flat No.2/1, Room No.4,Ramanujam Building,V.N Nagar, Karur Bibass Road, Trichy-620002.	Alathur/ Padalur (East)	10/1 (Block 6)	2.20.0	-	Presently proposed
7	M/s.Mars Mines No.24/7, Padalur East, Alathur Taluk, Perambalur -621 109.	Alathur/ Padalur (East)	10/1 (Block 7)	1.30.0	-	Presently proposed
8	Thiru.Vinoth R 44/4 Subbramaniyar Kovil street, Tittakudi, Cuddalore District-606 106.	Alathur/ Padalur (East)	10/1 (Block 8)	1.20.0	-	Presently proposed
9	M/s.Anjaneyaa Minerals No.3/379J, Ward -08, Main Road, Irur, Alathur Taluk, Perambalur District – 621 109.	Alathur/ Padalur (East)	10/1 (Block 9)	1.20.0	-	Presently proposed

10	Thiru.P.Velmurugan No.1, Royal mahalakshmi Nagar, Virudhachalam, Cuddalore -606 001.	Alathur/ Padalur (East)	10/1 (Block 13)	1.00.0		Presently proposed

3) Expired quarries

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period	Remarks
1	Nil					

4) Abandoned quarries:

Sl. No	Name of the Owner	Taluk /Village	S.F.Nos.	Extent	Lease period	Remarks
1	M.Baskaran, S/o.MuthuRediyar Thiruvalakuruchi, Padalur (East) Village, AlathurTaluk, Perambalur District.	Alathur / Padalur(E)	4(1)(P),4(2) (P) 7(3)(P)	2.00.0	24.01.2018 to 23.01.2023	Further grant of quarry lease is not feasible in these areas.
2	K.Mathiyalagan, S/o.Kanagasabi, State Bank Colony, Kumbakonam.	Alathur / Padalur(E)	10/1 Block 18	1.00.0	23.05.2007 to 22.05.2017	
3	B.Senthilkumar, S/o.P.Balagopal, 454,4th Cross Road, Shanmugam Nagar, Uiyakondam, Thirumalai, Trichy	Alathur / Padalur(E)	10/1 (Part)	1.00.0	12.04.2006 to 11.04.2016	
4	M.Ravi, S/o.Muthukrishnan, No2/78, Malaiyadivaram, Chettikulam Post, Kunnam TK, Perambalur District.	Alathur / Padalur(E)	10/1 Block 20	1.00.0	11.05.2007 to 10.05.2017	
5	V.Panneerselvam, S/o.Veerasamy, South Street, Thennamanadu Post, Orathanadu Taluk, Thanjavur Dt	Alathur / Padalur(E)	10/1, Block 22	1.00.0	31.05.2011 to 30.05.2021	
6	R.Sureshbabu, S/o.V.Rajagopal, No.244, Philomina Nagar, 3rd Street, Nanjikottai Road, Thanjavur.	Alathur / Padalur(E)	10/1 Block 17	1.00.0	23.05.2007 to 22.05.2017	
7	Thiru.A.T.Natarajan, S/o.Thiru vanaigoundar, Irur Village, AlathurTaluk, Perambalur District.	Alathur / Irur	713/5 etc	1.34.0	28.11.2018 to 27.11.2023	

8	S.N.Vinoba, S/o. S.Nagarajan, 2/163, 2nd cross , Lakshmipuram, Ariyamangalam, Trichy-10	Alathur / Padalur(E)	10/1 Block 5	1.00.0	26.04.2007 to 25.04.2012	Further grant of quarry lease is not feasible in these areas
9	D.Raja chithambaram, S/o. Duraisamy, No.236, Reddiyar Street, Sirdevimangalam, Manachanallur Taluk, Trichy District.	Alathur / Padalur(E)	10/1 Block 6	1.00.0	11.05.2007 to 10.05.2012	

03/06/25

Assistant Director,
Geology and Mining,
Perambalur.

3/6/25

ANNEXURE-5

செய்வதற்கு மேலும், அனைத்து உரிய, பயனுள்ள
அதற்கு தேவை விசாரணை அதிகாரம் உடனடி தேவை:

தேவைப்படும் மேலும், தேவைப்பட்டால்,
எதிர்காலத்தில், 4 தினங்களுக்கு ஒரு முறை நேரில் ஆய்வு செய்து. மேற்கொண்டு நான் தெரிவிப்பேன்.
அனைத்து உரிய, பயனுள்ள அதற்கு தேவை 4ல் எண்
10/1 புல 66.56.18 ஹெக்டேர் பரப்பு 2 புல
1.40.4 ஹெக்டேர் இவர்களுக்கு உரிமை வழங்கியுள்ளார்.
மேலும் 4ல் எண் 10/1 பரப்பு 2 ல் தென்னை 300
மரங்கள் இருப்பதாக பதிவு செய்துள்ளார். புகார்தாரர் இல்லாத நிலையில்,
பரிசீலித்து, மேலதிக நடவடிக்கை எடுக்கும் பொருட்டு
தெரிவிக்கப்படுகிறது. மேற்படி 50 மரங்கள் தென்னை மரங்கள் இல்லை
என்ற தெரிவிக்கப்படுகிறது.

R. J. [illegible]
17/6/25

கிராம நிர்வாக அலுவலர்
73 – பாடாலூர் (கிழக்கு),
ஆலத்தூர் வட்டம்,
பெரம்பலூர் மாவட்டம்.

TOPOGRAPHICAL VIEW OF PADALUR (EAST)

ROUGH STONE QUARRY

NAME OF THE APPLICANT :		THIRU. L.HARIHARAN
EXTENT	:	1.40.60 Ha
S.F.NO	:	10/1 (BLOCK-2)
VILLAGE	:	PADALUR (EAST)
TALUK	:	ALATHUR
DISTRICT	:	PERAMBALUR
STATE	:	TAMIL NADU

VAO SIGN & SEAL
கிராம நிர்வாக அலுவலர்
73 – பாடாலூர் (கிழக்கு),
ஆலத்தூர் வட்டம்,
பெரம்பலூர் மாவட்டம்.

Place: Padalur East

Date: 18.06.2025

ANNEXURE-6

ANNEXURE 14

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

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Registered No. TN / SRGM —10

PERAMBALUR DISTRICT GAZETTE

EXTRAORDINARY PUBLISHED BY AUTHORITY

PERAMBALUR, FEBRUARY 18, 2025

No. 1]

[Maasi 06, Kurothi, Thiruvalluvar Aandu - 2056]

NOTIFICATION BY THE COLLECTOR

(Rc. No.35 / G&M / 2022, Dated : 17–02–2025)

E-mail: (minespmb@gmail.com)

Notice Inviting Tender(NIT)

"Inviting Application for Grant of Roughstone Quarry Leases in Government Lands"

In exercise of the power conferred by Section 15 of Mines and Mineral (Development & Regulation) Act, 1957 and in accordance with the Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959 read with G.O. Ms. No.21, Natural Resources (MMC.1), 31st July 2024 as amended from time to time notified thereunder, the District Administration of Perambalur District, Tamil Nadu has identified 44 (Forty four) areas for Roughstone Quarries in Perambalur District as indicated in the Annexure-I.

The E-tender with forward bidding will be conducted through online electronic platform with url address https://tntenders.gov.In and hereby invites applications for the said purpose.

Aspiring applicants can register themselves as bidders using their Digital Signature certificate on the portal https://tntenders.gov.in On Successful registration, bidders will obtain login ID and password necessary for submitting the application and for participation in the e-auction process. **Bidders Manual Kit** in the portal https://tntenders.gov.in provides with all requisite illustrations guiding through various stages of the e-auction process.

The terms and conditions of the e-auction process, details of application fee and bid security amount, detailed information regarding the notified areas, model affidavits to be uploaded in the technical bid are available in the detailed tender document, that can be downloaded free of cost in the portal https://tntenders.gov.in

Intending bidders are advised to visit the mentioned site regularly till closing date of E-auction for any corrigendum / addendum / amendment.

DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

Application Fee – Rs.5,000 (Non – Refundable) for each quarry

Bid submission start date	:	19–02–2025 from 10.00 hrs
Bid Submission end date	:	22–03–2025 upto 16.00 hrs
Financial bid opening andlive e-auction date	:	Will be intimated later on through Tamil Nadu e-Tender portal

ANNEXURE – I

Tender File No.Rc.No.35/G&M/2022, Dated : 17–02–2025

List of Areas identified in Government lands in Perambalur District of Tamil Nadu for Grant of Rough Stone Quarry Leases through e-Auction.

Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Perambalur	Kalpadi(N)	328/2 Block 31	1.10.0	Unassessed waste land - Malai	5
2	Perambalur	Kalpadi(N)	328/2 Block 34	1.00.0	Unassessed waste land - Malai	10
3	Perambalur	Kalpadi(N)	328/2 Block 35	1.50.0	Unassessed waste land - Malai	5
4	Perambalur	Kalpadi(N)	328/2 Block 36	1.00.0	Unassessed waste land - Malai	5
5	Perambalur	Kalpadi(N)	328/2 Block 37	1.00.0	Unassessed waste land - Malai	5
6	Perambalur	Kalpadi(N)	328/2 Block 38	1.00.0	Unassessed waste land - Malai	10
7	Perambalur	Chatramanai	23 Part-1	1.10.0	Unassessed waste land – Eli Kundru	5
8	Perambalur	Thurai mangalam	280/13A1 Block-8	1.00.0	Unassessed waste land - Kundru	10
9	Perambalur	Elambalur	27/1A (Block-1)	1.20.0	Unassessed waste land - Malai	5
10	Perambalur	Elambalur	27/1A, (Block-2)	1.80.0	Unassessed waste land - Malai	10
11	Perambalur	Elambalur	27/1A, (Block-3)	2.50.0	Unassessed waste land - Malai	10
12	Perambalur	Aranaral(N)	120/2A1A (Part-1)	1.50.0	Unassessed waste land - Kundru	10
13	Perambalur	Aranaral(N)	120/2A1A (Part-2)	1.50.0	Unassessed waste land - Kundru	10
14	Perambalur	Aranaral(N)	120/2A1A (Part-3)	1.80.0	Unassessed waste land - Kundru	5
15	Perambalur	Sengunam	52/1(Part-1)	1.80.0	Unassessed waste land - Malai	10
16	Perambalur	Sengunam	52/1(Part-2)	1.40.0	Unassessed waste land - Malai	10

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR *3

Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
17	Perambalur	Sengunam	52/1(Part-3)	1.50.0	Unassessed waste land - Malai	10
18	Alathur	Narana mangalam	300/1 Part	2.02.0	Unassessed waste land - Malai	5
19	Alathur	Narana mangalam	324/1 Block-1	2.00.0	Unassessed waste land - Kallankuthu	5
20	Alathur	Nattar mangalam	195 Part	1.50.0	Unassessed waste land - Kallankuthu	5
21	Alathur	Nattar mangalam	258 Block-1	1.00.0	Unassessed waste land - Malai	5
22	Alathur	Nattar mangalam	258 Block-2	2.00.0	Unassessed waste land - Malai	5
23	Alathur	Padalur(E)	10/1 Block 1	1.50.0	Unassessed waste land - Kallankuthu	5
24	Alathur	Padalur(E)	10/1 Block 2	1.40.60	Unassessed waste land - Kallankuthu	10
25	Alathur	Padalur(E)	10/1 Block 3	1.40.0	Unassessed waste land - Kallankuthu	5
26	Alathur	Padalur(E)	10/1 Block 4	1.40.0	Unassessed waste land - Kallankuthu	5
27	Alathur	Padalur(E)	10/1 Block 5	2.10.0	Unassessed waste land - Kallankuthu	5
28	Alathur	Padalur(E)	10/1 Block 6	2.20.0	Unassessed waste land - Kallankuthu	10
29	Alathur	Padalur(E)	10/1 Block 7	1.30.0	Unassessed waste land - Kallankuthu	5
30	Alathur	Padalur(E)	10/1 Block 8	1.20.0	Unassessed waste land - Kallankuthu	5
31	Alathur	Padalur(E)	10/1 Block 9	1.20.0	Unassessed waste land - Kallankuthu	5
32	Alathur	Padalur(E)	10/1, Block-13	1.00.0	Unassessed waste land - Kallankuthu	5
33	Alathur	Padalur(E)	123 Block 1	1.50.0	Unassessed waste land - Kallankuthu	5
34	Alathur	Padalur(E)	123 Block 2	1.50.0	Unassessed waste land - Kallankuthu	5
35	Alathur	Padalur(E)	123 Block 3	1.50.0	Unassessed waste land - Kallankuthu	5
36	Alathur	Padalur(E)	123 Block 4	2.00.0	Unassessed waste land - Kallankuthu	5
37	Alathur	Padalur(E)	172 Block 1	1.50.0	Unassessed waste land - Kallankuthu	5

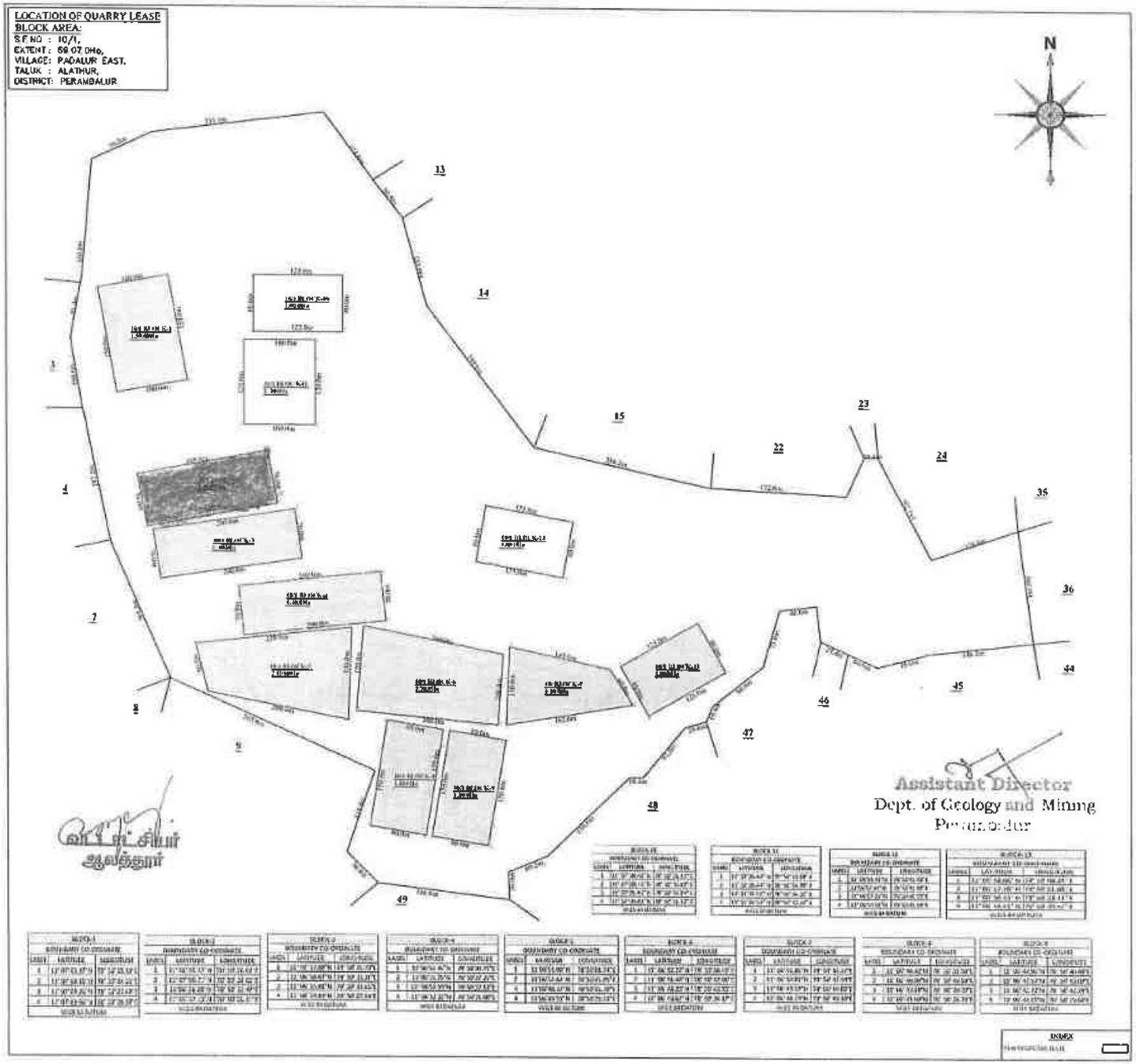
ASST. DIRECTOR OF GEOLOGY AND MINING
PERAMBALUR

Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
38	Alathur	Padalur(E)	172 Block 2	1.50.0	Unassessed waste land - Kallankuthu	5
39	Alathur	Padalur(E)	172 Block 3	1.50.0	Unassessed waste land - Kallankuthu	5
40	Veppanthattai	Vengalam(E)	200/1B Part, Block-13	1.50.0	Unassessed waste land - Malai	10
41	Veppanthattai	Vengalam(E)	200/1C, Part, Block-1	1.40.0	Unassessed waste land - Malai	10
42	Veppanthattai	Vengalam(E)	200/1C, Part, Block-14	1.40.0	Unassessed waste land - Malai	10
43	Veppanthattai	Vengalam(E)	200/1C Part, Block-15	1.50.0	Unassessed waste land - Malai	10
44	Veppanthattai	Vengalam(E)	200/1C Part, Block-16	1.50.0	Unassessed waste land - Malai	10

Perambalur,
17th February 2025.

GRACE PACHUAU,
District Collector.

Printed by the Commissioner of Stationery and Printing at the Government Branch Press, Tiruchirappalli
and published by the Collector of the District.



LEASE APPLIED AREA

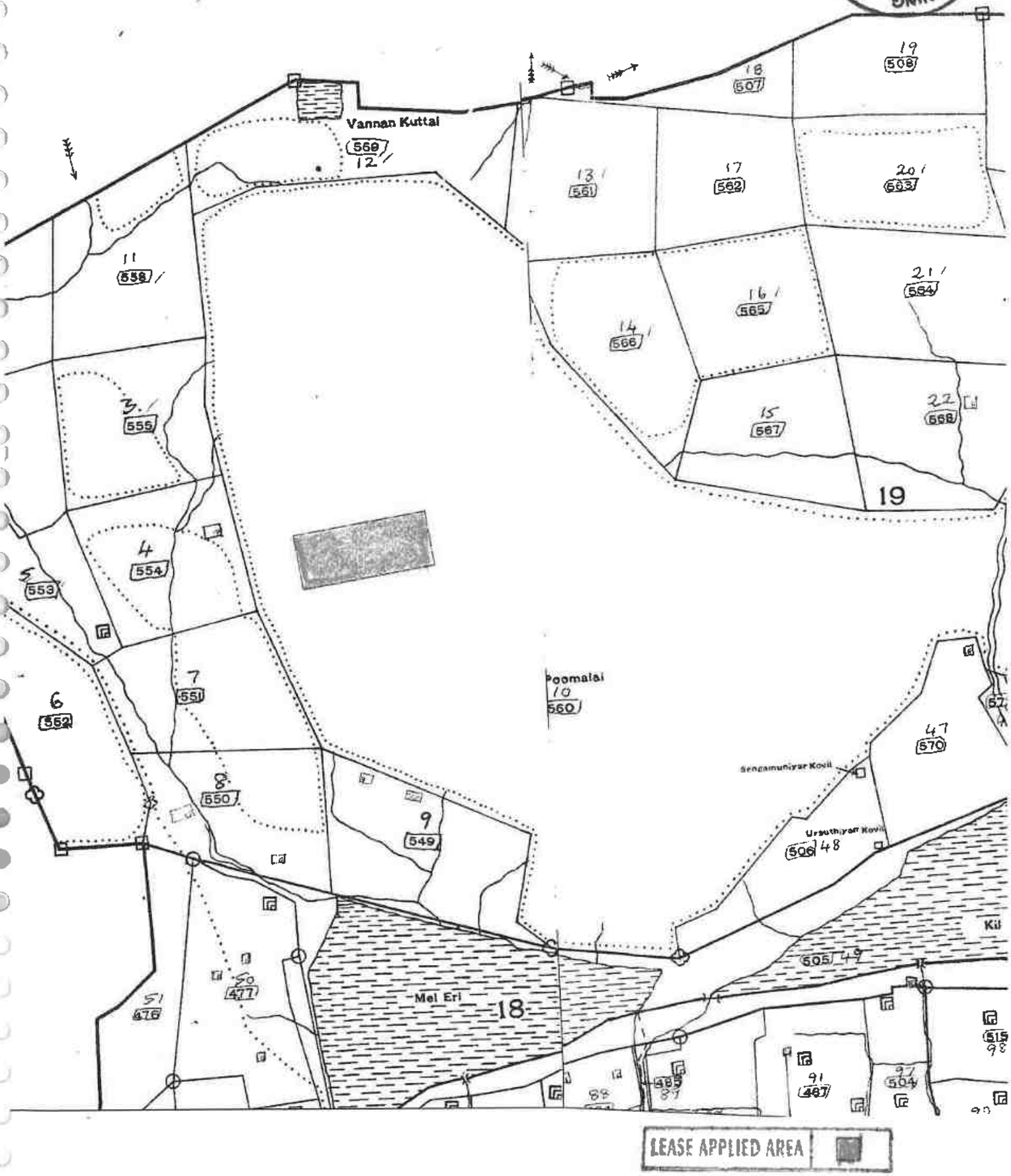
ANNEXURE - I

ASST. DIRECTOR OF GEOLOGY AND MINING * PERAMBALUR

ANNEXURE VII

ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

PADALUR EAST BH NO. 1



LEASE APPLIED AREA

1434 ஆம் பசலியில் கொம்பாதுர் மாவட்டம் திண்டிவனம் கிராமக் கணக்கு வட்டம் 73. பாடாலூர் தெற்கு

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர்.	சாகுபடி வாளின் பெயர்.	முதல் போகம்.					இரண்டாம் போகம்.					கீழ்க்கண்டவகையில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பாப்பின் விவரங்கள் ஒவ்வொரு நில அளவை எண் அல்லது அதன் பகுதியில்.	பயிர் பார்வையிடும் அலுவலர் குறிப்புரைகள்.
நில அளவை எண்.	உட்பிரிவு எண்.	பரப்பு.	தீர்வை.	ஒரு போகம் அல்லது இரு போகம்.		நிலத்தின் சந்த பகுதி பாவது சாகுபடியாளால் பயிரிடப்பட்டுள்ளதா.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை செய்யப்பட்டது	பயிரின் பெயர்.	பயிரான / அறுவடை யான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரக்காடு.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்	விளைச்சல் அளவு விபரக்காடு.	கிராம அலுவலரின் குறிப்புரை :- (1) புலன்களின் பகுதிகளில் பயிரிடப்பட்ட விபரங்கள் ஆராயில் (2) கைப்பற்றும் நிலங்களின் சாகுபடியின் தன்மையும் (3) முந்தைய மாதத்தில் பயிரிடப்பட்ட நிலங்களுக்கு பிந்தைய மாதங்களில் நீர் பாய்ச்சப்பட்ட விவரங்கள்.	(அ) வனம், (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலம், (இ) விவசாயம் மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம், (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும், (ஊ) விதைக்கப்பட்ட நிகர பயிரில் சேர்க்கப்படாத மரவகைப் பயிர்களும் தோப்புகளும், (எ) நடப்புத் தரிசுகள் (ஏ) இதர தரிசு நிலங்கள்.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(16)	(18அ)	(19)
10	1	6.32.00	1		—		—	—									கொம்பாதுர்		
						12 கொம்பாதுர்													
						27-6													
						30-9-27													
						கிராம நிர்வாக அலுவலர் 73 – பாடாலூர் (தெற்கு) நூலத்தூர் வட்டம், திண்டிவனம் வட்டம்.													

380/21-R.F. III-A-10-20,00,000 Cps.-GBP.-Mdu.-7-2022.

எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

ANNEXURE IV

ANNEXURE V
ASST. DIRECTOR OF GEOLOGY AND MINING PERAMBALUR

1	2	3	4	5	6	7	8	9	10	11	
							ரூ.மை	மெ.டன்	ரூ.மை		
8	3A	8-3A	ர	4	...	8-4	16	1 09	0 26·0	0 28	653 தெ.ரா.மணி(1). சு.முத்து சாமி(2).
	3B	-3B	அ	4	...	8-4	16	1 09	1 26·5	1 37	..... தரிசு.
	4	-4	ர	4	...	8-4	16	1 09	0 20.0	0 22	653 தெ.ரா.மணி(1). சு.முத்தம் மாள்(2). சதுரக் கிணறு
	5	-5	ர	4	...	8-4	16	1 09	1 22·5	1 33	5 ரா.அமிர்தம் மாள். சதுரக் கிணறு
									3 79·0	3 78	
9	1A	9-1A	அ	4	...	8-4	16	1 09	0 21·0	0 23	... தரிசு.
	1B	-1B	ர	4	...	8-4	16	1 09	1 02.5	1 11	604 வி.ரெங்கம் மாள். சதுரக் கிணறும் கூரைவீடும்.
	1C	-1C	ர	4	...	8-4	16	1 09	1 43·5	1 56	632 தெ.வீரன் செட்டி.
	2	-2	அ	புற	...	...	...	...	1 73·0	...	..... நீர்ப்பிடிப்பு
									4 40·0	2 90	
10	1	10-1	அ	இ.ஏ.த	...	...	...	...	66 61.5	...	..... கல்லாங் குத்து.
	2	-2	அ	4	...	8-4	16	1 09	2 08·5	2 98	..... தரிசு.
									68 70·0	2 98	
11	1	11-1	ர	4	...	8-4	16	1 09	0 38·0	0 42	65 தெ.ராமராஜ்.
	2	-2	அ	புற	...	...	...	...	0 13·5	...	..... வாரி.
	3A	-3A	அ	4	...	8-4	16	1 09	1 18.0	1 28	..... தரிசு.
	3B1	-3B பா	ர	4	...	8-4	16	1 09	0 06.0	0 07	128 வீ.ராமலிங்.
	3B2	-3B பா	ர	4	...	8-4	16	1 09	0 06.5	0 08	6 வீ.அண்ணாவி.
	3B3	-3B பா	ர	4	...	8-4	16	1 09	0 03.0	0 06	175 பொ.சாமிக் கண்ணு.
	3B4	-3B பா	ர	4	...	8-4	16	1 09	0 03.0	0 06	307 பொ.குப் புசையா.

ANNEXURE-7

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Phone Number +91 82208 36377 Email: -**info@shrientanalytical.com**
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/1917	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1917	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	04.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	65.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

.

For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/1918	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1918	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	04.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/1919	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1919	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	05.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	68.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	32.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1920	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1920	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	05.03.2025	Test Completed on	17.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1921	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1921	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	06.03.2025	Test Completed on	17.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1922	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1922	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	06.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1923	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1923	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	07.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1924	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1924	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	07.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/1925	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1925	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/1926	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1926	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1927	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1927	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1928	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1928	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1929	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1929	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1930	Report Date.	17.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1930	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1971	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1971	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	41.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1972	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1972	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1973	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1973	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1974	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1974	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	12.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/1975	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1975	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	12.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/197	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1976	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1977	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1977	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	13.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1978	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1978	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	13.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1979	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1979	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	14.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1980	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1980	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	14.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1981	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1981	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	15.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	63.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1982	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1982	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	15.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/1983	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1983	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	16.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/1984	Report Date.	24.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-1984	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	16.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/2025	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2025	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	18.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2026	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2026	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	18.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2027	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2027	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	19.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	62.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2028	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2028	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	19.03.2025	Test Completed on	31.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2029	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2029	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	20.03.2025	Test Completed on	31.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2030	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2030	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	20.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2031	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2031	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	21.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2032	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2032	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	21.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2033	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2033	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2034	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2034	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Report No.	SARL/25/2035	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2035	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2036	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2036	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2037	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2037	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2038	Report Date.	31.03.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2038	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2079	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2079	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	41.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2080	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2080	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2081	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2081	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2082	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2082	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/2083	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2083	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2084	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2084	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2085	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2085	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	27.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2086	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2086	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	27.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2087	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2087	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	28.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2088	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2088	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	28.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2089	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2089	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	29.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	71.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	34.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2090	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2090	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	29.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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Please Contact:
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TEST REPORT

Report No.	SARL/25/2091	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2091	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	30.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	67.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2092	Report Date.	07.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2092	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	30.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2133	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2133	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	01.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2134	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2134	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	01.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2135	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2135	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	02.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2136	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2136	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	02.04.2025	Test Completed on	14.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2137	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2137	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	03.04.2025	Test Completed on	14.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2138	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2138	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	03.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2139	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2139	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	04.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2140	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2140	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	04.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2141	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2141	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	42.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2142	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2142	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2143	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2143	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	42.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2144	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2144	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2145	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2145	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2146	Report Date.	14.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2146	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2187	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2187	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	41.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2188	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2188	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/2189	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2189	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2190	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2190	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2191	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2191	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2192	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2192	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2193	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2193	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	10.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2194	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2194	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	10.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2195	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2195	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	11.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2196	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2196	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	11.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2197	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2197	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	12.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2198	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2198	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	12.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2199	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2199	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	13.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2200	Report Date.	21.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2200	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	13.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2241	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2241	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	15.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	64.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2242	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2242	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	15.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2243	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2243	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	16.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	69.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	33.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2244	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2244	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	16.04.2025	Test Completed on	28.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2245	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2245	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	17.04.2025	Test Completed on	28.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2246	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2246	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	17.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2247	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2247	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	18.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2248	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2248	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	18.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2249	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2249	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2250	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2250	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2251	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2251	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	42.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2252	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2252	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2253	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2253	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2254	Report Date.	28.04.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2254	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2295	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2295	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2296	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2296	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2297	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2297	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2298	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2298	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2299	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2299	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2300	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2300	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2301	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2301	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	24.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2302	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2302	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	24.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2303	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2303	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	25.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2304	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2304	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	25.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Phone Number +91 82208 36377 Email: -**info@shrientanalytical.com**
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TEST REPORT

Report No.	SARL/25/2305	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2305	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	26.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2306	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2306	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	26.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2307	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2307	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	27.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2308	Report Date.	05.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2308	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	27.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2349	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2349	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	29.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	66.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2350	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2350	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	29.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2351	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2351	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	30.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	72.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	34.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2352	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2352	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	30.04.2025	Test Completed on	12.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2353	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2353	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	01.05.2025	Test Completed on	12.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2354	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2354	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	01.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2355	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2355	Sample Received on	05.05.2025
Sample Collected by	02.05.2025	Test Commenced on	05.05.2025
Sample Collected on	18.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2356	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2356	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	02.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2357	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2357	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2358	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2358	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2359	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2359	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2360	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2360	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2361	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2361	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2362	Report Date.	12.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2362	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2403	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2403	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	42.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2404	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2404	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2405	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2405	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2406	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2406	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2407	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2407	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2408	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2408	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2409	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2409	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	08.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2410	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2410	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	08.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2411	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2411	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	09.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2412	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2412	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	09.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Verified

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2413	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2413	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	10.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	68.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	32.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2414	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2414	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	10.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2415	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2415	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	11.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2416	Report Date.	19.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2416	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	11.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2457	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2457	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	13.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2458	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2458	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	13.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2459	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2459	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	14.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2460	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2460	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	14.05.2025	Test Completed on	26.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2461	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2461	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	15.05.2025	Test Completed on	26.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2462	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2462	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	15.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2463	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2463	Sample Received on	19.05.2025
Sample Collected by	02.05.2025	Test Commenced on	19.05.2025
Sample Collected on	16.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2464	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2464	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	16.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2465	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2465	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2466	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2466	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2467	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2467	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2468	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2468	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2469	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2469	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2470	Report Date.	26.05.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2470	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2543	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2543	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2544	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2544	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2545	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2545	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2546	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Alathur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2546	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2547	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Pudhukkurichi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2547	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2548	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Padalur Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2548	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2549	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2549	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	22.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2550	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2550	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	22.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2551	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Kolakkanatham Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2551	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	23.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Phone Number +91 82208 36377 Email: -**info@shrientanalytical.com**
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/2552	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Padalur West village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2552	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	23.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

Verified

END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2553	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2553	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	24.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	73.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	35.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2554	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2554	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	24.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2555	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2555	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	70.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	33.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2556	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Sridevi Mangalam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-2556	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/2557

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	GW 1 - Within Mine Lease area

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2557	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.89	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	514.5	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	310	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	169	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	42	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	15.4	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	105	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	64.0	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	152	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	70.2	1000

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TEST REPORT

Report No.	SARL/25/2557

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	49.8	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.05	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL(D.L-1.0)	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.11	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2558	Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	GW 2-Sridevi Mangalam

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2558	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.84	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1665	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1002	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	354	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	64.4	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	46.3	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	161	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	193	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	327	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	342	1000

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TEST REPORT

Report No.	SARL/25/2558

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	270	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.12	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	2.14	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.48	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2559

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	GW 3-Kolakkanatham

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2559	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.19	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1975	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1186	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	392	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	84	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	43.7	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	210	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	182	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	380	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	365	1000

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TEST REPORT

Report No.	SARL/25/2559

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	342	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.11	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	4.65	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.55	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2560

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	GW 4-Padalur West

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2560	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.91	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	2068	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1240	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	424	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	96.8	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	43.7	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	242	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	182	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	399	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	380	1000

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TEST REPORT

Report No.	SARL/25/2560

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	355	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.12	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	5.23	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.62	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2561

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	GW 5-Alathur

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2561	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.45	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1286.0	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	772	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	235	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	57.6	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	21.8	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	144	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	91.0	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	260	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	241	1000

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TEST REPORT

Report No.	SARL/25/2561

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	206	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.04	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	4.32	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.42	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/2562

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	GW 6-Pudhukkurichi

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2562	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.77	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1989.0	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1194	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	385	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	83.2	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	42.5	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	208	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	177	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	376	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	363	1000

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TEST REPORT

Report No.	SARL/25/2562

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	338	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL(D.L-0.01)	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	5.62	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.63	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2563

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	GW 7-Padalur

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2563	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.36	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	2137	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1282	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	454	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	102	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	47.5	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	256	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	198	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	392	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	510	1000

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TEST REPORT

Report No.	SARL/25/2563

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	212	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.03	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	5.51	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.58	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2564

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	SW 1-Nattaramangalam Eri

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2564	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.06.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result
A.	**Physical parameters**			
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.52
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	218.6
B.	**Chemical parameters**			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	132
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	47.2
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	10.56
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	4.99
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	26.4
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	20.8
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	45.6
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	42.8

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TEST REPORT

Report No.	SARL/25/2564

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	15.2
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.15
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL(D.L-1.0)
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.21
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL(D.L-0.05)
19	Chemical Oxygen Demand	APHA 24th Edition 5220 B: 2023	mg/L	BDL (D.L – 4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27°c	IS 3025 (Part 44): 1993	mg/L	BDL (D.L – 2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	22.0
22	Dissolved Oxygen	IS 3025 (Part 38): 1989	mg/L	5.8

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2565

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	SW 2-Nanthai River (up Stream)

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2565	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.06.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result
A.	**Physical parameters**			
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.94
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	167.9
B.	**Chemical parameters**			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	102
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	35.2
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	10.36
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	2.23
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	25.9
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	9.30
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	37.2
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	40.8

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TEST REPORT

Report No.	SARL/25/2565

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	16.9
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.12
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	2.14
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.45
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL(D.L-0.05)
19	Chemical Oxygen Demand	APHA 24th Edition 5220 B: 2023	mg/L	BDL (D.L – 4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27°c	IS 3025 (Part 44): 1993	mg/L	BDL (D.L – 2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	12.0
22	Dissolved Oxygen	IS 3025 (Part 38): 1989	mg/L	6.1

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2566

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	WATER
Sample Mark	SW 3 -Nanthai River (Down Stream)

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-2566	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.06.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result
A.	**Physical parameters**			
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.85
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	192.3
B.	**Chemical parameters**			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	115
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	42.5
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	9.8
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	4.3
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	24.5
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	18.0
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	42.2
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	39.8

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TEST REPORT

Report No.	SARL/25/2566

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	16.1
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.1
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	1.95
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.42
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL(D.L-0.05)
19	Chemical Oxygen Demand	APHA 24th Edition 5220 B: 2023	mg/L	BDL (D.L – 4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27°c	IS 3025 (Part 44): 1993	mg/L	BDL (D.L – 2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	10.0
22	Dissolved Oxygen	IS 3025 (Part 38): 1989	mg/L	6.3

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2557

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	SOIL
Sample Mark	S1-Within Mine Lease area

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-2557	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.24
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	172.5
3	Dry matter content	IS 15106: 2002	%	94.58
4	Water Content	IS 15106: 2002	%	5.42
5	Organic Matter	IS 2720: Part 22: 1972	%	0.86
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	285
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay loam
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	16.05
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.22
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	38.73
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.42
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	310
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	590
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	19.2
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	40

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2558

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	SOIL
Sample Mark	S2-Sridevi Mangalam Village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-2558	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.94
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	290.8
3	Dry matter content	IS 15106: 2002	%	96.52
4	Water Content	IS 15106: 2002	%	3.48
5	Organic Matter	IS 2720: Part 22: 1972	%	0.95
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	405
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	10.42
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	44.33
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.25
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.62
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	322
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	664
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	19.4
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	38

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2559

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	SOIL
Sample Mark	S3-Kolakkanatham Village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-2559	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	8.06
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	220.4
3	Dry matter content	IS 15106: 2002	%	97.21
4	Water Content	IS 15106: 2002	%	2.79
5	Organic Matter	IS 2720: Part 22: 1972	%	0.82
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	146
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	8.55
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	42.75
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	48.7
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.24
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	346
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	735
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	17.9
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	40

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2560

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	SOIL
Sample Mark	S4-Padalur West village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-2560	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.95
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	273.5
3	Dry matter content	IS 15106: 2002	%	86.54
4	Water Content	IS 15106: 2002	%	13.46
5	Organic Matter	IS 2720: Part 22: 1972	%	1.32
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	205
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Clay
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	17.05
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	38.97
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	43.98
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.67
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	498
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	904
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	17.1
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	47

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2561

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	SOIL
Sample Mark	S5-Alathur Village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-2561	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.89
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	190.2
3	Dry matter content	IS 15106: 2002	%	97.25
4	Water Content	IS 15106: 2002	%	2.75
5	Organic Matter	IS 2720: Part 22: 1972	%	0.77
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	254
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	13.22
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	42.76
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	44.02
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.36
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	535
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	1030
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	18.9
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	42

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2562

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	SOIL
Sample Mark	S6-Pudhukkurichi Village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-2562	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	8.12
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	295.6
3	Dry matter content	IS 15106: 2002	%	93.67
4	Water Content	IS 15106: 2002	%	6.33
5	Organic Matter	IS 2720: Part 22: 1972	%	0.95
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	312
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	10.79
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.66
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	43.55
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.61
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	420
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	634
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	18.2
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	40

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/2563

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	SOIL
Sample Mark	S7-Padalur Village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-2563	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.92
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	265.7
3	Dry matter content	IS 15106: 2002	%	92.58
4	Water Content	IS 15106: 2002	%	7.42
5	Organic Matter	IS 2720: Part 22: 1972	%	1.03
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	175
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	7.89
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	41.32
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	50.79
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.74
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	396
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	652
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	17.3
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	42

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

*****END OF THE REPORT*****

Please Contact:
For any Technical Issues & Complaints: technical@shrientanalytical.com

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TEST REPORT

Report No.	SARL/25/2564

Report Date.	02.06.2025

Customer Name & Address	Rough Stone Quarry for Thiru.L.Hariharan at S.F.No. 10/1 (Block-2) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.
Sample Description	NOISE LEVEL DATA

Customer Reference	As per work order	Sampling Method	SARL/IOP/023
Sample Reference No	SARL/NO/CHE-2564	Date of Monitoring	24.03.2025/ 25.03.2025
Sample Collected by	LABORATORY		

Time in hrs	N1	N2	N3	N4	N5	N6	N7
06.00	42.4	38.5	41.4	42.3	39.9	49.0	49.1
07.00	43.9	39.9	39.1	44.9	42.4	51.3	52.7
08.00	45.7	43.0	42.4	43.3	43.0	49.8	53.5
09.00	49.1	45.0	43.8	46.9	46.8	49.6	52.1
10.00	51.0	47.4	50.8	49.0	44.6	48.6	52.6
11.00	52.7	49.3	49.9	51.8	44.0	47.8	50.8
12.00	53.6	53.7	46.6	53.0	42.8	45.6	47.3
13.00	55.4	55.1	47.5	49.3	47.3	47.9	46.7
14.00	56.7	52.8	53.1	46.9	44.5	53.5	49.6
15.00	54.1	54.0	52.9	44.8	47.9	47.3	52.8
16.00	59.6	50.9	51.5	48.9	45.8	49.3	53.7
17.00	57.7	50.1	52.9	47.9	44.8	48.6	53.5
18.00	52.5	50.9	49.6	46.0	48.0	50.0	48.9
19.00	51.3	44.8	46.0	46.6	47.1	51.7	43.6
20.00	50.5	40.9	45.4	44.0	40.0	46.3	41.2
21.00	47.4	39.9	43.5	42.3	38.9	46.7	37.5
22.00	44.5	39.3	45.0	42.9	37.8	50.7	39.2
23.00	41.0	39.0	43.1	41.3	36.1	39.7	39.8
24.00	39.9	38.6	40.9	40.4	37.6	39.8	38.8
01.00	39.1	37.6	42.4	41.8	36.3	38.1	39.1
02.00	40.3	37.3	41.4	41.0	35.1	38.7	38.3
03.00	38.2	37.8	40.4	41.1	37.5	37.4	39.6
04.00	41.1	37.5	39.6	39.7	38.3	38.6	39.9
05.00	42.3	38.9	39.0	39.3	39.7	38.1	38.6

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TEST REPORT

Report No.	SARL/25/2564

Report Date.	02.06.2025

	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	**53.7**	**50.0**	**49.1**	**47.9**	**45.1**	**49.4**	**50.8**
NIGHT EQUIVALENT	**41.2**	**38.3**	**41.9**	**41.1**	**37.5**	**43.3**	**39.2**
DAY & NIGHT EQUIVALENT	**52.1**	**48.4**	**47.8**	**46.5**	**43.7**	**48.2**	**49.2**

Remarks:

LOCATIONS:

N1-Within Mine Lease area
N2-Sridevi Mangalam Village
N3-Kolakkanatham Village
N4-Padalur West village
N5-Alathur Village
N6-Pudhukkurichi Village
N7-Padalur Village

For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

*****END OF THE REPORT*****

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ANNEXURE-8

National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE LIMITED

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

416/15, DHARGAS ROAD, PERUNGALATHUR, WEST TAMBARAM, CHENNAI, KANCHIPURAM, TAMIL NADU, INDIA

in the field of

TESTING

Certificate Number: TC-12339

Issue Date: 30/09/2025 **Valid Until:** 29/09/2029

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of thislaboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: SHRIENT ANALYTICAL AND RESEARCH LABS PRIVATE LIMITED

Signed for and on behalf of NABL

Anuja Anand
Director

Chakravarthy T. Kannan
Chief Executive Officer

ANNEXURE-9

அனுப்புநர்:

திருமதி.பா.மாலதி M.A.,M.Phil.,M.Ed.,

தலைமை ஆசிரியர்,

அரசு மாதிரி மேல்நிலைப்பள்ளி,

பாடாலூர்.

பெறுநர்:

திரு.எல்.ஹரிஹரன்.

10/1,பிளாக் 2,

பாடாலூர் கிழக்கு,

ஆலத்தூர்.

ந.க.எண் :40/2025 நாள்: 17.06.2025.

ஐயா,

பொருள்: பெரம்பலூர் மாவட்டம் - பாடாலூர் அரசு மாதிரி மேல்நிலைப்பள்ளி - பள்ளியில் பயிலும் மாணவ / மாணவியர்களுக்கு உணவருந்தும் கூடம் அமைத்து தரக் கோருதல் - சார்பு.

வணக்கம், இப்பள்ளியில் சுமார் 850 மாணவ/ மாணவியர்கள் பயின்று வருகின்றனர் . மாணவ/ மாணவியர்கள் நலன் கருதி அனைவரும் அமர்ந்து உணவருந்தும் வகையில் உணவருந்தும் கூடம் அமைத்து தருமாறு அன்புடன் கேட்டுக்கொள்ளப்படுகிறது.

17/6/25

தலைமை ஆசிரியர்

தலைமை ஆசிரியர்,
அரசு மாதிரி மேல்நிலைப்பள்ளி
பாடாலூர் - 621109.
பெரம்பலூர் மாவட்டம்.