

DRAFT EIA & EMP FOR ROUGH STONE QUARRY

CATEGORY – B1

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

ToR Identification No. TO25B0108TN5925656N (F.No. 12507), dated 30/09/2025

PROPOSED QUARRY LEASE DETAILS	
SURVEY NO	328/2 (BLOCK-36)
VILLAGE	KALPADI (NORTH)
TALUK	PERAMBALUR
DISTRICT	PERAMBALUR
EXTENT	1.00.0 Ha
CLUSTER EXTENT	13.60.0 Ha
PROPOSED PRODUCTION OF ROUGH STONE FOR 5 YEARS	ROUGH STONE : 1,46,666 in m ³ PEAK PRODUCTION – 29,440 m ³
LAND	GOVERNMENT PORAMBOKE LAND

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

Category of the Project: B1 Cluster Mining, Total Cluster Area – 13.60.0 Ha

Baseline Monitoring Period – March 2025 to May 2025

APPLICANT

M/s. RRM TRANSPORT

1/303, ARIYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR -621220.

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 up to: 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 up to: 29.09.2025 #416/15, Dhargas Road, Perungalathur, West Tambaram, Chennai, Tamil Nadu, India.



FEBRUARY- 2026



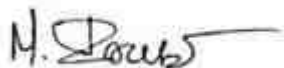
AMENDMENT PAGE

SL	Page No.	Section / Clause / Para / Line (as Applicable)	Date of Amendment	Amendment Made	Reasons of amendment	Signature of Person Authorizing Amendment
1						
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ACKNOWLEDGEMENT

M/s. Global Mining Solutions, Salem is very much thankful to M/s.RRM Transport, 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 1.00.0 Ha., & Cluster extent of 13.60.00 Ha., located at Kalpadi (North) Village, Perambalur 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 Kalpadi (North) 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 Rough Stone quarry over a lease extent of 1.00.0 Ha & Cluster extent of 13.60.00 Ha., located at Kalpadi (North) Village, Perambalur 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) dated 4th Aug 2009 and its Amendments, we hereby confirm that all Terms of Reference issued by Ministry of Environment, Forest and Climate Change vide ToR Identification No. TO25B0108TN5925656N (F.No. 12507), dated 30/09/2025 of Draft EIA/EMP report for the Rough Stone Quarry over a lease extent of 1.00.0 Ha., & Cluster extent of 13.60.00 Ha., located at Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu Stat for the proposed production for five years is 4,03,331.50 Ts (1,46,666 m³) of Rough Stone formation from the proposed lease area and the details has been complied in the Draft 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 only) vide certificate No. NABET/EIA/23-26/SA 0241, valid till 03.02.2026.

For: M/s. Global Mining Solutions

M. MANIKANDAN

EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM



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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.

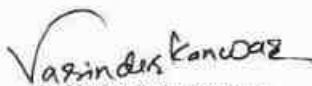
The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/25/3638 dated May 30, 2025. The accreditation needs to be renewed before the expiry date Eco Chem Sales and Services, Surat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

Valid up to
January 4, 2026



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

Issue Date
May 30, 2025


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.

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Global Mining Solutions, Salem

Plot No. 6, S.F.No. 13/2, A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455

Global Mining Solutions, Salem is Re-Accredited (RA1) as **Category-A organization** under the QCI-NABET Scheme for Accreditation of EIA Consultant Organizations (Version 3), for the preparation of EIA/EMP reports in the sectors listed below, as per the specified categories

S.No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1.	Mining of minerals including opencast / underground mining	1	1 (a) (i)	A
2.	Thermal power plants	4	1 (d)	B
3.	Metallurgical industries (ferrous only)	8	3 (a)	A
4.	Metallurgical industries (non-ferrous only)	8		B
5.	Cement plants	9	3 (b)	A
6.	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	21	5 (f)	A
7.	Distilleries	22	5 (g)	A
8.	Industrial estates/ parks/ complexes/areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes	31	7 (c)	B
9.	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	32	7 (d)	B
10.	Common Effluent Treatment Plants (CETPs)	36	7 (h)	B
11.	Common Municipal Solid Waste Management Facility (CMSWMF)	37	7 (i)	B
12.	Building and construction projects	38	8 (a)	B
13.	Townships and Area development projects	39	8 (b)	B

Note: Names of approved experts and sectors are mentioned in RAAC minutes dated February 05, 2026, 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/26/4024 dated February 16, 2026. The accreditation needs to be renewed before the expiry date by Global Mining Solutions, Salem following due process of assessment.

Valid up to
January 03, 2029

Issue Date
February 16, 2026



Certificate No.
NABET/EIA/26-29/RA 0478


Prof (Dr) Varinder S Kanwar
(CEO – NABET)

DECLARATION BY EXPERTS

Declaration by Experts contributing to the Rough Stone Quarry over a lease extent of 1.00.0 Ha. & Cluster extent of 13.60.00 Ha in Kalpadi (North) Village, Perambalur 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

M. MANIKANDAN

EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

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. <u>Period: March 2025 to May 2025.</u>	R. Dhanal
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. <u>Period: March 2025 to May 2025</u>	K. Abirami
3	SHW	Ramados N	Assessment of waste generated from the project, suggested waste management practices. <u>Period: March 2025 to May 2025</u>	C. Ramados
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. <u>Period: March 2025 to May 2025</u>	K. Sarasvathy
5	EB	Saravanan S	Baseline data collection of related to ecology of the area. <u>Period: March 2025 to May 2025</u>	S. Saravanan
6	HG	Ravinthiran N	Hydrogeological feature of the area. Ground water depth and impact of project on ground water of the area. <u>Period: March 2025 to May 2025</u>	N. Ravinthiran

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>	T. Srilatha
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>	R. Dhanu
9	LU	Dhanalakshmi Ramanathan	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>	R. Dhanu
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 2025 to May 2025</u>	S. Prashant
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>	Shisupal Sing
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>	V. Meyyappan

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COMPLIANCE TO

TERMS OF REFERENCE

S.No	ToR Points	Reply	Pg. No
1. SEIAA Specific Conditions			
1.1	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 1,46,666 m³ of Rough Stone up to a depth of 66m (41m AGL and 25m BGL) as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-I & normal conditions & the standard conditions.	Agreed	-

S.No	ToR Points	Reply	Pg. No
2. SEAC Conditions - Site Specific			
2.1	Major Condition: 1. The PP shall provide safe distance of 15m from high wall and form benches thereafter and submit the revised the Mining Plan accordingly along with EIA Report. 2. The PP shall provide safety mesh net on the high wall side in order to safeguard from landslide. 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	Agreed. A minimum safety distance of 15 m from the high wall shall be maintained, and systematic benching will be implemented. The revised Mining Plan, incorporating these provisions, is under preparation and will be submitted along with the Final EIA Report. In addition, the Project Proponent has agreed to install safety mesh netting along the high wall to prevent landslides or falling debris. Necessary arrangements for the same will be ensured during the operational phase of the project.	-

	cluster through systematic & scientific approach with appointment of required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal: (i) Copy of the agreement forming CMC. (ii) The Organisation chart of the Committee with defining the role of the members (iii) The 'Standard Operating Procedures' (SoP) executing the planned activities	There are 12 quarries 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. 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 ensure the installation of CCTV at the proposed quarry site and ensure its inclusion during the EIA presentation.	Agreed, The PP will install CCTV at the proposed mine lease area and submit proof in the Final EIA/EMP report.									
3. SEAC Standard Condition											
3.1 Terms of Reference											
1	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	The applied area was previously operated by another lessee, namely Thiru M.T.M. Dhandapani, prior to the year 2016. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below. <table border="1"> <thead> <tr> <th>Pit No</th><th>Length in (m)</th><th>Width in (m)</th><th>Depth in (m)</th></tr> </thead> <tbody> <tr> <td>Pit I</td><td>123</td><td>75</td><td>41 m AGL</td></tr> </tbody> </table>	Pit No	Length in (m)	Width in (m)	Depth in (m)	Pit I	123	75	41 m AGL	-
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Pit I	123	75	41 m AGL								

	(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.		
2	Details of habitations around the proposed mining area and latest VAO Certificate regarding the location of habitations within 300m radius from the periphery of the site.	The nearest habitation is Kalpadi located at a distance of 485m (NE) and VAO NOC regarding the location of habitations within 300m radius is enclosed as Annexure – 5.	
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.	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 and figure 3.2 of Chapter 3. As per the field study, only two crusher plant were observed within the 300m radius of the project site. Hence there are no habitation within 300m radius of the project site	96
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.	117

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.	R.F in buffer zone: Chittali R.F – 3.00 km (NE), Kunnam R.F – 5.50 km (SE). There is no National Parks, Sanctuary, Corridors and Wildlife pathways in the core and buffer zone. The nearest sanctuary is Karaivetti bird sanctuary -28.70 km (SE)	-
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 existing pit depth as per approved mining plan is 41 m AGL. Slope stability study will be conducted before commencement of the project.	-
8	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.		
9	The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent	Agreed. It will be incorporated in the final EIA & EMP.	-

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	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 2.7 of Chapter 2.	74								
11	The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.	The PP has not carried out any quarrying operation before this project.	-								
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?	The applied area was previously operated by another lessee, namely Thiru M.T.M. Dhandapani, prior to the year 2016. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below.	-								
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	<table border="1"> <thead> <tr> <th>Pit No</th><th>Length in (m)</th><th>Width in (m)</th><th>Depth in (m)</th></tr> </thead> <tbody> <tr> <td>Pit I</td><td>123</td><td>75</td><td>41 m AGL</td></tr> </tbody> </table>	Pit No	Length in (m)	Width in (m)	Depth in (m)	Pit I	123	75	41 m AGL	-
Pit No	Length in (m)	Width in (m)	Depth in (m)								
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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	Complied. Project coordinates superimposed in satellite imagery are given as Figure - 2.2, Chapter - 2.	58, 93								

	Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	- The 10km Radius Index plan showing buffer zone is given as Figure - 3.1, Chapter - 3. - The geology and geomorphology map are provided in Figure - 3.23 & 3.24, Chapter - 3. - The Soil map is provided as Figure - 3.25, Chapter - 3.	135,136 137
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 major trees within ML area. Fencing and plantations are under process. Greenbelt / Plantation will be carried out in the safety zone to enhance the vegetative growth and aesthetic in the safety zone area. In the post mining stage, an area of 0.05.5 Ha will be under greenbelt and plantation. Refer section 4.2.4, chapter-4. 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 are no water bodies within 500 m radius of the project site.	146
18	The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding, environment and the remedial measures for the same.	The geological reserves are estimated to be 3,38,466 m³ Rough stone The mineable reserves of 1,46,666 m³ Rough stone observed. 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 Figure 10.1	193
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 study is under progress. It will be incorporated in the final EIA & EMP.	-
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 of Chapter 2.	91 – 138 56
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	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.	- 189

	concerned quarry and the surrounding habitations in the mind.		
23	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	- The runoff water during rainy season will be collected in the bottom quarry through proper drainage pattern and the collected water will be used for plantation and dust suppression during dry season. - Rain water harvesting Plan is given in section 4.2.4 of chapter 4. - The water balance is given in Figure 4.1 of chapter 4.	148
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.	Land use pattern of the study area is detailed in Section 3.3.7, Chapter - 3. The anticipated impact on land and its mitigative measure are detailed in Section 4.2, Chapter - 4.	124, 141
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 furnished to the effect that the proposed mining activities could be considered.	No proximity to Critically polluted areas.	-
27	Description of water conservation measures proposed to be adopted	The impact of the mining operations due to this quarry on	141

	in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	water environment is studied and mitigation measures are proposed in Section 4.2, Chapter - 4. • Rain water will be diverted into bottom of the project area by constructing drains to store and use for dust suppression and greenbelt development. Rain water harvesting Plan is given in section 4.2.4 of chapter 4.	149
28	Impact on local transport infrastructure due to the Project should be indicated	Since the production is very less, only few trucks of 5/10T will be used for transport. The effect of transport on local transport will be negligible. The cumulative traffic study is given in section 2.10 of Chapter 2.	56
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 of flora in the core zone and the buffer zone are provided in section 3.3.6 Chapter - 3 There is no standing trees in proposed mine lease area.	117
30	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific	Complied. Mine Closure Plan has been incorporated in the approved Mining Plan and the same is incorporated in the section 2.7.3 Chapter - 2. Land use at mine closure stage are given in Table - 2.14 and Figure - 2.13 of Chapter 2.	82 83,84
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 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	• Greenbelt/Plantation will be carried out in and around the lease area to enhance the vegetative growth and aesthetic in the area. • In the post mining stage, an area of 0.05.5 Ha of safety zone will be developed with green belt.	-

	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.		
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 section 7.3.4, Chapter 7.	184
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 section 7.2, Chapter 7.	177
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 section 4.5.4 of Chapter-4.	165
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.	No major impact on public health will be there since the villages are located more than 500m from the lease area. Details of CER and CSR are discussed under Chapter- 8.	186

38	The Socio-economic studies should be carried out within a 5km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	Socio economic study is conducted both by visits and secondary data collection. Details are given in section 3.3.8, Chapter 3.	129								
39	Details of litigation pending against the project, if any, with direction /order passed by any Court of law against the Project should be given.	No litigation is pending	-								
40	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.	Benefits of the project is given in Chapter- 8.	186								
41	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.	The applied area was previously operated by another lessee, namely Thiru M.T.M. Dhandapani, prior to the year 2016. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below. <table border="1"> <thead> <tr> <th>Pit No</th><th>Length in (m)</th><th>Width in (m)</th><th>Depth in (m)</th></tr> </thead> <tbody> <tr> <td>Pit I</td><td>123</td><td>75</td><td>41 m AGL</td></tr> </tbody> </table>	Pit No	Length in (m)	Width in (m)	Depth in (m)	Pit I	123	75	41 m AGL	-
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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.	A detailed Environmental Management Plan considering entire life has been prepared and are detailed in section 10.1.6 chapter- 10. The sworn affidavit stating to abide the EMP for the entire life of mine will be submitted in 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	Agreed	-								

	attracting penal provisions in the Environment (Protection) Act, 1986		
4	SEIAA Specific Conditions		
	4.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 6 existing and 6 proposed and 1 expired quarry located within 500-metre radius. The proponent will take the initiative to form a cluster management committee once environmental clearance is obtained for this 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 & emergency management plan, fire safety & evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.	Risk management 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	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	-

	implementing the environmental policy devised shall be given in detail.	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.		
Agriculture & Agro-Biodiversity			
9	Impact on surrounding agricultural fields around the proposed mining Area.	There are no forest area and traditional practices within the project area. However, there are some agricultural lands 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 separation 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 0.5km radius. So, there is no impact for the Agriculture, Forestry, soil located within 10km radius.	-
10	Impact on soil flora & vegetation around the project site.		
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 in proposed 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.	Complied. The details are given in section 3.3.6, Chapter- 3 and section 4.2, Chapter 4.	117, 141
13	Action should specifically suggest for sustainable management of the	The detailed action plan has been described in the EMP (Chapter-10) for the sustainable	189

	area and restoration of ecosystem for flow of goods and services.	management for the project area and its surroundings.	
14	The project proponent shall study and furnish the impact of project on plantations in adjoining Government poramboke lands, Horticulture, Agriculture and livestock.	Complied. The details are given in, Chapter- 2.	56
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. Chittali R.F – 3.00 km (NE), Kunnam R.F – 5.50 km (SE). There are no reserve Forest area within 1 km radius. The anticipated impact on ecological environment is given in section 4.2.4 of Chapter 4.	92
16	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	The anticipated impact on ecological environment is given in section 4.2.4 of Chapter 4.	151
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 within 10 km radius of the project site. The nearest Sanctuary is Karaivetti bird sanctuary -28.70 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 assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether	The hydrogeological study from a reputed institute is in progress and it will incorporated in the Final EIA report.	-

	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) has been envisaged in this quarry. However, there may be erosion due to rainy season and that is limited within quarry area. The control measures are explained in section 4.2 to 4.5 of Chapter- 4.	141 - 170
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 baseline study details are incorporated in section 3.3, Chapter- 3. Anticipated impacts and its mitigation measures are detailed in section 4.5, Chapter- 4.	94 - 140 166
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.	141 - 165
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 (refer Section 4.2, Chapter- 4).	117 141
25	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	The impact of mining on soil environment has been discussed in section 4.2.2 under Chapter- 4.	147
26	The Environmental Impact Assessment should study on	The anticipated impact and its mitigation measures for Water	166

	wetlands, water bodies, rivers streams, lakes and farmer sites.	Environment are detailed in section 4.5 of Chapter- 4.	
27	The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including environmental stress. c) Sediment geochemistry in the surface streams.	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. There are no water bodies within 500 m radius of the project site.	-
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.	166
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.	- 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 has been planned. Refer Section 4.2.4, Chapter- 4.	151
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.	Complied. Mine Closure Plan has been prepared incorporated in the approved Mining Plan/precise area communication order and the same is incorporated in the Chapter-2	84
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.	Complied. The details are described in Chapter- 10.	189
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.	- Green belt development plan is being planned to develop inside the safety zone area of 0.05 Ha with 55 Nos of saplings. - For this capital cost of INR 0.06 Lakhs and recurring cost of INR 0.01 Lakhs for 5 years has been earmarked. - The breakup of the total EMP cost is detailed in Table 10.2 of Chapter 10.	196-198
Risk Assessment			
35	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	Complied. The details are described in Chapter- 7.	166
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.	Complied. The details are described in Chapter- 7.	184
Others			
37	The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved	There are no historical places, schools, cemeteries, <u>HT and LT lines</u> , bird sanctuaries, and wildlife	Annexure No-5

	habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.	sanctuaries within 300 meters of the proposed project area. In this regard, the project proponent has received an official letter from the Village Administrative Officer, Kalpadi (North) village, The letter copy enclosed as Annexure – 5.	
38	As per the MoEF& CC office memorandum F.NO.22-65/2017-1A.11I 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.	Noted. It will be complied in the Final EIA/EMP 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 area 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.	-

Standard Terms of Reference for (Mining of minerals)

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.	The applied area was previously operated by another lessee, namely Thiru M.T.M. Dhandapani, prior to the year 2016. CCR is not applicable. The existing pit dimensions mentioned in the approved mining plan is given below. <table border="1"> <thead> <tr> <th>Pit No</th><th>Length in (m)</th><th>Width in (m)</th><th>Depth in (m)</th></tr> </thead> <tbody> <tr> <td>Pit I</td><td>123</td><td>75</td><td>41 m AGL</td></tr> </tbody> </table>	Pit No	Length in (m)	Width in (m)	Depth in (m)	Pit I	123	75	41 m AGL	
Pit No	Length in (m)	Width in (m)	Depth in (m)								
Pit I	123	75	41 m AGL								

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.	It is Government land the applicant has obtained tender from the Government	
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.	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.	
1.4	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).	Complied. - Project coordinates superimposed in satellite imagery are given as Figure - 2.2, Chapter - 2. - The 10km Radius Index plan showing buffer zone is given as Figure - 3.1, Chapter - 3. - The geology and geomorphology map are provided in Figure - 3.26 & 3.27, Chapter - 3. The Soil map is provided as Figure - 3.28, Chapter - 3.	58, 93 135,136 137
1.5	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.	The following map in 1:50,000 Scale: Geology map of the project area covering 10km radius – Figure No. 3.26. Geomorphology Map of the Study Area covering 10 km radius – Figure No. 3.27. Drainage map – 3.25	137
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.	The applied area is inspected by the VAO, Revenue Inspector of Mines, Assistant Director and confirmed the land is suitable for Rough stone quarrying operation with the land use policy of the state. Precise area communication letter and Mine plan approval letter is enclosed in Annexure 2 & 3.	

[illegible]

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	There is no proposal for use of land outside the mine lease area for OB dumps, etc. There are no R&R issues involved in the project.	
1.12	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.	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.	
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 since no forest land involved within mine lease area.	
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 since no forest land involved in mine lease area.	
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.	There is no reserve Forest area within 1 km radius.	92
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.	93
1.17	Location of National Parks, Sanctuaries, Biosphere Reserves,	Not Applicable. There are No National Parks, Biosphere	92

	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.	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.	117
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 Department 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 with respect to CRZ, coastal features such as mangroves, if any,	Not Applicable	

	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.	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. 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	Baseline environmental monitoring was conducted in the core zone and buffer zone during Summer march 2025 to may 2025 . Site specific meteorological data was also collected during the study period. The monitoring location details and the monitoring results are discussed in Chapter 3 .	94 – 140

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 4.3.5	152
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 Balance diagram is presented in Figure No – 4.1.	149
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 4.2.4 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	149

		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.							
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 of the project on the surface and ground water environment and necessary control measures are discussed in Chapter 4	148						
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 Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 66m (41m AGL and 25m BGL) and water table is found at a depth of 70 m BGL.							
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.	There is no seasonal stream or nallah flowing through the mining area. Also there are no water bodies within 500 m radius.							
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.	<table><tr><td>Site Elevation above MSL</td><td>150 m from MSL</td></tr><tr><td>Ultimate Depth</td><td>66m (41m AGL and 25m BGL)</td></tr><tr><td>Ground water</td><td>70 m BGL.</td></tr></table>	Site Elevation above MSL	150 m from MSL	Ultimate Depth	66m (41m AGL and 25m BGL)	Ground water	70 m BGL.	
Site Elevation above MSL	150 m from MSL								
Ultimate Depth	66m (41m AGL and 25m BGL)								
Ground water	70 m BGL.								
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	There are no trees within ML area. Fencing and plantations are under process. Greenbelt / Plantation will be carried out in the safety zone to enhance the vegetative growth and aesthetic in the safety zone area. In the post mining stage, an area of							

	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.	0.05.5 Ha will be under greenbelt and plantation.	
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 of Chapter 2.	56-90
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 Chapter 2.	
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 2.7.3 of Chapter 2.	82
1.35	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement	Details of anticipated occupational health impacts and proposed preventive	195

	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.	measures are discussed in Chapter 10	
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.	Details of CER and CSR are discussed under Chapter No. 8	186
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 for the project is discussed in detail in Chapter 9 .	190
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	The public hearing comments will be submitted during final EIA 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. 284.47 Lakhs (including EMP & CER cost) CER Cost is Rs.3.00 lakhs Total EMP Cost for 5 years is 17.97 lakhs i.e., Rs.8.52 Lakhs of Capital + Recurring cost Rs. 9.45 lakhs for five years.	

1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report.	Disaster Management Plan is included in Chapter 7	184
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.	The Project benefits are clearly spelt out in Chapter 8.	186
1.44	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. J11013/41/2006-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	Yes, Complied.	

	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.		

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE REPORT

Environmental Impact Assessment (EIA) as a tool used to identify the environmental, social and economic impacts of a project prior to decision-making. It aims to predict environmental impacts at an early stage in project planning and design, find ways and means to reduce adverse impacts, shape projects to suit the local environment and present the predictions and options to decision-makers.

M/s RRM Transport (Lessee), has obtained Precise Area communication letter from the Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No. 104/G&M/2025, Dated 02.05.2025 and Mining plan has been approved by the Assistant Director, Department of Geology and Mining, Perambalur, vide Rc.No. 104 / G&M / 2025 dated 06.06.2025 to quarry out Mineable reserves of 4,03,331.50 Ts (1,46,666 m³) of Rough Stone up to depth of 66m (41m above ground level and 25m below ground level). The project is situated on Government land at S.F. No. 328/2 (Block-36), covering an area of 1.00.0 ha, in Kalpadi (North), Perambalur Taluk, Perambalur District, Tamil Nadu.

The applied area was previously operated by another lessee, namely Thiru M.T.M. Dhandapani, prior to the year 2016. 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	123	75	41 m AGL

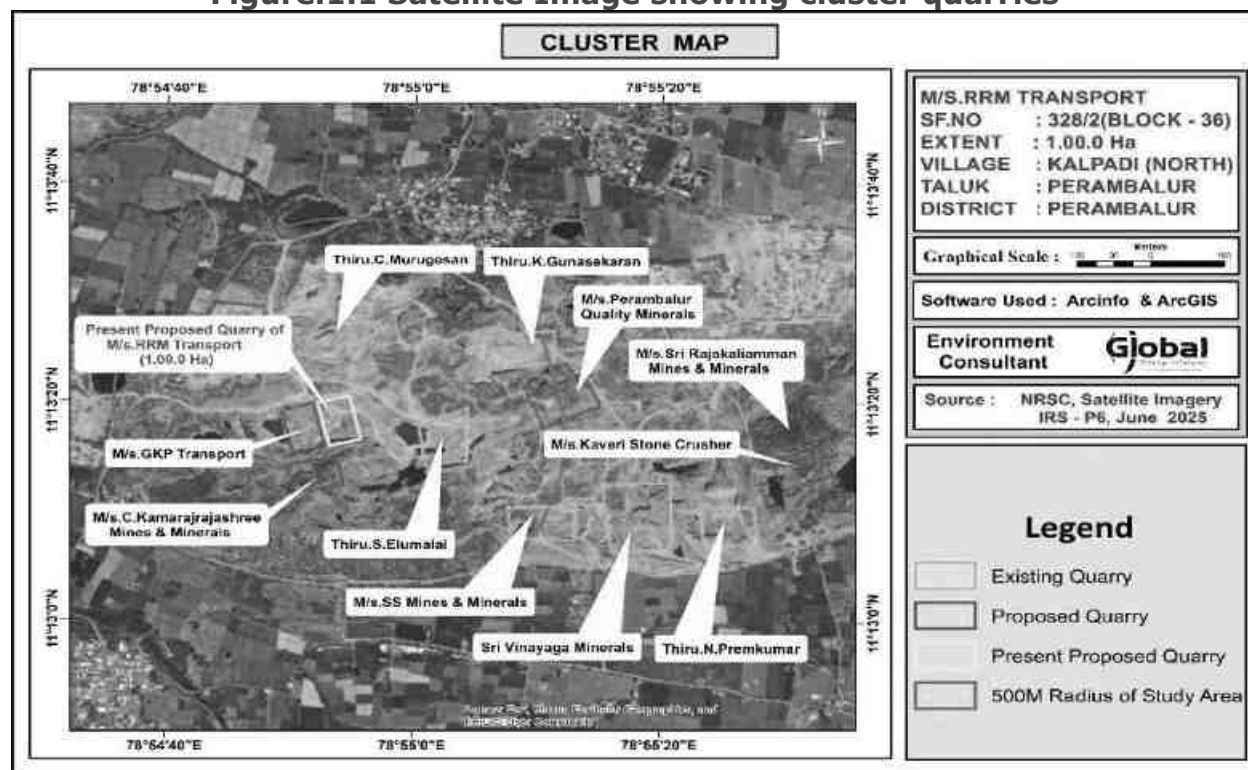
Hence, this proposed quarry falls under the cluster situation due to the following proposed and abandoned quarries located within 500m radius. The details are given below.

Table 1.1 Cluster Mines Details				
S.No	Name of the Quarry Owner	S.F. Nos	Lease Period	Area
a. Existing Quarry				
1.	Thiru.N.Premkumar S/o Narayanasamy, No 144/2 East street, Venkatramanapuram Ariyalur-621705	328/2 (Block 28) Kalpadi north Village Perambalur Taluk	30.06.2021 to 29.06.2026	1.00.0 Ha
2.	Thiru.C.Murugesan S/o Thiru.Chinnappan Kaliyamman nagar, Kavulpalayam Perambalur	328/2 (Block 24) Kalpadi north Village Perambalur Taluk	30.12.2021 to 29.12.2026	1.00.0 Ha
3	Sri.Vinayaka Minerals No.9 5 th street,Nandanam extension, Chennai 600035	328/2 (Block 8) Kalpadi north Village Perambalur Taluk	04.01.2022 to 03.01.2027	2.00.0 Ha
4	M/s. SS Mines and Minerals No.1/189-A, 5 th street, Vasan city, Somarasampettai, Srirangam taluk, Trichy district-620102	328/2 (Block 17) Kalpadi north Village Perambalur Taluk	05.07.2022 to 04.07.2027	1.00.0 Ha
5.	Thiru.K.Ganeskaran S/o krishnasamy No.97 Venkadajalapathi nagar, new stand perambalur dist	328/2 (Block 4) Kalpadi north Village Perambalur Taluk	05.07.2022 to 04.07.2027	1.00.0 Ha
6	Thiru.S.Elumalai s/o Sengodan Naranamanagalam, Alathur taluk Perambalur 621109	328/2 (Block 6) Kalpadi north Village Perambalur Taluk	22.08.2022 to 21.08.2027	1.00.0 Ha
b. Proposed Quarry				
1.	M/s RRM Transport 1/303, Ariyalur Main road, Kavulpalayam, Perambalur-621220	328/2 (Block 36) Kalpadi north Village	-	1.00.0 Ha
2.	M/s.Kavery stone crusher 110/1B, Mauruvathur main road, Perali village Kunnam taluk, Perambalur -621708	328/2 (Block 31) Kalpadi north Village	-	1.10.0 Ha
3	M/s. Perambalur quality minerals 238/1A3, Arumalai road, Sengunam, Perambalur 621220	328/2 (Block 35) Kalpadi north Village	-	1.50.0 Ha

4.	M/s. GKP Transports 174C, 1 st Main road, New colony, Thuraimangalam, Perambalur - 621220	328/2 (Block 37) Kalpadi north Village	-	1.00.0 Ha
5.	M/s.Sri Rajakaliamman mines and Minerals 2/151, Kaliyamman nagar, kavulpalayam, Thuraimangalam, Perambalur- 621220	328/2 (Block 34) Kalpadi north Village	-	1.00.0 Ha
6	M/s. C.Kamarajrajashree mines and Minerals 262/1, Trichy main road, Thavuthaikulam,Ariyalur -621705	328/2 (Block 38) Kalpadi north Village	-	1.00.0 Ha
C. Expired quarries				
1	Thiru.D.Madhubalan s/o Duraisamy No.2/29 Mariyamman Kovil street, kai kalathur post, Veppanthattai taluk,Perambalur district- 621117	328/2 (Block 3) Kalpadi north Village	28.11.20218 to 27.11.2023	1.00.0 Ha
d.Abandoned quarries				
Nil				
Total Area Under Cluster			13.60.00 Ha	

As per EIA notification, 2006 and its subsequent amendments the Thiru. M/s RRM Transport Rough Stone Quarry, cluster is falls under Schedule 1(a) Mining of Minerals. It is further classified under Category B1 due to the overall extent of cluster area is 13.60.00 Ha which is >5 Ha. Satellite image of Quarries in Cluster is shown in Fig 1.1.

Figure.1.1 Satellite Image showing cluster quarries



The ToR for preparation of EIA/EMP was approved vide ToR Identification No. TO25B0108TN5925656N (F.No.12507) dated 30/09/2025. This report has been prepared in line with the approved TOR for production of maximum excavation of 4,03,331.50 Ts (1,46,666 m³) of Rough stone up to the depth of 66m (41m above ground level and 25m below ground level) for a period of five years.

1.2 IDENTIFICATION OF PROJECT & PROJECT PROPONENT

The project is for mining of Rough Stone (under cluster) from the S.F.No. 328/2 (Block-36) over an extent of 1.00.0 Ha., in Kalpadi (North), Perambalur Taluk, Perambalur District, Tamil Nadu State. As per EIA notification, 2006 and its subsequent amendments the project comes under Schedule 1 (a) under Category B1 (Lease area >5 to 250 Ha). The proposed project details are given below.

(a) Proposed project details

Sl.No	Description	Status/Remarks
1.	Sector	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 (Thiru.M.T.M. Dhandapani) prior to the year 2016. CCR is not applicable.
5.	Extent of the lease	1.00.0 Ha
6.	Proposed depth of mining	66m (41m above ground level and 25m below ground level
7.	Ultimate Pit Depth	66m (41m above ground level and 25m below ground level
8.	Method of Mining	Opencast mechanized
9.	Life of the Mine	5 Years
10.	Proposed Environmental Clearance	5 Years
11.	Proposed production quantity for five years (upto 66m)	Total Production of 4,03,331.50Ts (1,46,666 m ³) of Rough Stone

(b) Profile of the project proponent

The proposed lessee M/s RRM Transport is an Proprietorship firm with sound experience in the identification of quarry, operation and marketing in the field of Rough Stone quarry. The proposed land is government poramboke land, please refer **Annexure no -6.**

(c) Project proponent details

Name of the proponent : M/s.RRM Transport
 Status of the Proponent : Proprietorship
 Address : 1/303, Ariyalur Main Road, Kavulpalayam, Perambalur -621220.

1.3 BRIEF DESCRIPTION OF NATURE, SIZE, LOCATION OF THE PROJECT AND ITS IMPORTANCE TO THE COUNTRY, REGION:

The proposed quarrying operation Opencast Mechanized method with 5m bench height, 5m bench width and overall bench slope is less than 45°. The quarry operation involves shallow jackhammer drilling, slurry blasting, excavation, loading and transportation.

1.3.1 SIZE AND LOCATION OF THE PROJECT

(a) Size of the project

Table 1.2 Proposed project details		
Sl. No.	Feature	Description
1	Type of land	Government poramboke land
2	Extent of lease area	1.00.0 Ha
3	Type of lease	The applied area was previously operated by some other lessee (Thiru.M.T.M. Dhandapani) prior to the year 2016. CCR is not applicable.
4	Geological Resource	Rough Stone – 3,38,466 m ³
5	Mineable reserves (Quantity in Ts)	Total Production of 4,03,331.50Ts of Rough Stone (1,46,666 m ³)
6	Proposed depth of mining	66m (41m above ground level and 25m below ground level)
7	Ultimate Pit Depth	66m (41m above ground level and 25m below ground level)

(b) Location of the project

The proposed project site is located in Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State and its Latitude: 11°13'15.95"N to 11°13'20.52"N and Longitude: 78°54'52.38"E to 78°54'55.92"E. with Survey of India Topo Sheet No. 58 I/ 16.

1.3.2 IMPORTANCE OF THE PROJECT TO THE COUNTRY AND REGION

There is an increasing demand for rough stone in India and other countries. Since the construction industry is rapidly growing now, there is an increasing demand for rough stone. Thus, this project will contribute not only to the demand of Rough Stone, but also provide employment opportunities to the nearby villages.

1.4 SCOPE OF THE STUDY -DETAILS OF REGULATORY SCOPING CARRIED OUT (AS PER TERMS OF REFERENCE):

Any mining project may cause environmental impacts near the project site during its operation. The type and intensity of impacts on various components of the environment may vary depending on the nature of the project, as well as its geographical location. The net impacts of the project can be quantified through Environment Impact Assessment (EIA) studies on Physical, Biological and Socio-economic environment. The EIA studies give a basis for preparing an Environmental Management Plan (EMP) to conserve the environment of the area.

For the purpose of preparing EIA/EMP the SEIAA, Tamil Nadu has issued a Terms of Reference ToR Identification No. TO25B0108TN5925656N (F.No.12507), dated 30/09/2025 in accordance with the provisions of EIA Notification 2006 and its subsequent amendments. This EIA study includes both Core and Buffer zone i.e., the lease area and 10km radius of the project area respectively. This EIA report prepared based on the data generated from the summer season 2025 (March 2025 to May 2025) and all individual components of environment are described in detail. An in-depth analysis of available information has been made for working out an effective Environmental Management Plan.

1.4.1 PRESENT STUDY

The Project Proponent has assigned M/s. Global Mining Solutions, Salem for conducting Environment Impact Assessment / Environmental Management Plan (EIA/EMP) for this project. The Environmental Impact Assessment and Environmental Management Plan of this cluster quarry addressing all the environmental related impacts and mitigation measures. The EMP report is based on the data generated from March 2025 to May 2025 by M/s. Shrient Analytical & Research Labs Private Limited, Chennai and the data generated by the FAE of the M/s. Global Mining Solutions, Salem. The study evaluates the prevailing baseline environmental conditions. The objectives of the present study are given below.

- ✦ To prepare the present baseline scenario through primary field monitoring and secondary data for different environmental descriptors such as air, water, noise, traffic, biodiversity, socio-economic etc.
- ✦ To identify the activities of mining that have bearing on the environment
- ✦ To Assess the impact of proposed project activity
- ✦ To suggest preventive mitigation measures
- ✦ To prepare an Environmental Management Plan (EMP) including environmental monitoring.
- ✦ To Prepare Disaster Management Plan.

1.4.2 STATUS OF LITIGATIONS

This is Rough stone Quarry project. There is no litigation/court case pending against this project.

a. Precise Area Communication:

The Project Proponent has obtained Precise Area Communication from the Assistant Director, Department of Geology and Mining, Perambalur, vide Rc.No.104/G&M/2025 dated 02.05.2025. The letter copy enclosed as **Annexure – 2.**

b. Mining Plan Approval Letter:

The project proponent has prepared Mining Plan under rule 8, 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Assistant Director, Dept. of Geology & Mining, Perambalur, vide Rc.No.104/G&M/2025, dated 06.06.2025. The approval letter along with approved plan is enclosed as **Annexure – 3.**

c. 500m radius quarry features:

The project proponent has obtained an official letter from Assistant Director, Dept. of Geology & Mining, Perambalur vide Rc.No.104/G&M/2025 Mines, dated 18.06.2025. The letter copy enclosed as **Annexure – 4.**

d. VAO certification regarding 300 meter features of the project area.

There are no historical places, schools, cemeteries, temples, bird sanctuaries, and wildlife sanctuaries within 300 metres of the proposed project area. In this regard, the project proponent has received an official letter from the Village Administrative Officer, Kalpadi (North), dated 18.07.2025. **The letter copy enclosed as Annexure – 5.**

e. Land document of the proposed lease area:

It is Government land the applicant has obtained tender from the Government.

CHAPTER 2

PROJECT DESCRIPTION

2.1 TYPE OF PROJECT

The type of the project is Opencast Mechanized Mining to excavate Rough stone within the proposed Mine Lease area with drilling, blasting, loading and transportation. This project is located at S.F. No. 328/2 (Block-36) over an extent of 1.00.0 Ha., in Kalpadi (North), Perambalur Taluk, Perambalur District, Tamil Nadu State.

As per EIA notification, 2006 and its subsequent amendments the project comes under Schedule 1 (a) under Category B1 (Lease area >5 to 250 Ha), considering cluster situation and the total cluster area is 13.60.00 Ha. The details of mines located in the cluster area is certified by Assistant Director, Dept. of Geology & Mining, Perambalur vide Rc.No. 104/G&M/2025 dated 18.06.2025.

Table 2.1 500m Radius Cluster Mines Details

S.No	Name of the Quarry Owner	S.F. Nos	Lease Period	Area
a. Existing Quarry				
1.	Thiru.N.Premkumar S/o Narayanasamy, No 144/2 East street, Venkatramanapuram Ariyalur-621705	328/2 (Block 28) Kalpadi north Village Perambalur Taluk	30.06.2021 to 29.06.2026	1.00.0 Ha
2.	Thiru.C.Murugesan S/o Thiru.Chinnappan Kaliyamman nagar, Kavulpalayam Perambalur	328/2 (Block 24) Kalpadi north Village Perambalur Taluk	30.12.2021 to 29.12.2026	1.00.0 Ha
3	Sri.Vinayaka Minerals No.9 5 th street,Nandanam extension, Chennai 600035	328/2 (Block 8) Kalpadi north Village Perambalur Taluk	04.01.2022 to 03.01.2027	2.00.0 Ha
4	M/s. SS Mines and Minerals No.1/189-A, 5 th street, Vasan city, Somarasampettai, Srirangam taluk, Trichy district-620102	328/2 (Block 17) Kalpadi north Village Perambalur Taluk	05.07.2022 to 04.07.2027	1.00.0 Ha

5.	Thiru.K.Ganeskaran S/o krishnasamy No.97 Venkadajalapathi nagar, new stand perambalur dist	328/2 (Block 4) Kalpadi north Village Perambalur Taluk	05.07.2022 to 04.07.2027	1.00.0 Ha
6	Thiru.S.Elumalai s/o Sengodan Naranamanagalam, Alathur taluk Perambalur 621109	328/2 (Block 6) Kalpadi north Village Perambalur Taluk	22.08.2022 to 21.08.2027	1.00.0 Ha
b. Proposed Quarry				
1.	M/s RRM Transport 1/303, Ariyalur Main road, Kavulpalayam, Perambalur-621220	328/2 (Block 36) Kalpadi north Village	-	1.00.0 Ha
2.	M/s.Kavery stone crusher 110/1B, Mauruvathur main road, Perali village Kunnam taluk, Perambalur -621708	328/2 (Block 31) Kalpadi north Village	-	1.10.0 Ha
3	M/s. Perambalur quality minerals 238/1A3, Arumalai road, Sengunam, Perambalur 621220	328/2 (Block 35) Kalpadi north Village	-	1.50.0 Ha
4.	M/s. GKP Transports 174C, 1 st Main road, New colony, Thuraimangalam, Perambalur - 621220	328/2 (Block 37) Kalpadi north Village	-	1.00.0 Ha
5.	M/s.Sri Rajakaliyammam mines and Minerals 2/151, Kaliyammam nagar, kavulpalayam, Thuraimangalam, Perambalur- 621220	328/2 (Block 34) Kalpadi north Village	-	1.00.0 Ha
6	M/s. C.Kamarajrajashree mines and Minerals 262/1, Trichy main road, Thavuthaikulam,Ariyalur -621705	328/2 (Block 38) Kalpadi north Village	-	1.00.0 Ha
C. Expired quarries				
1	Thiru.D.Madhubalan s/o Duraisamy No.2/29 Mariyamman Kovil street, kai kalathur post, Veppanthattai taluk,Perambalur district- 621117	328/2 (Block 3) Kalpadi north Village	28.11.20218 to 27.11.2023	1.00.0 Ha
d.Abandoned quarries				
Nil				
Total Area Under Cluster				13.60.00 Ha

The total lease within the 500m radius (Existing + Proposed) (6 nos + 6 nos) works out to 13.60.00 Ha, including this lease area. As such, the cluster situation TOR is applicable for this project.

2.2 NEED FOR 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 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.

2.3 LOCATION (MAPS SHOWING GENERAL LOCATION, SPECIFIC LOCATION, PROJECT BOUNDARY & PROJECT SITE LAYOUT):

This project site is located in Kalpadi (North), Perambalur Taluk, Perambalur District, Tamil Nadu State. The Nearest Railway line is Ariyalur which is about 18.50 Km on SE side of the area. The National Highway (NH-136) Ariyalur – Athur is about 1.8km on Northeast side of the area. The State Highway (SH-142) Thuraiyur – Thuraiyur is about 2.8Km on Northwest side of the area. The general location is given in Figure 2.1. The specific location is given in Figure 2.2.

FIGURE 2.1 LOCATION MAP

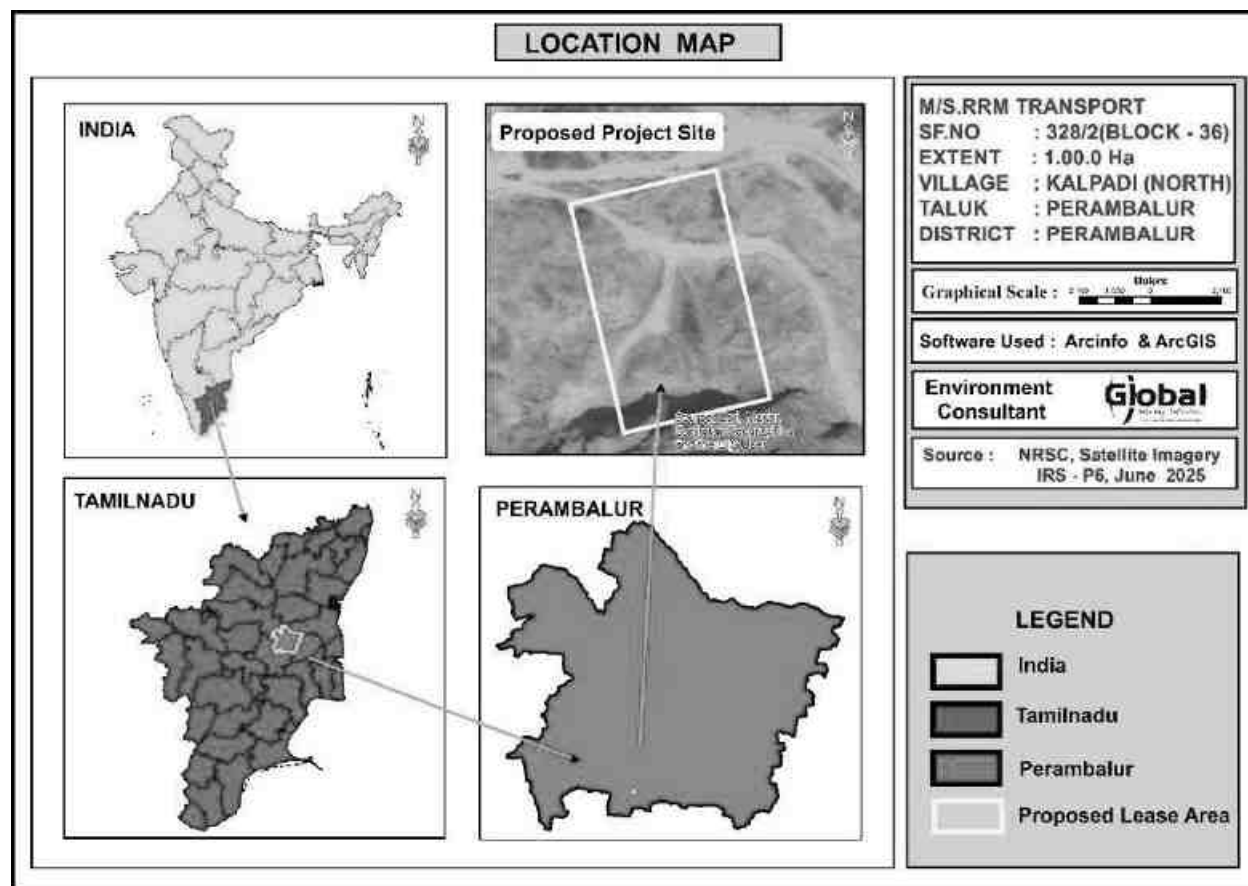


Table 2.2 Co-Ordinates of the Project Site

Corners	Co- ordinates		Distance between the corners	
	Latitude	Longitude		
1	11°13'15.95"N	78°54'53.36"E	1-2	= 125.0m
2	11°13'19.90"N	78°54'52.38"E	2-3	= 80.0m
3	11°13'20.52"N	78°54'54.94"E	3-4	= 125.0m
4	11°13'16.57"N	78°54'55.92"E	4-1	= 80.0m

FIGURE 2.2 GOOGLE IMAGE SHOWING PROJECT SITE

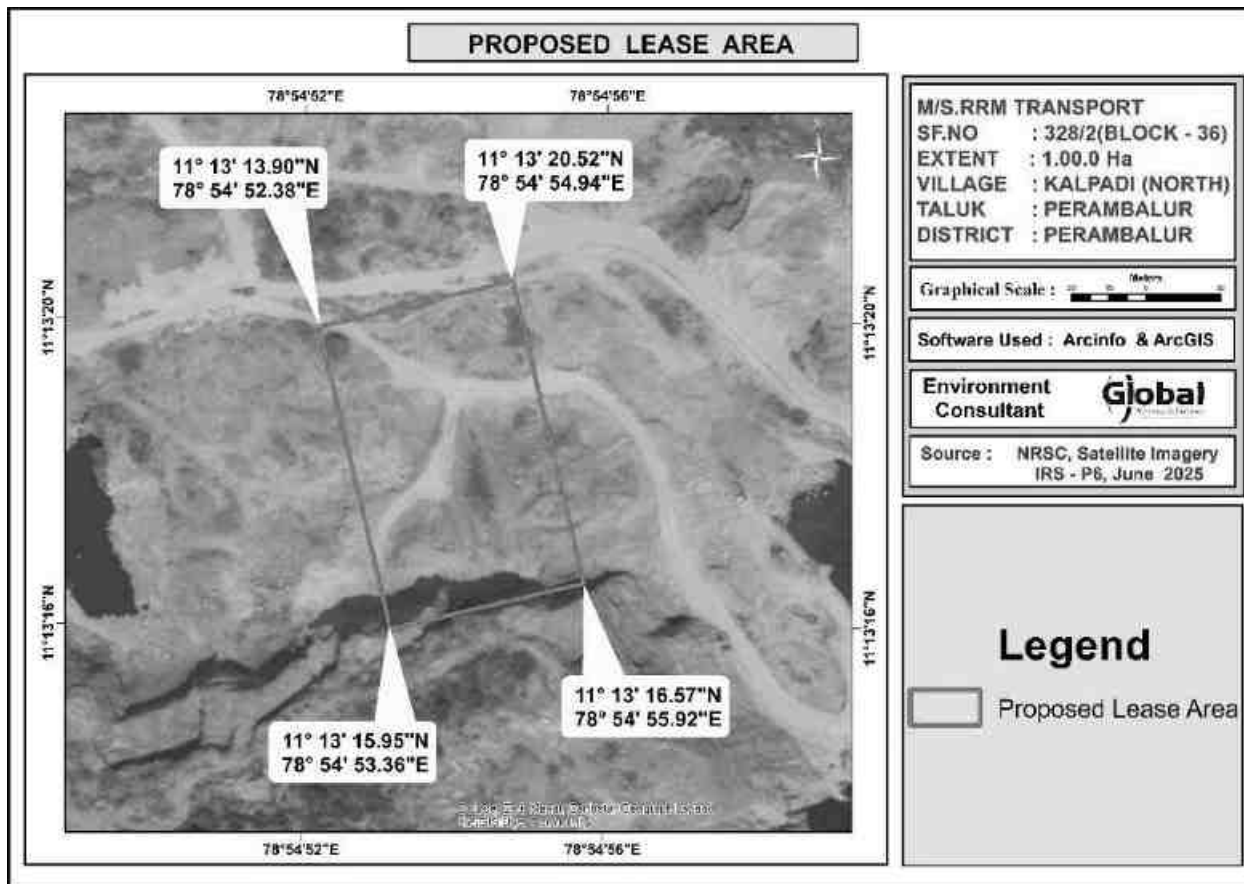


FIGURE 2.3 SURFACE PLAN OF THE PROJECT AREA

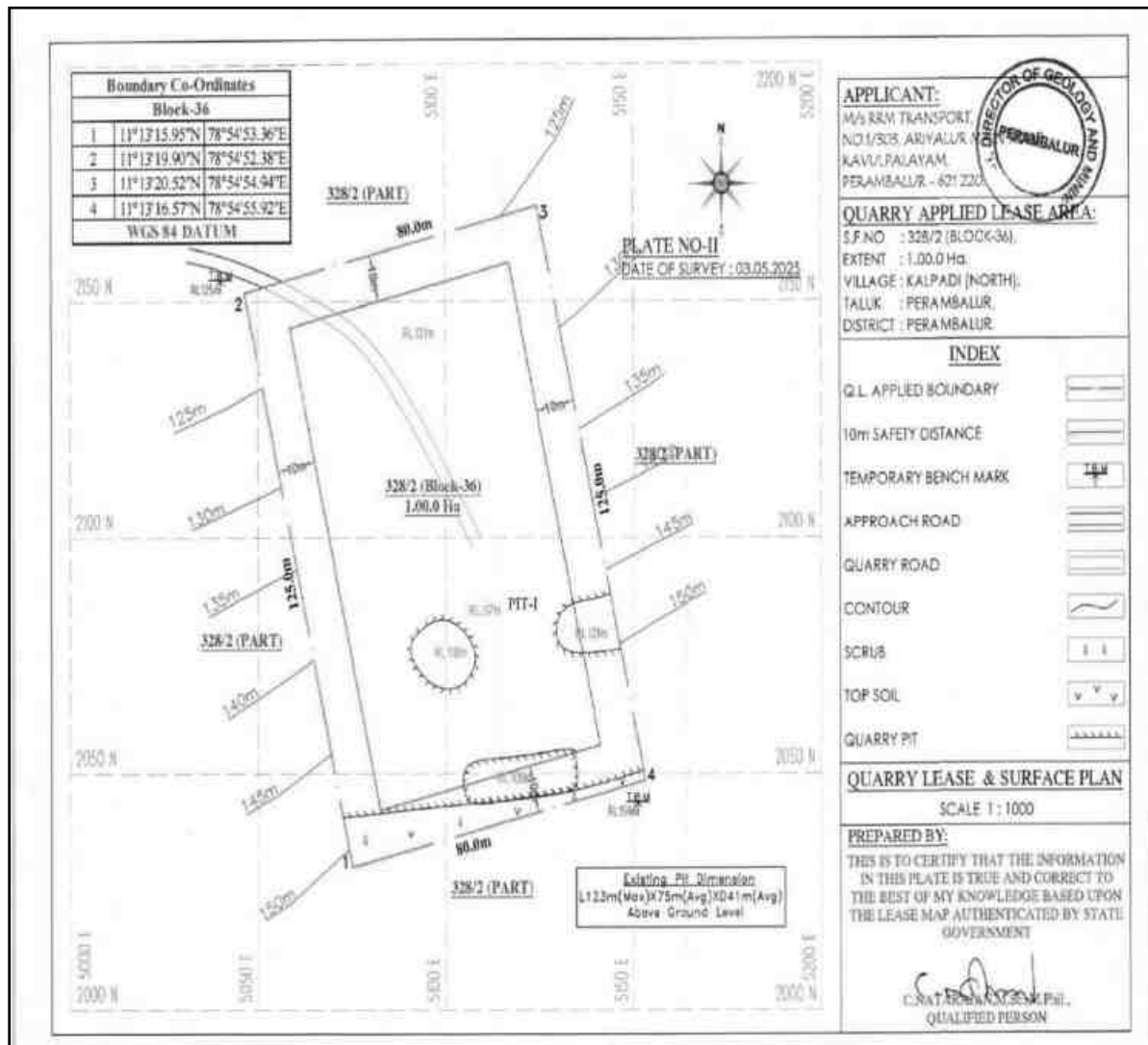
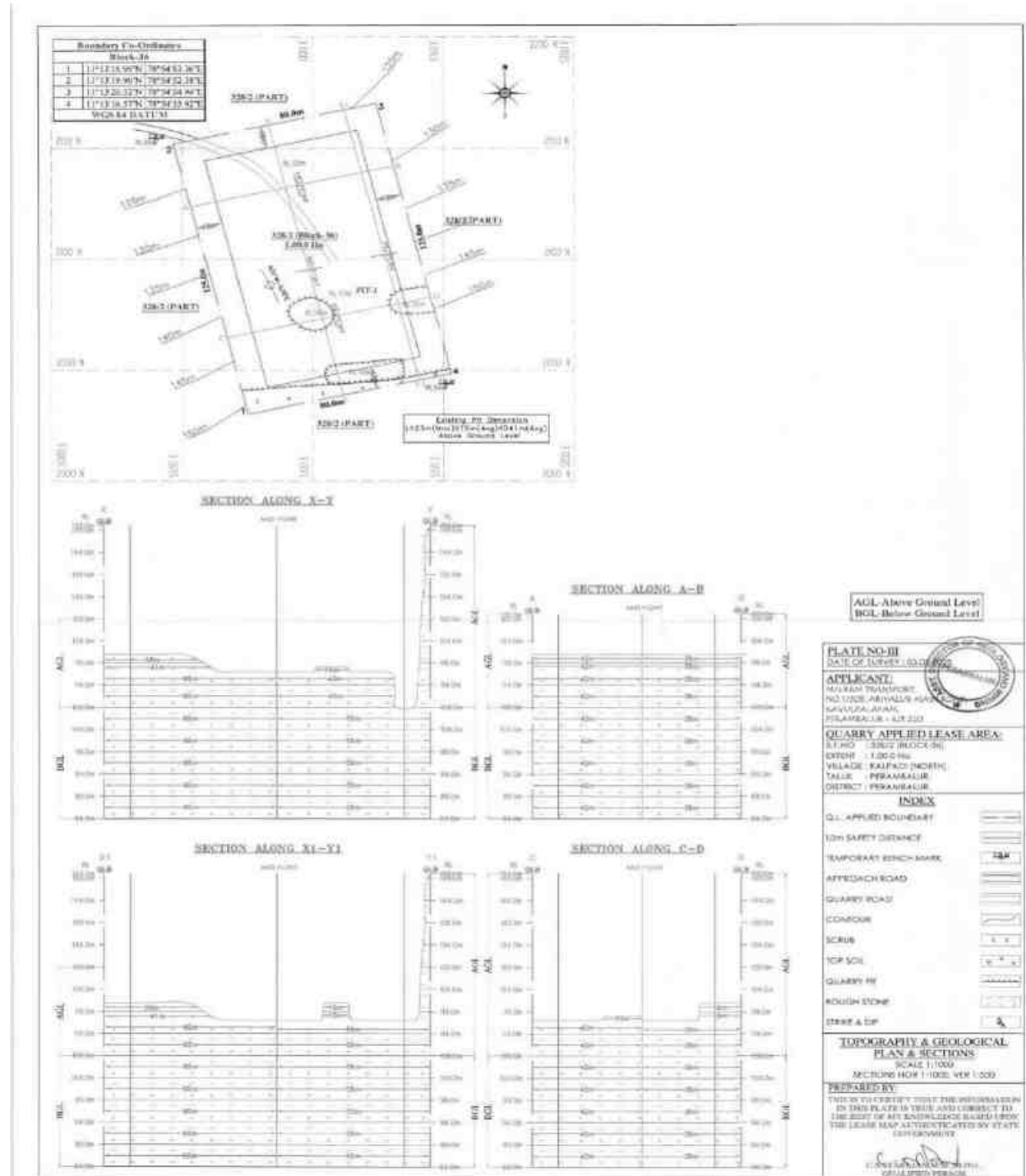


FIGURE - 2.4 GEOLOGY MAP OF PROJECT AREA



2.3.1 LAND USE OF THE PROJECT AREA

The proposed Mine Lease area is government poramboke land and the Land use pattern of the project site is given below Table 2.3.

Table 2.3 Mine Lease Area and its Ownership

Location	S.F. No	Area in Ha	Remarks
Kalpadi (North) Village, Perambalur Taluk, Perambalur District	328 / 2 (Block -36)	1.00.00	It is Government land the applicant has obtained tender from the Government.

Table 2.4 Site Connectivity

S.No	Description	Details	Distance & Direction
1	Village	Kalpadi	485 m -NE
2	Highway	National Highway (NH-136) Ariyalur- Athur State Highway (SH-142) Thuraimanagalam - Thuraiyur	1.8 km (NE) 2.8 Km (NW)
3	Railway Station	Ariyalur Railway Station	18.50 km (SE)
4	Airport	Trichy International Airport	54.00 Km (SW)

Figure 2.5 Topo Map showing existing site features

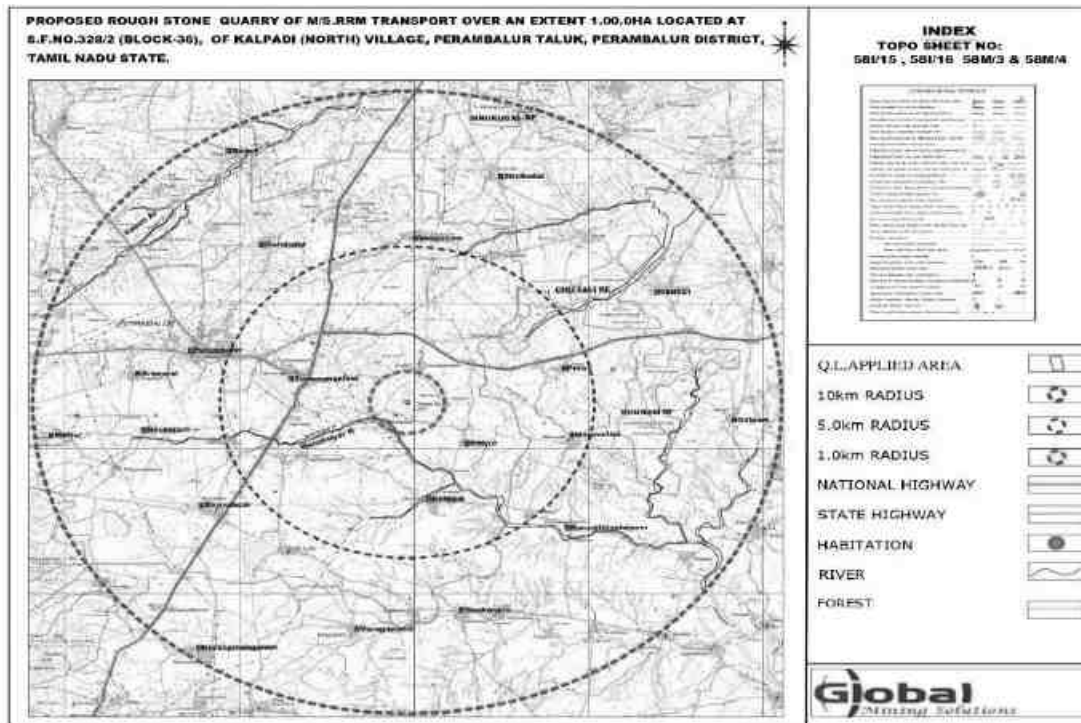
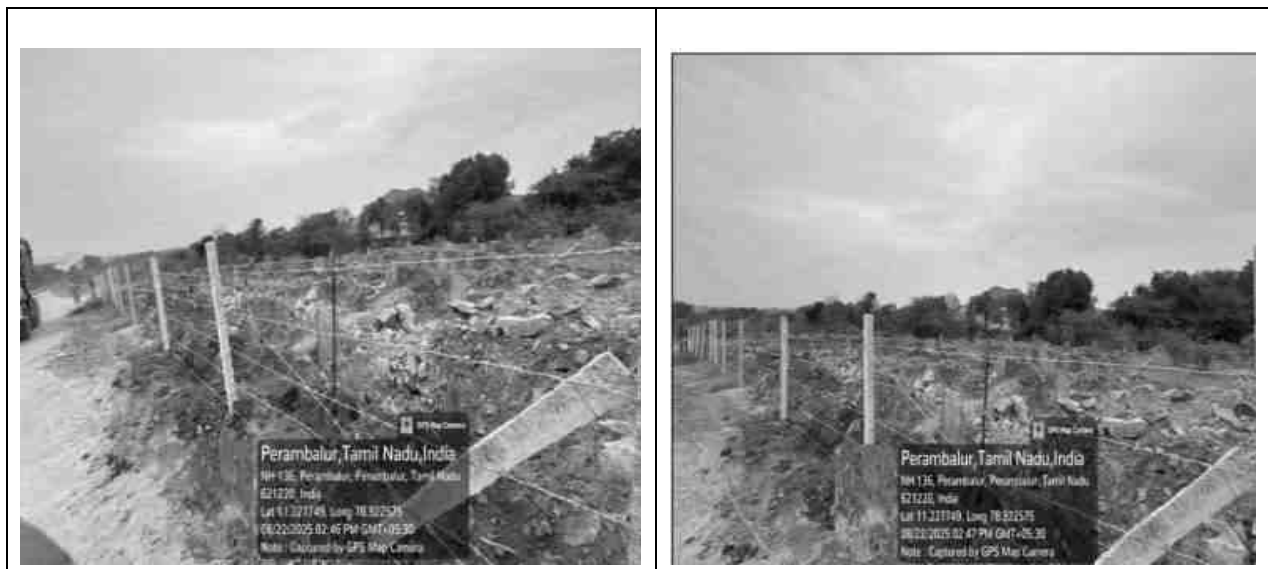


FIGURE 2.6 PROJECT SITE PHOTOGRAPHS



2.4 SIZE OR MAGNITUDE OF OPERATION(INCL.ASSOCIATED ACTIVITIES REQUIRED BY OR FOR THE PROJECT):

The proposed production of rough stone is 4,03,331.50 Ts (1,46,666 m³) by Opencast Mechanized mining method. The details of geological and mineable reserves in the lease area have been provided below in the subsequent sub section.

2.4.1 STATUS OF STATUTORY CLEARANCES, PERMISSIONS, NO OBJECTION CERTIFICATES, CONSENTS:

The mining project will be implemented after getting all the Statutory Clearances, Permissions, No Objection Certificates, consents etc. which are required/necessary for this project under various Acts, Rules and Regulations is as given in table below:

Table - 2.5 Status of Statutory Clearances, Permissions, NOC, Consents

S.No	Particular	Status
1	Mining Plan Approval Status	The project proponent has prepared mining plan under rule 8, 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Assistant Director, Dept. of Geology & Mining, Perambalur, vide Rc.No.104/G&M/2025, dated 06.06.2025.
2	Environment Clearance Status	ToR Letter Received vide file no TO25B0108TN5925656N, dated 30/09/2025
3	Grant of Consent to Establish (CTE)	After 30 days from grant of EC (Duration as per TNPCB)
4	Grant of Consent to Operate (CTO)	After 30 days from grant of EC (Duration as per TNPCB)

2.5 PROPOSED SCHEDULE FOR APPROVAL & IMPLEMENTATION

Proposed schedule for approval of the proposed mining project is given as under:

Table - 2.6 Proposed Schedule for Approval

S.N	Activity Description	Feb 2026	Mar 2026	April 2026	May 2026
1	Submission of Final EIA/EMP Report to SEIAA-TN				
2	Consideration for EC by SEAC				
3	Recommendation of SEAC to SEIAA				
4	Grant of EC by SEIAA				

Proposed schedule has been prepared as per EIA Notification, 2006

Note: Application was submitted to Parivesh Portal on 24.07.2025, ToR was granted on 30.09.2025. Baseline data Collection during Summer Season (March to May 2025). After obtaining EC from SEIAA-TN, CTE and CTO under section 21 of the Air (Prevention and Control Act) 1981 and section 25/26 Water (Prevention and Control of Pollution Act) 1974 will be obtained from Tamil Nadu State Pollution Control Board (TNPCB).

2.5.1 IMPLEMENTATION

Implementation of the proposed mining project will be done in accordance with the existing Acts and Rules applicable on mining operations as well as in accordance with any Act/Rule/Guidelines issued by Central or State Government from time to time and as per Mining Plan and Progressive Mine Closure Plan approved by Assistant Director, Dept. of Geology & Mining, Perambalur, vide Rc.No.104/G&M/2025, dated 06.06.2025.

2.6 TECHNOLOGY & PROCESS DESCRIPTION

2.6.1 BASIC REQUIREMENTS FOR THE PROJECT

The project requirements such as water, power, man-power, fuel, machinery with source of supply is described in the sections below.

2.6.2 WATER REQUIREMENTS

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 of 0.5 KLD will be generated, for which a septic tank with soak pit will be set up. The water balance diagram is given below.

FIG 2.7 WATER BALANCE DIAGRAM

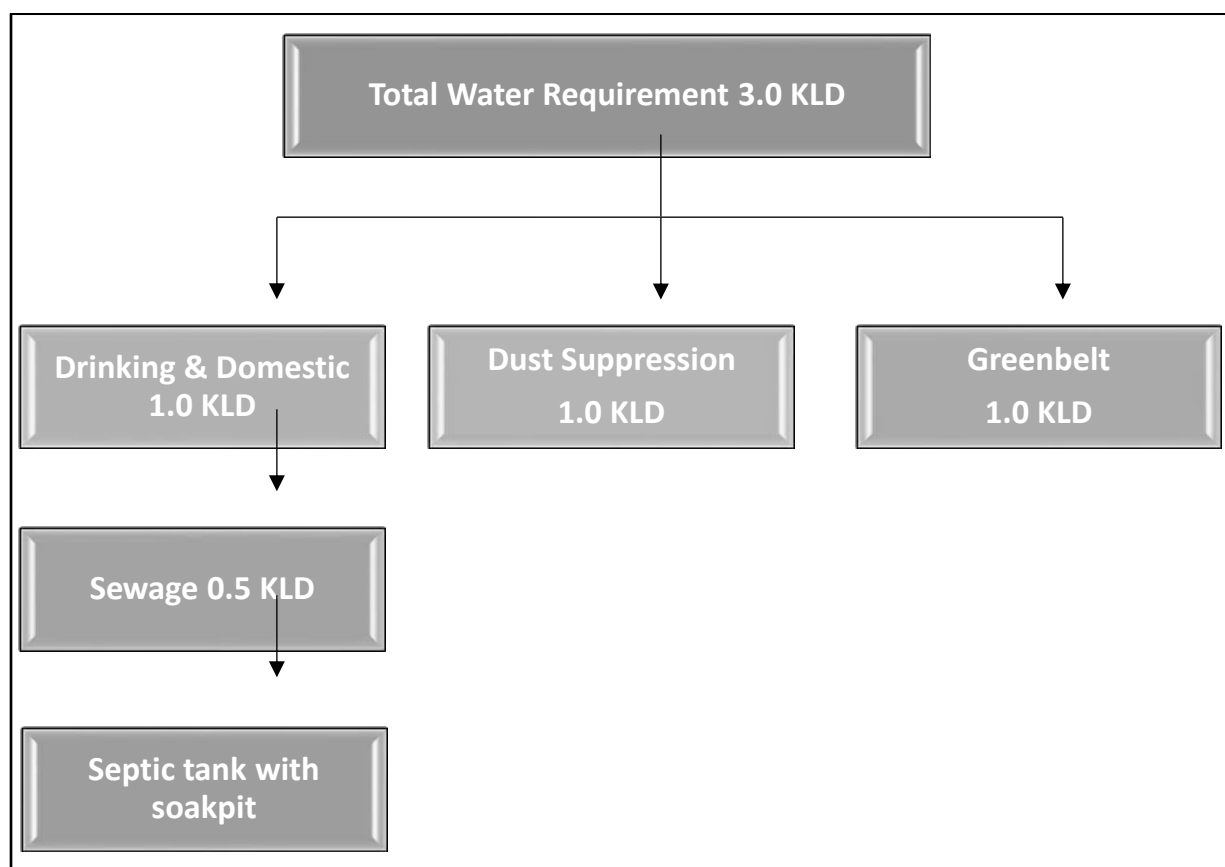


Table - 2.7 Water Requirement

S. No	Particular	Water Requirement (KLD)
1	Dust suppression	1.0
2	Drinking/Domestic	1.0
3	Greenbelt/Plantation	1.0
Total		3.0

2.6.3 POWER REQUIREMENT

Total Fuel requirement is 1,17,333 Litres for entire life of the project. Power will be used only in the office building

2.6.4 MAN POWER REQUIREMENT

Total Manpower requirement will be 25 persons which out of which 13 persons (Mines manager, Foreman, Mining Mate, etc.,) and other are drivers and workman's categories. Beside this, 12 workmen will be drivers and workmen. Preference will be given to the locals as per their eligibility.

S.No	Description	Employment potential
1	Mines Manager	1 No.
2	Foreman / Mate	2 Nos.
3	Operator	6 Nos.
4	Mechanic	1 No.
5	Driver	3 Nos.
6	Labours	12 Nos
Total		25 Nos

2.6.5 EXTENT OF MECHANIZATION

Table 2.8 Machineries involved in the project				
S.No.	Particulars	capacity	Motive Power	Nos
1.	Jack hammer	32mm dia	Compressed air	2
2.	Compressor	1 psi	Diesel drive	1
3.	Excavator with Bucket and Rock Breaker	0.90 m ³	Diesel drive	1
4.	Tippers	5/10 Ts	Diesel drive	3

Source: Approved Mining Plan

Note: The mining equipment's of the above capacities are adequate for total material handling requirements for the proposed production of Rough stone in the ML area.

2.6.6 GEOLOGY AND TOPOGRAPHY

Topography

The mine lease area of 1.00.0 Ha is covered in the Survey of India Toposheet 58 I/16 and is bounded by Latitude: 11°13'15.95"N to 11°13'20.52"N and Longitude: 78°54'52.38"E to 78°54'55.92"E. No major river is found nearby the lease applied area. Water table is found at a depth of 70 m. Temperature of the area is reported to be 18° C to a maximum of 42° C during summer. Rainfall of this area is about 800 mm to 900 mm during the both NE & SW monsoons.

The topo map showing the lease area of the proposed quarry is given in Figure 2.1 and Satellite map showing proposed lease area is given in Figure 2.2.

The elevation of the proposed quarry is 150 m (maximum) from MSL. There is no forest land in the mine lease area. The project site is dry land which is not fit for any cropping.

2.6.7 Regional Geology

The north and western part of the district is mainly covered (> 80 %) with Archaean rocks and is mainly comprises of Hornblende Gneiss and Chaornockite and the eastern part is covered with cretaceous sediments. The Sathyamangalam rocks are distributed along the east-west tract in central Tamil Nadu confined between Bhavani – Attur lineament in the north and Noyil – Cauvery lineament in the south (Subramanian and Selvan, 2001). Similar rocks are also known in the northwestern part of the state in Dharmapuri district. The equivalents of Sakarsanahalli (Sargur) supracrustals are described in Dimbapattinakara areas of Kollegal – Krishnagiri terrane (GSI, 1998). Though the Sathyamangalam Group of rocks are said to be exposed within the Bhavani gneiss in the E-W trending belt in central Tamil Nadu in parts of Coimbatore, Salem, Namakkal, Perambalur and Tiruchirapalli districts.

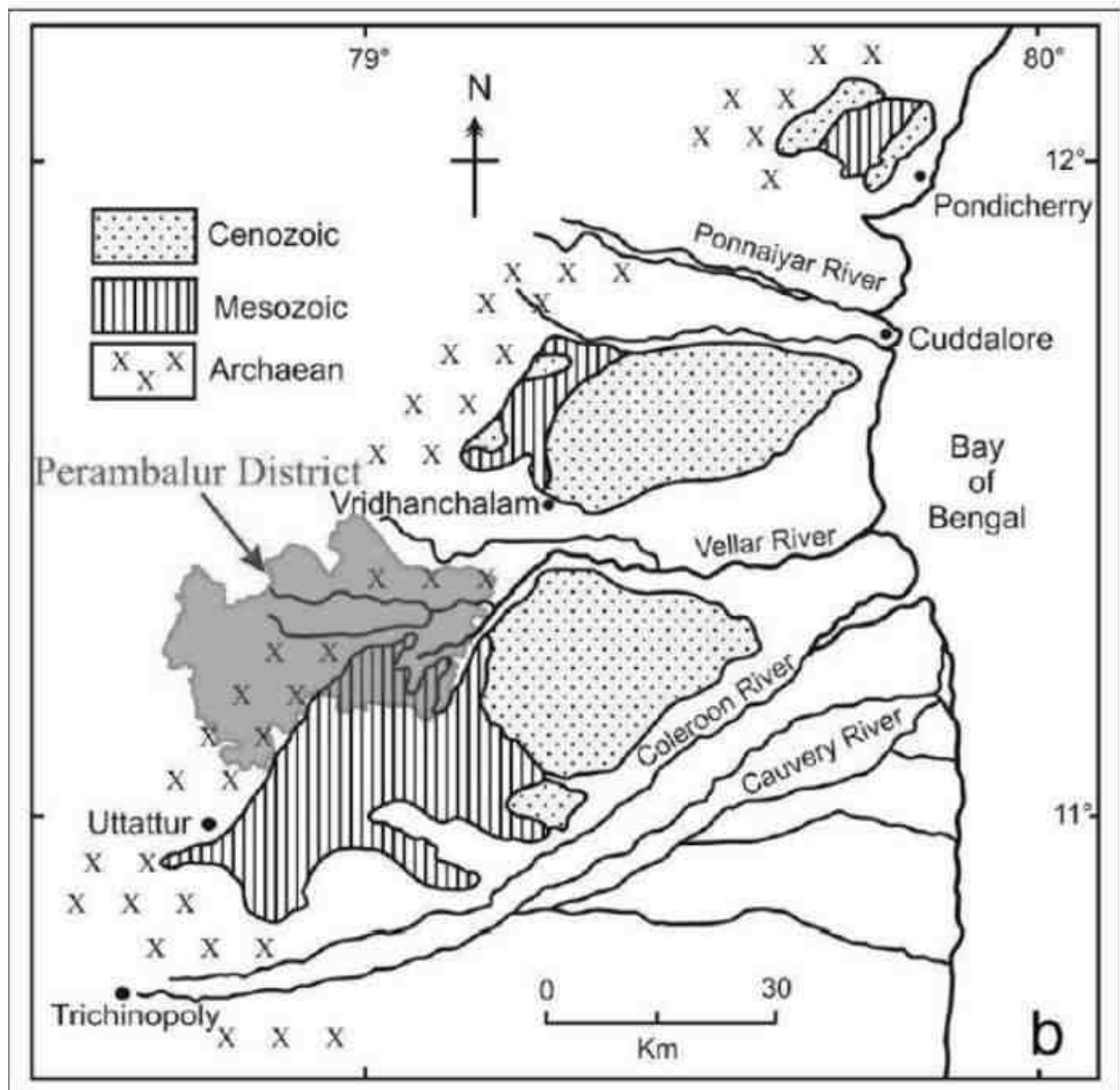
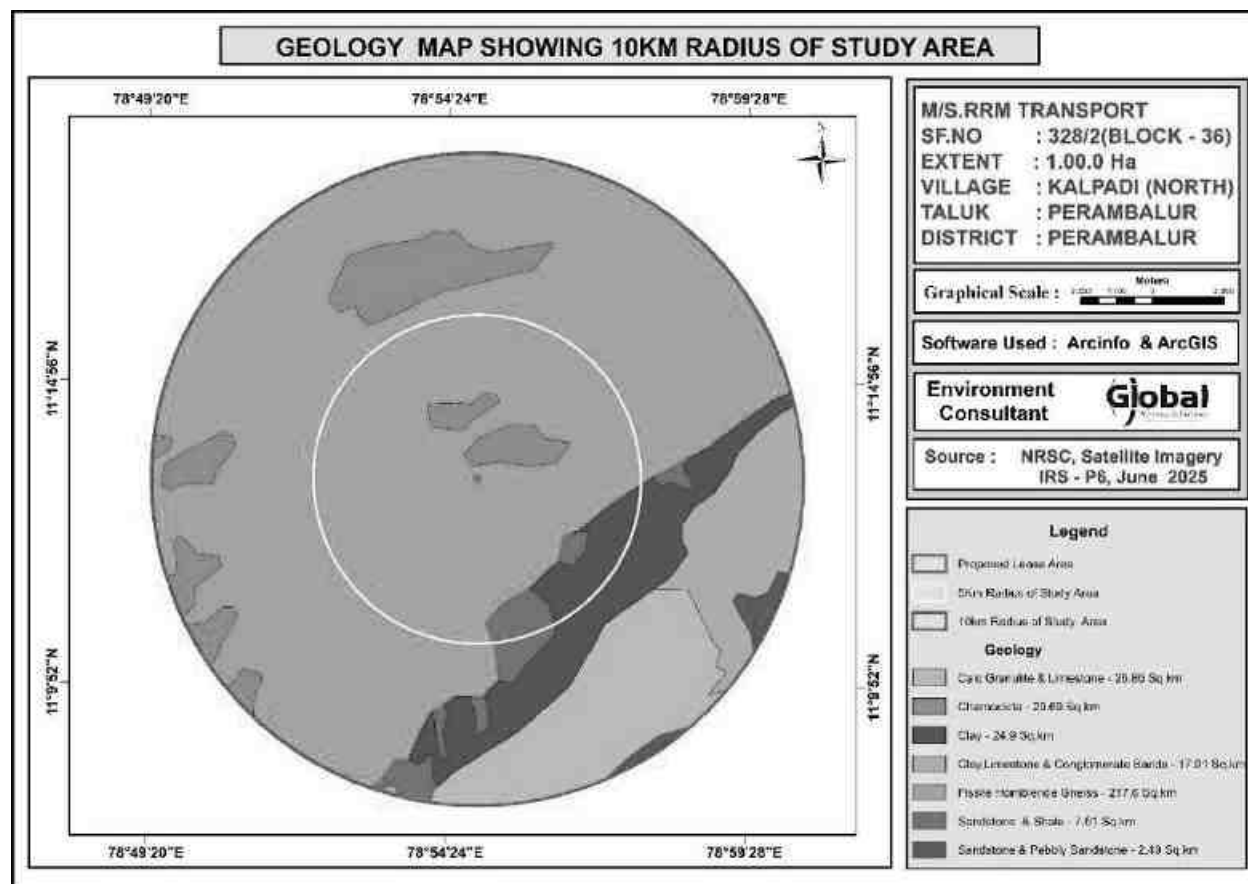


FIGURE 2.8 REGIONAL GEOLOGY MAP-10 Km RADIUS FROM PROJECT AREA



2.6.8 Local Geology

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°E – S30°W with vertical dipping.

The general geological succession of the area is given as under.

↑	Age		Rock Type
	Recent	-	Top soil
	Unconformity		
	Archaeon		Dolerite dyke, Charnockite
		-	Peninsular Gneissic complex and
			Calc Gneiss

Table 2.9 Geological Resources

Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Rough stone in m ³	Bulk Density	Geological Resources of Rough stone in Ts
XY-AB	Above Ground Level	III	36	42	2	3024	2.75	8316.00
		IV	41	42	2	3444	2.75	9471.00
			66	42	3	8316	2.75	22869.00
		V	66	42	5	13860	2.75	38115.00
	Below Ground Level	VI	66	42	5	13860	2.75	38115.00
		VII	66	42	5	13860	2.75	38115.00
		VIII	66	42	5	13860	2.75	38115.00
		IX	66	42	5	13860	2.75	38115.00
		X	66	42	5	13860	2.75	38115.00
	Total					97944	-	269346.00
XY-CD	Above Ground Level	VIII	14	15	1	210	2.75	577.50
			45	42	3	5670	2.75	15592.50
		IX	45	42	5	9450	2.75	25987.50
	Below Ground Level	X	59	42	5	12390	2.75	34072.50
		XI	59	42	5	12390	2.75	34072.50
		XII	59	42	5	12390	2.75	34072.50
		XIII	59	42	5	12390	2.75	34072.50
		XIV	59	42	5	12390	2.75	34072.50
	Total					77280	-	212520.00
X1Y1-AB	Above Ground Level	III	36	38	2	2736	2.75	7524.00
		IV	41	38	2	3116	2.75	8569.00
			66	38	3	7524	2.75	20691.00
		V	66	38	5	12540	2.75	34485.00
	Below Ground Level	VI	66	38	5	12540	2.75	34485.00
		VII	66	38	5	12540	2.75	34485.00
		VIII	66	38	5	12540	2.75	34485.00
		IX	66	38	5	12540	2.75	34485.00
		X	66	38	5	12540	2.75	34485.00
	Total					88616	-	243694.00

X1Y1- CD	Above Ground Level	VII	10	16	2	320	2.75	880.00
		VIII	10	16	2	320	2.75	880.00
			59	38	3	6726	2.75	18496.50
		IX	59	38	5	11210	2.75	30827.50
	Below Ground Level	X	59	38	5	11210	2.75	30827.50
		XI	59	38	5	11210	2.75	30827.50
		XII	59	38	5	11210	2.75	30827.50
		XIII	59	38	5	11210	2.75	30827.50
		XIV	59	38	5	11210	2.75	30827.50
Total						74626	-	205221.50
Grand Total						338466	-	930781.50

The Geological Resources of Rough stone : 9,30,781.50 Ts

Already excavated

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

Pit No	length (Max) in(m)	Width (Avg) in (m)	Depth (Max) in (m)
I	123	75	41m (above ground level)

Table 2.10 Mineable Resource

Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Rough stone in m³	Bulk Density	Mineable Reserves of Rough stone in Ts
XY-AB	Above Ground Level	III	26	32	2	1664	2.75	4576.00
		IV	31	32	2	1984	2.75	5456.00
			56	32	3	5376	2.75	14784.00
		V	56	32	5	8960	2.75	24640.00
	Below Ground Level	VI	56	32	5	8960	2.75	24640.00
		VII	51	27	5	6885	2.75	18933.75
		VIII	46	22	5	5060	2.75	13915.00
		IX	41	17	5	3485	2.75	9583.75
		X	36	12	5	2160	2.75	5940.00
Total						44534	-	122468.50
XY-CD	Above Ground Level	VIII	14	15	1	210	2.75	577.50
			45	32	3	4320	2.75	11880.00
		IX	45	32	5	7200	2.75	19800.00

	Below Ground Level	X	49	32	5	7840	2.75	21560.00
		XI	44	27	5	5940	2.75	16335.00
		XII	39	22	5	4290	2.75	11797.50
		XIII	34	17	5	2890	2.75	7947.50
		XIV	29	12	5	1740	2.75	4785.00
Total						34430	-	94682.50
X1Y1- AB	Above Ground Level	III	26	28	2	1456	2.75	4004.00
		IV	31	28	2	1736	2.75	4774.00
			56	28	3	4704	2.75	12936.00
		V	56	28	5	7840	2.75	21560.00
	Below Ground Level	VI	56	28	5	7840	2.75	21560.00
		VII	51	23	5	5865	2.75	16128.75
		VIII	46	18	5	4140	2.75	11385.00
		IX	41	13	5	2665	2.75	7328.75
		X	36	8	5	1440	2.75	3960.00
Total						37686	-	103636.50
X1Y1- CD	Above Ground Level	VII	10	6	2	120	2.75	330.00
		VIII	10	6	2	120	2.75	330.00
			49	28	3	4116	2.75	11319.00
		IX	49	28	5	6860	2.75	18865.00
	Below Ground Level	X	49	28	5	6860	2.75	18865.00
		XI	44	23	5	5060	2.75	13915.00
		XII	39	18	5	3510	2.75	9652.50
		XIII	34	13	5	2210	2.75	6077.50
		XIV	29	8	5	1160	2.75	3190.00
Total						30016	-	82544.00
Grand Total						146666	-	403331.50

2.7 PROJECT DESCRIPTION INCLUDING DRAWING SHOWING PROJECT LAY OUT COMPONENTS OF PROJECT ETC., SCHEMATIC REPRESENTATION OF THE FEASIBILITY DRAWING WHICH GIVE INFORMATION IMPORTANT FOR EIA PURPOSE.

2.7.1 PROCESS DESCRIPTION

PROPOSED METHOD OF MINING

Opencast mechanized method with 5.0 m height 5.0m width and overall, 60° slope of the bench. It is proposed to excavate 4,03,331.50 Ts (1,46,666 m³) of Rough Stone. No wastage is envisaged as the entire material available is Rough Stone only.

TIMING

Mining will be done on single shift basis. Timing will be 8 hours from 8 AM to 1 Noon and 2 PM to 5 PM. Lunch time will be provided between 1 Noon and 2 PM. Timing may be variable from season to season depending upon the sunrise and sunset. Weekly one day will be declared as holiday.

BENCH GEOMETRY

Height (max) and Width (max) of the benches will be maintained as 5m each and number of proposed benches is 14, overall slope angle will be at around 70° with the horizontal.

DEVELOPMENT OF MINING FACES

The proposed mining method is Opencast Mechanized mining. Site preparation as such bush cleaning, approach road, office and sanitary facilities will be done after obtaining all the statutory clearances as such Environmental Clearance, Consent to Operate, Lease Deed, etc., Once site is ready will start the quarrying operation and it is anticipated in the month of May 2026.

DRILLING & BLASTING

Drilling will be done up to maximum depth of 66m (41m above ground level and 25m below ground level) Drilling diameter will be 32 mm. Jackhammer will be used for drilling with water spray. Powder factor of explosives for breaking such hard rock shall be in the order of 6-7 Tonnes per Kg of explosives. Small dia 25 mm slurry explosive is proposed to be used for shattering and heaving effect for removal of Rough Stone. The proposed blasting pattern is given as Figure 2.9.

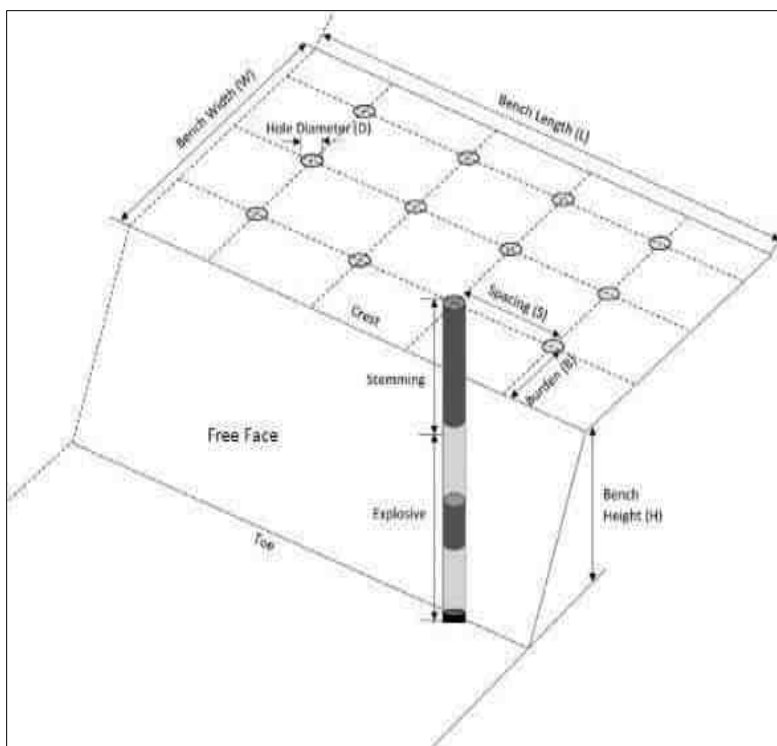


FIGURE 2.9 BLASTING PATTERN

LOADING& TRANSPORTATION OF ROUGH STONE

Hydraulic excavator will be used for lifting and loading of the rough stone. This excavator in combination with Tippers (10MT) capacity of 3 nos will be used.

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 2.10. The mineable plan and cross section and production plan and cross section is given in Figure No. 2.11 - Figure No. 2.12.

FIGURE 2.10 FLOW CHART OF THE QUARRY OPERATION

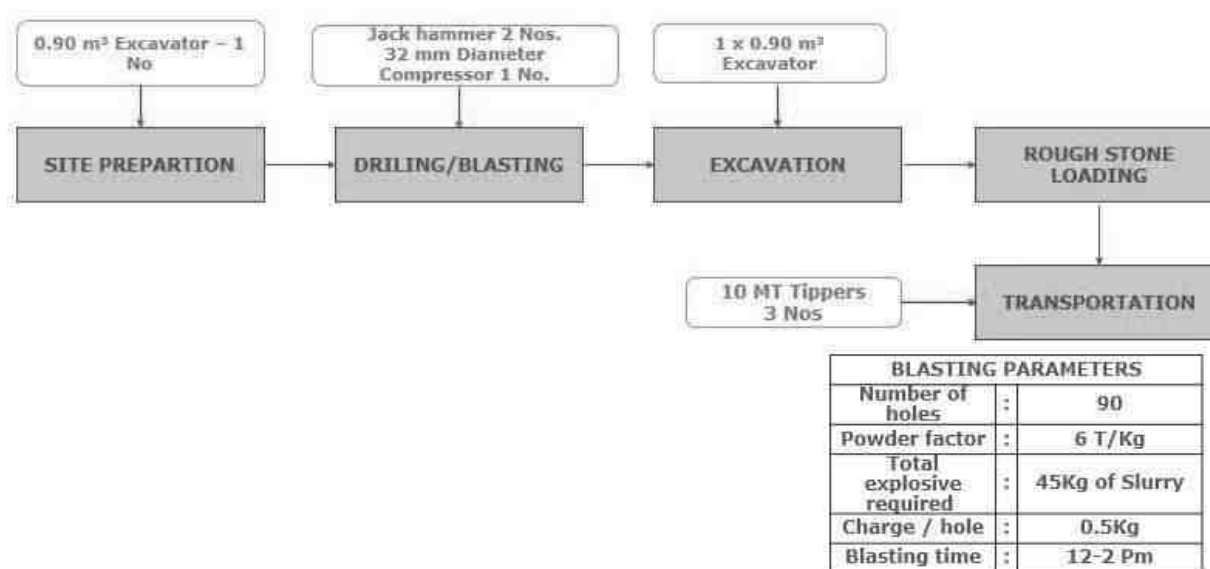


TABLE - 2.11 MINING DETAILS

Sl. No	Description	Details	Remarks
1.	Method of Mining	Opencast Mechanized Mining with 5.0 m height 5.0 m width and overall 70° slope of the bench. Hydraulic excavator will be used for the excavation and 5/10T tippers will be used for the Hauling.	Excavator - 1 No. Tippers - 3 Nos.
2.	Mineral Use	The excavated Rough Stone will be used for construction industries for Government & Public sector projects besides catering for domestic housing and infrastructure projects in and around the district.	-

3.	Proposed Depth of mining for the first five years	66m (41m above ground level and 25m below ground level)	The water table in the area is around 70m BGL
4.	Proposed Production quantity	4,03,331.50Ts of Rough Stone (1,46,666 m3)	5 years
5.	Safety Zone	Out of 1.00.0 Ha, 0.05.50 Ha will be maintained as a Safety Zone during mining operations.	Around 55 nos. of saplings will be planted in this safe area.
6.	Water requirement	3 KLD	Procured by the outside water.
7.	Energy requirement	1,17,333 Litres of HSD (Entire Project Life)	All the equipment will be diesel-operated. No electricity is needed for mining operations.
8.	Manpower	Total manpower	This project will give employment opportunities to 25 people.
9.	Shift	General Shift	8.00 AM – 5.00 PM
10.	Project Cost	284.47 Lakhs	Including Fixed Asset + Operational & EMP cost
11.	EMP Cost	17.97 Lakhs	5 years
12.	CER Cost	Rs. 3.0 Lakhs.	The amount will be utilized for the development of nearby government schools.

2.7.2 YEAR WISE PRODUCTION & EXCAVATION DETAILS

Year wise Production of Rough stone from the area will be upto maximum capacity. The recovery factor is up to 100% hence no waste expected to be generated. All

excavated quantity is saleable. The summary of proposed development and production during the mine plan period is given in Table 2.12.

Table 2.12 Summary of production for 5 Years

Year	Section	Topography	Bench	Length in (m)	Width in (m)	Depth in (m)	Rough stone in m³	Bulk Density	Mineable Reserves of Rough stone in Ts
I	XY-AB	Above Ground Level	III	26	32	2	1664	2.75	4576.00
			IV	31	32	2	1984	2.75	5456.00
				56	32	3	5376	2.75	14784.00
	XY-CD	Above Ground Level	VIII	14	15	1	210	2.75	577.50
				45	32	3	4320	2.75	11880.00
	X1Y1-CD	Above Ground Level	VII	10	6	2	120	2.75	330.00
			VIII	10	6	2	120	2.75	330.00
				49	28	3	4116	2.75	11319.00
	X1Y1-AB	Above Ground Level	III	26	28	2	1456	2.75	4004.00
			IV	31	28	2	1736	2.75	4774.00
				56	28	3	4704	2.75	12936.00
			V	25	28	5	3500	2.75	9625.00
Total							29306	-	80591.50
II	X1Y1-AB	Above Ground Level	V	31	28	5	4340	2.75	11935.00
	X1Y1-CD	Above Ground Level	IX	49	28	5	6860	2.75	18865.00
	XY-CD	Above Ground Level	IX	45	32	5	7200	2.75	19800.00
	XY-AB	Above Ground Level	V	56	32	5	8960	2.75	24640.00
		Below Ground Level	VI	13	32	5	2080	2.75	5720.00
Total							29440	-	80960.00
III	XY-AB	Below Ground Level	VI	43	32	5	6880	2.75	18920.00
	XY-CD	Below Ground Level	X	49	32	5	7840	2.75	21560.00
	X1Y1-CD	Below Ground Level	X	49	28	5	6860	2.75	18865.00
	X1Y1-AB	Below Ground Level	VI	56	28	5	7840	2.75	21560.00
Total							29420	-	80905.00

DRAFT EIA/EMP FOR THE ROUGH STONE QUARRY OF M/s. RRM TRANSPORT OVER AN EXTENT OF 1.00.0 HA LOCATED AT THE SF. NO. 328/2 (BLOCK-36) OF KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE.

IV	X1Y1-AB	Below Ground Level	VII	51	23	5	5865	2.75	16128.75
	X1Y1-CD	Below Ground Level	XI	44	23	5	5060	2.75	13915.00
	XY-CD	Below Ground Level	XI	44	27	5	5940	2.75	16335.00
			XII	5	22	5	550	2.75	1512.50
	XY-AB	Below Ground Level	VII	51	27	5	6885	2.75	18933.75
			VIII	46	22	5	5060	2.75	13915.00
Total							29360	-	80740.00
V	XY-CD	Below Ground Level	XII	34	22	5	3740	2.75	10285.00
			XIII	34	17	5	2890	2.75	7947.50
			XIV	29	12	5	1740	2.75	4785.00
	X1Y1-CD	Below Ground Level	XII	39	18	5	3510	2.75	9652.50
			XIII	34	13	5	2210	2.75	6077.50
			XIV	29	8	5	1160	2.75	3190.00
	X1Y1-AB	Below Ground Level	VIII	46	18	5	4140	2.75	11385.00
			IX	41	13	5	2665	2.75	7328.75
			X	36	8	5	1440	2.75	3960.00
	XY-AB	Below Ground Level	IX	41	17	5	3485	2.75	9583.75
			X	36	12	5	2160	2.75	5940.00
Total							29140		80135.00
Grand Total							146666		403331.50

Figure : 2.11 Mineable plan and Cross section

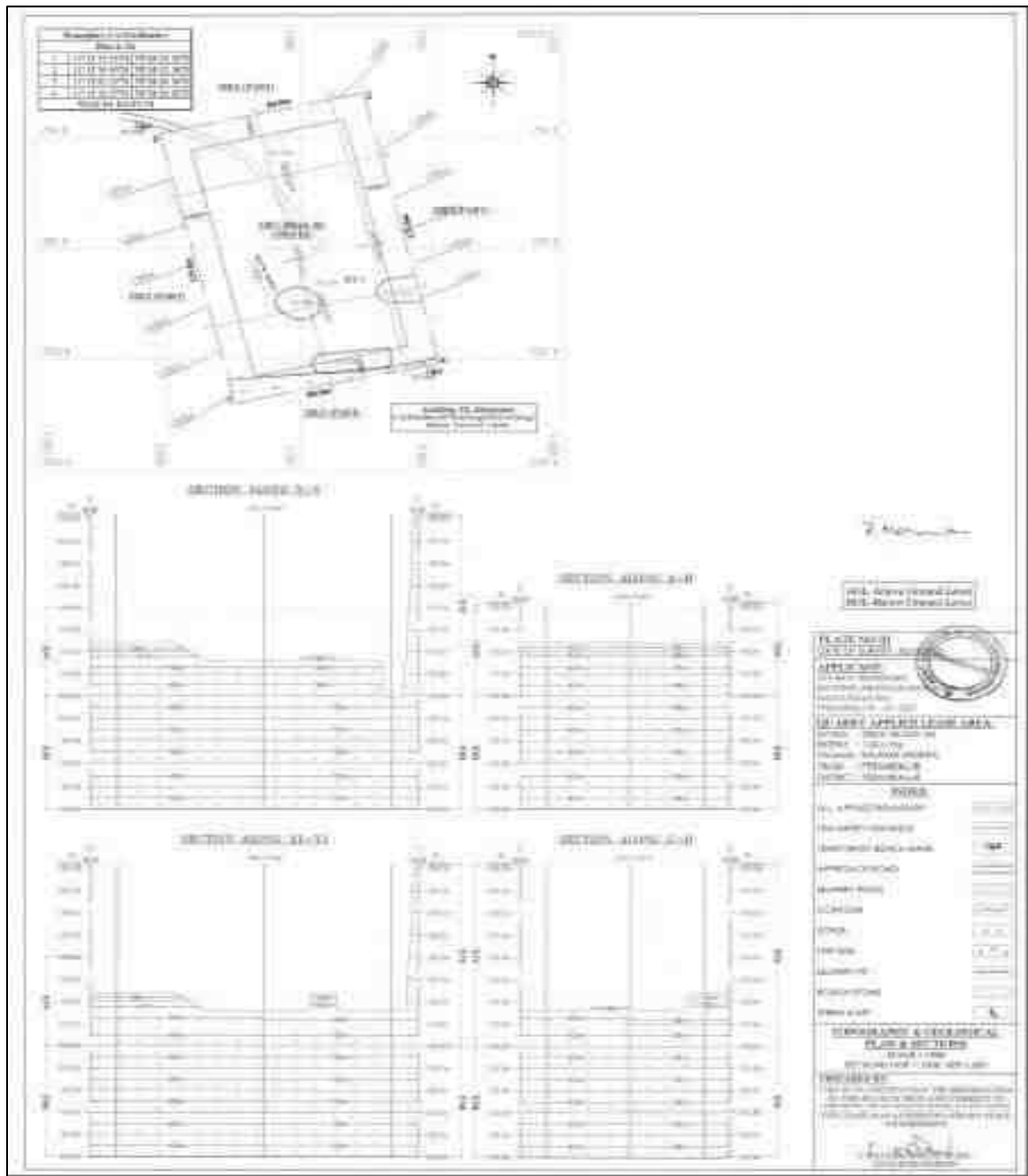
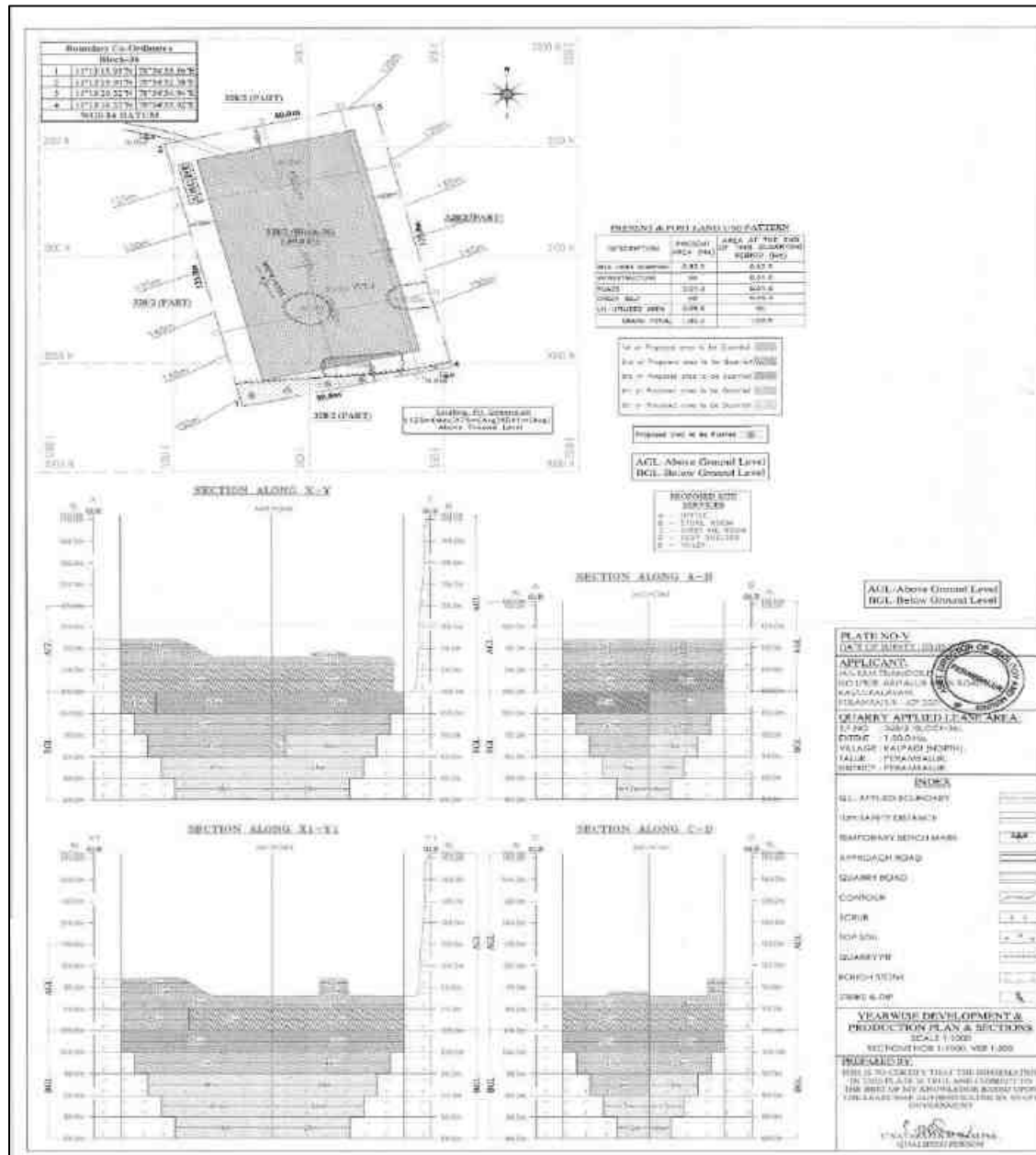


Figure 2.12 Production plan and Cross section



2.7.3 CONCEPTUAL PERIOD

During conceptual stage the mined-out area will be converted into water reservoir and safety zone as well as upper benches will be used for plantation at the conceptual period. It will also serve the purpose as socio economic and corporate social responsibility of the lessee by way of supplying water for irrigation purpose or at will of the local people. This will help in ground water recharging as well. The conceptual

plan and section of mine lease area is given in Figure 2.13. Ultimate extent and size of the quarry at the conceptual stage is given below as Table 2.13 and Land Use pattern is given as Table 2.14 The conceptual plan is given as Figure 2.13.

TABLE 2.13 Ultimate Pit Dimension			
Pit No.	Length (max) (m)	Width (Avg) (m)	Depth (max) (m)
Ultimate Pit dimension at the end of Mining Plan Period as per approved Mining Plan			
I	123	75	66m (41m above ground level and 25m below ground level)

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	0.92.50	0.92.50
Infrastructure	Nil	0.01.00
Roads	0.01.00	0.01.00
Greenbelt	Nil	0.05.50
Unutilized	0.06.50	Nil
Total	1.00.00	1.00.00

- 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 (0.05.50 Ha.) will be developed along the safety barrier and top benches and 0.02 Ha are approach road and Infrastructure.

from the mining operations to meet the environmental standards and environmental operating conditions are as follows:

2.8.1 AIR QUALITY MANAGEMENT

Drilling

Drilling machines are proposed to be equipped with wet drilling arrangements and cyclone dust collectors.

Blasting

- Controlled blasting is proposed to be adopted and optimum use of explosive energy will help in reducing the air pollution.
- Secondary blasting will be avoided.
- Rock breakers are proposed to be used for breaking over sized boulders in order to reduce the dust generation.
- Use of good quality of explosives having proper oxygen balance with regular monitoring.
- Ensuring proper stemming after charging of explosives. Proper stemming material will help in minimizing dust throw thereby lowering the spread of dust particles in ambient air pollution.
- Water spray on blasted muck pile before dozing/loading to control dust generation.

Loading & Transportation

- Water spray on haulage roads, access roads, operating benches and proper maintenance of haul roads.
- Development of green belt/plantation around mine boundary, roads and other places will be carried out to control the air pollution.
- Proper maintenance of the HEMMs & transportation vehicles will be done.
- Vehicular emissions will be kept under norms.
- Personal Protective Equipment like dust masks will be provided to all employees. ➤ Regular air quality monitoring will be carried out.
- Compliance of conditions laid by MoEF&CC and TNPCB to minimize environmental impacts

2.8.2 NOISE MANAGEMENT

Drilling

- Drilling with sharp drill bits to achieve optimum drilling performance and to reduce noise generation at source will be adopted.
- Personal protective equipments i.e. earplug in drilling & in high noise area shall be used.

Blasting

- As blasting will be done in accordance with standards prescribed by DGMS for controlled blasting; therefore, ground vibrations will not affect the structures in the vicinity of mine area.
- Explosives charge per hole and per delay will be maintained as per DGMS guidelines.
- Blasting will be carried out by use of non-electric detonators (NONEL) system and the impacts of noise generated due to blasting are momentary.
- Vibrations and noise generated by blasting will be monitored regularly

Transportation

- Adequate silencers in HEMMs will be provided to reduce generation of noise.
- Proper and regular maintenance, oiling and greasing of machines at regular intervals will be done to reduce generation of noise.
- All HEMMs will be equipped with acoustic a/c closed cabins for operators.
- The workers employed at HEMMs will be provided with protective equipment, earmuffs and earplugs as protective measures from the high noise level generated at the mine site and wherever required.
- Development of green belt & plantation around the mining activity and other areas, will be carried out.
- Regular monitoring of noise will be carried out.

2.8.3 WATER MANAGEMENT

Waste Water

Septic Tanks and soak pits will be provided for the disposal of effluent generated from mine office.

Surface Run-off

- Garland drains are proposed to be constructed around the temporary overburden soil dump to channelize the runoff water from dumps and also around the active pit to restrict rainy water from entering in to the working pit.
- Rain water falling directly into the mine pits will be stored and used for plantation & dust suppression.
- Regular monitoring of water quality will be carried out

GREENBELT/ PLANTATION

The mine lease area is devoid of major plantation. Shrubs and bushes are majorly found within the lease area. The proponent has planned to develop green belt in an area of 0.05.0 Ha. Trees like Pungai, Vagai, Vembu, Manjal konrai, Naval, Puvarasu, etc., will be planted around the mine lease area. As per SEAC norms, PP have to plant 1000 Saplings per Ha. The safety zone, covering an area of 0.05.5 hectares, will be maintained as a green belt and planted with local species As per SEAC norms, PP have to plant 1000 Saplings per Ha. The safety zone, covering an area of 0.05.5 hectares, will be maintained as a green belt and planted with local species

Plantation within Safety Zone (i.e. 0.05.5 Ha) – 55 nos

2.9 ASSESSMENT OF NEW & TESTED TECHNOLOGY FOR THE RISK OF TECHNOLOGICAL FAILURE:

From the nature and extent of the deposit, the reserves and the quality have been proved with adequate degree of reliability. Considering the type of mineralization, opencast mechanized method is the most feasible method for mining in the proposed mine lease. It is also a matter of fact that the mining machineries are upgrading with time and therefore the project proponent would act fast to adopt more advanced equipment and automation for safe and environment friendly mining technology in the years to come.

2.10 VEHICULAR TRAFFIC DENSITY

The proposed quarry is located in Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State. The final product from the quarry will be transported through Naduvasal to Kavulpalayam Village road located at a distance of 431 m in western side of the project. Traffic density study was carried out in

Naduvasal to Kavulpalayam Village Road. The details of transport route from the quarry shown below:



Figure 2.14 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 six existing quarries and six proposed quarries including this proposal. The final product from this quarry will be transported through Naduvasal to Kavulpalayam Village road – 431 m – W.

Methodology

Vehicle Count

The vehicles passing through the road (in both ways) were counted separately for 24 hours at the one elected location from 06.00 hrs to 06.00 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 2.15 Mineral Transportation

Production Per day in tons			
Quarry	Quarry Name	Total Mineral in tons per day	No. of Lorry Load per day
P1 (Proposed)	M/s. RRM Transport	270	27
P2 (Proposed)	M/s. Sri Rajakaliamman Mines and Minerals	176	18
P3 (Proposed)	M/s.Kavery stones crusher	413	21

P4(Proposed)	M/s. Perambalur Quality Minerals	676	34
P5(Proposed)	M/s. GKP Transports	155	16
P6(Proposed)	M/s.C.Kamarajrajashree Mines and Minerals	138	14
Total		1828	130

Since the existing quarries (6 Nos.) are already integrated into the current traffic flow, the incremental traffic volume has been calculated considering only the proposed quarries. Accordingly, the proposed projects are expected to generate 130 trips per day.

Table 2.16 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
Naduvasal to Kavulpalayam Village road	238	49	287	1500

Table 2.17 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
Naduvasal to Kavulpalayam Village road	238	0.15	49	0.03	0.18	A* Free Flow

2.10.1 Infrastructure Requirement

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

2.10.2 Project Cost

The total project cost of this Rough stone Quarry is Rs. 284.47 Lakhs (including EMP & CER cost).

CHAPTER 3

DESCRIPTION OF THE ENVIRONMENT

3.1. STUDY AREA, PERIOD COMPONENTS AND METHODOLOGY

The project area is located in Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State over an extent of 1.00.0 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.

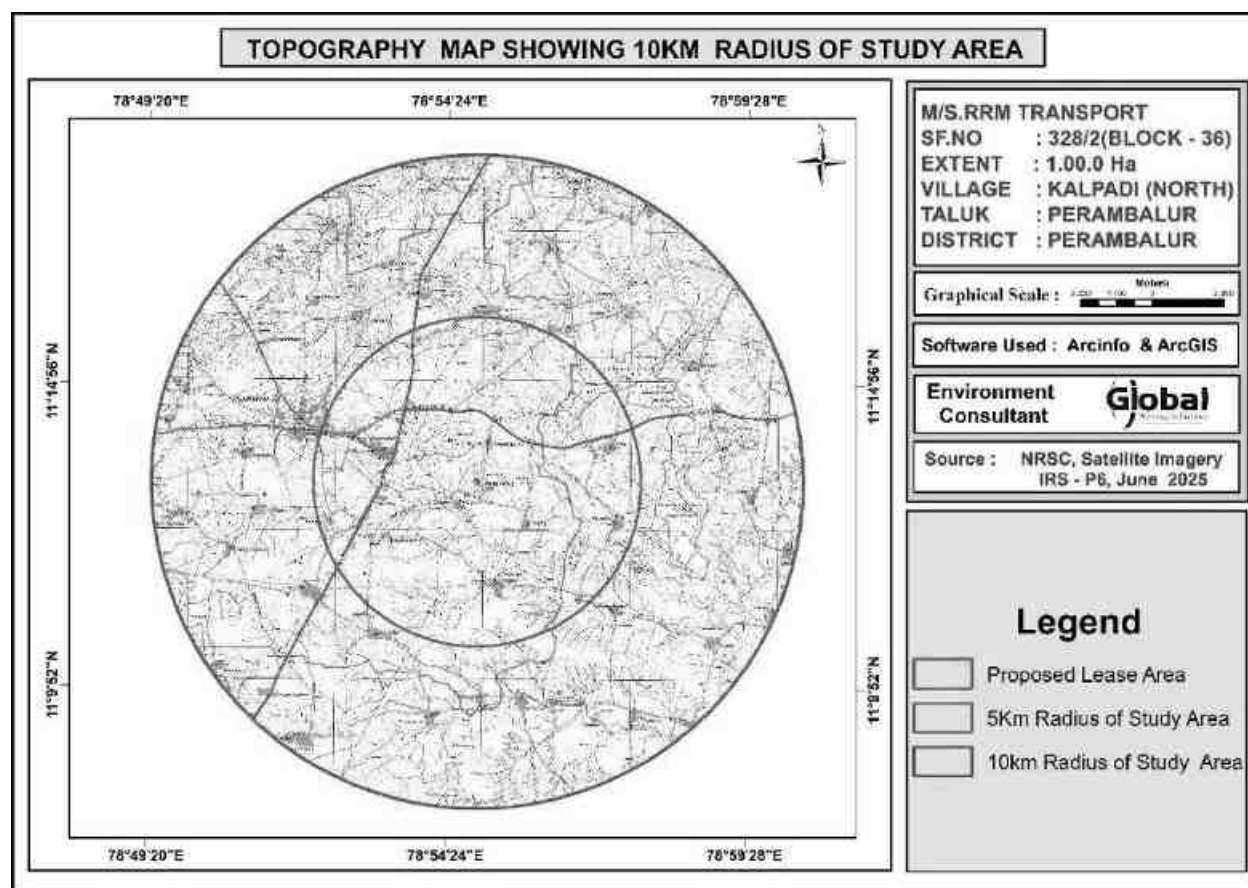
ENVIRONMENTAL SETTING OF THE STUDY AREA

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 10km radius
2	Areas which are important or sensitive for ecological reasons	

A	Wetlands, water courses or other water bodies,	Water bodies	Distance	Direction
		Kottarai Dam	8.99 Km	SE
		Kottarai stream	0.80 Km	SW
		K.Eriyur lake	1.60 km	SE
		Avvaiyar nagar village pond	1.98 km	NW
		Thuraimangalam lake	2.0 km	NE
		Vellathangiyamman pond	5.41 km	NW
		Sirugudal lake	8.00 km	SW
B	Coastal zone, biospheres,	Nil within 10km radius		
C	Mountains, forests	Chittali R.F – 3.00 km (NE), Kunnam R.F – 5.50 km (SE)		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 15km radius		
4	Inland, coastal, marine or underground waters	Nil within 15km radius		
5	State, National boundaries	Nil within 15km radius		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 15km radius		
7	Defense installations	Nil within 15km radius		
8	Densely populated or built-up area	Densely Populated (NW)	Perambalur-3.42km	
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Densely Populated (NW)	Perambalur-3.42km	
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	Environment al 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, SO ₂ , NO ₂ , CO & PAH	twice a week (24 hourly)	6
4	Noise	Equivalent noise levels in Leq in dB (A)	Once in a season (day & night time)	6
5	Water	Parameters as per IS 10500 - 2012	Once in a season	
A	Ground Water & SW	Parameters As per IS 2720/USDA	Once in a season	6 +2(sw)
6	Soil	Parameters As per IS 2720/USDA	Once in a season	6
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 300M 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 structures within a 300 m radius from the project site. The PP has obtained a letter from Village Administrative Office (VAO), Kalpadi (North) stating that there are no structures situated within 300 m radius.

As per the field study, only two crusher plant were observed within the 300m radius of the project site. Hence there are no habitation within 300m radius of the project site. Also there are no water bodies within 500 m radius of the project site.

FIG 3.2 GOOGLE MAP SHOWING 100M INTERVAL FOR 300M RADIUS FROM THE LEASE AREA

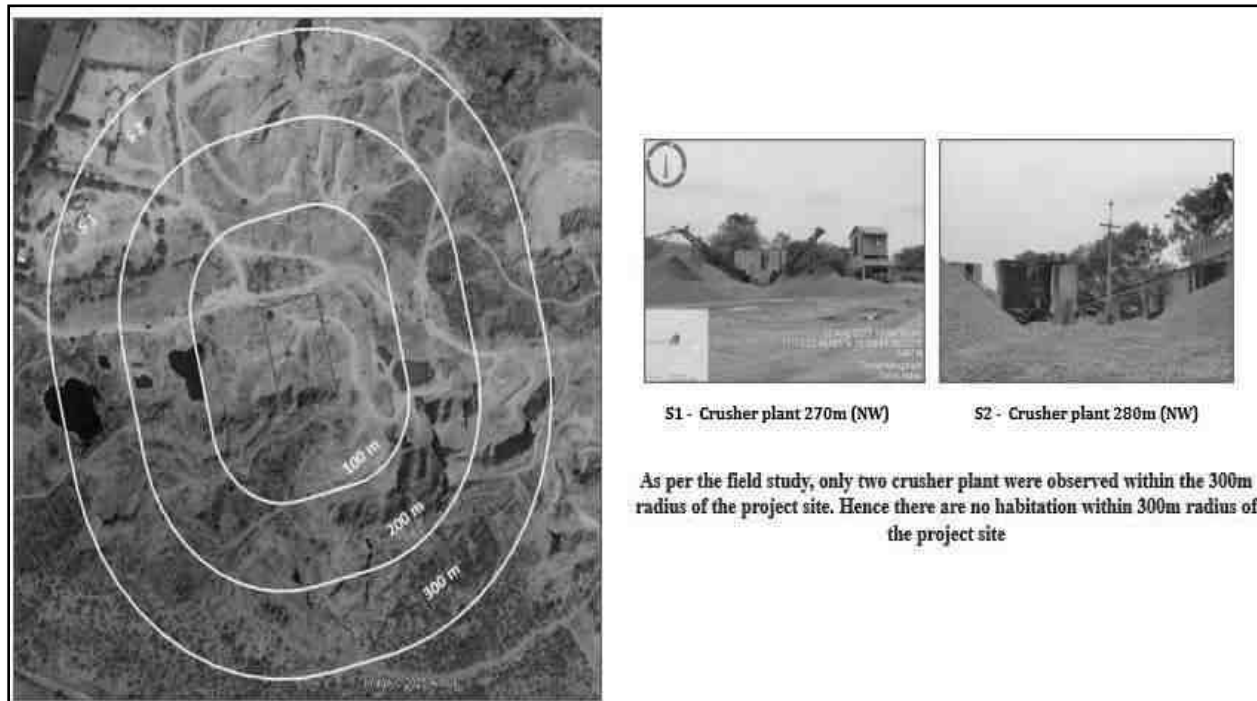
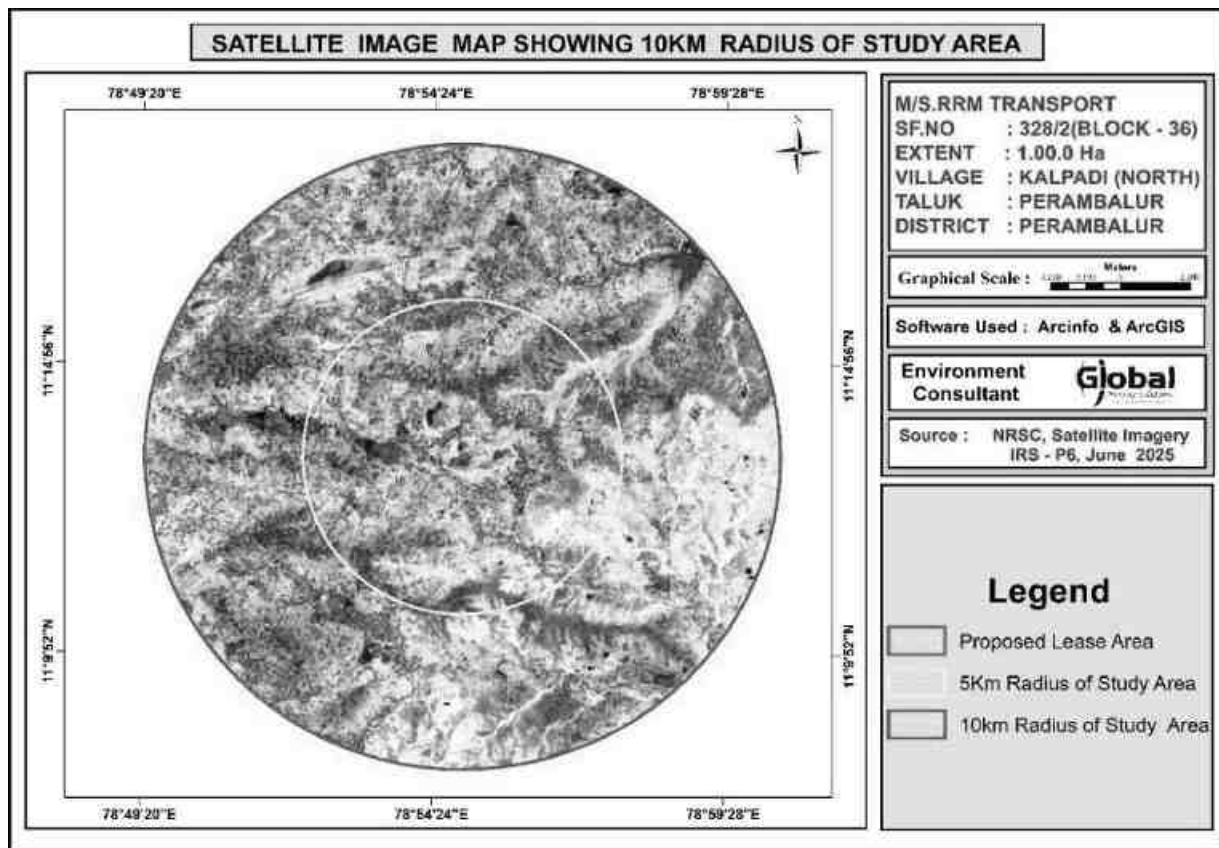


FIGURE - 3.3 SATELLITE MAP OF THE PROJECT AREA (10 KM RADIUS)



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

The Average Annual Rainfall data received from 2019 to 2023 are given below.

Table 3.2 - Rainfall data					
Annual 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

Relative Humidity

High relative humidity between 46.02% and 73.37% prevail throughout the year. Relative humidity is maximum in the morning and minimum in the evening. However, the coastal areas will be comparatively more humid.

Seismic information

The study area falls in Zone II, which comes under the least active zone. The seismic map of India is given as Fig 3.5.

FIG 3.4 SEISMIC MAP OF INDIA

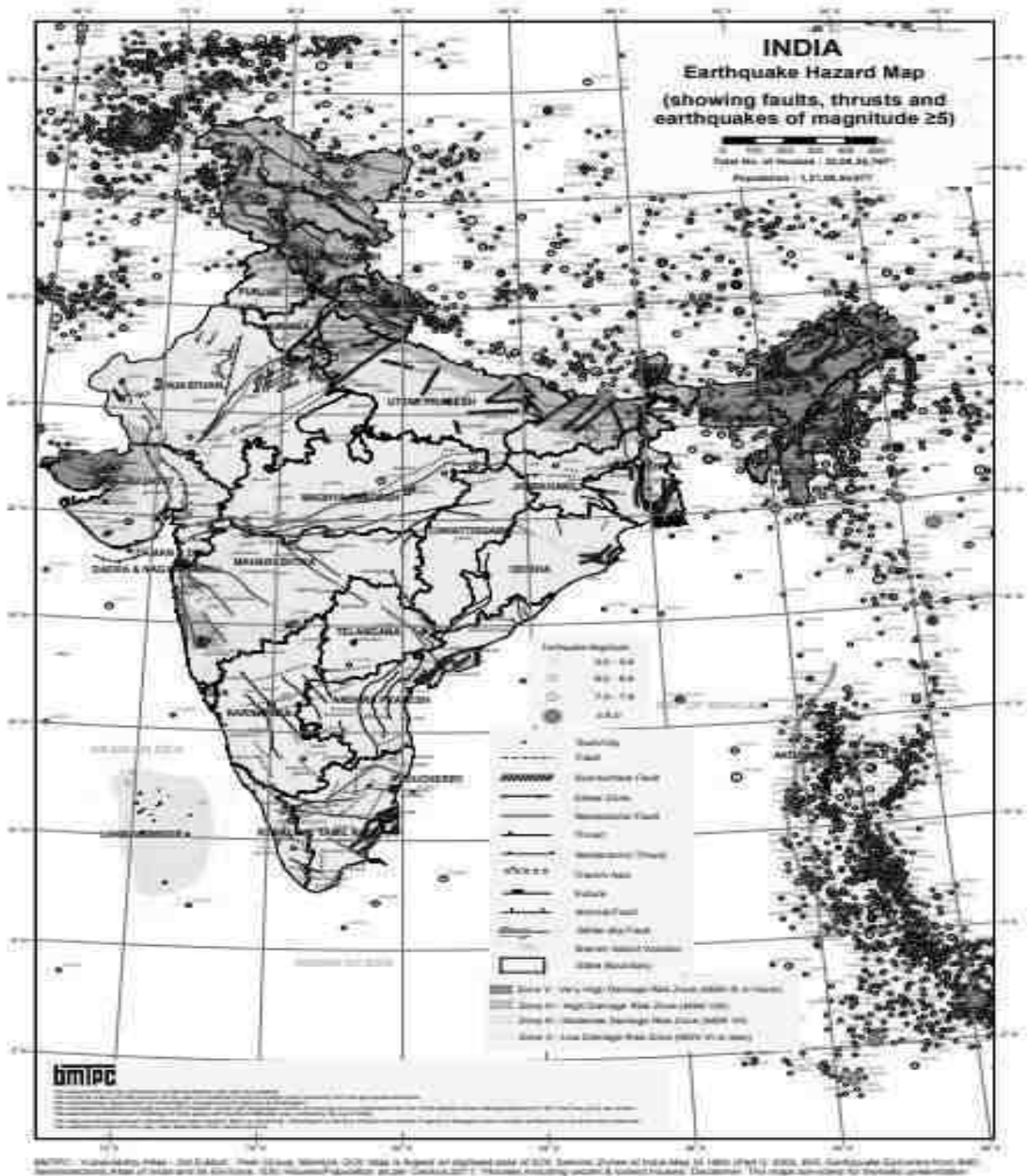
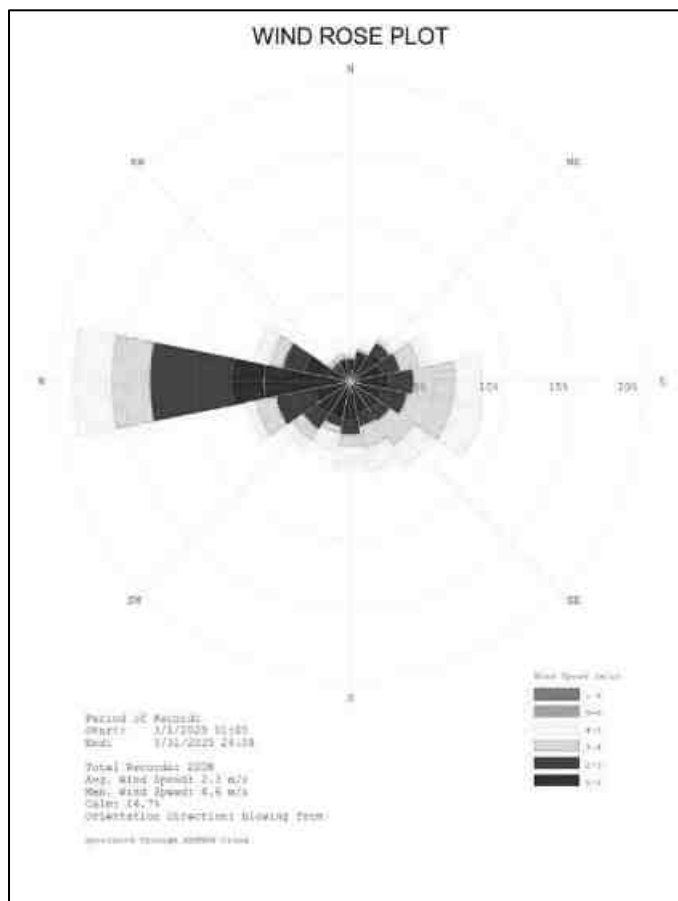


FIG 3.5 WIND ROSE PLOT DURING MARCH TO MAY 2025



Meteorological data of the project area

S.NO	Parameters	March to May 2025	
1.	Temperature ($^{\circ}\text{C}$)	Min	13.5
		Max.	38.7
		Avg	26.0
2.	Relative Humidity (%)	Min	59
		Max	82
		Avg	71
3.	Wind Speed (km/h)	Min	0
		Max	4.6
		Avg	2.3
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 6 locations. One in the core zone and remaining five 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.

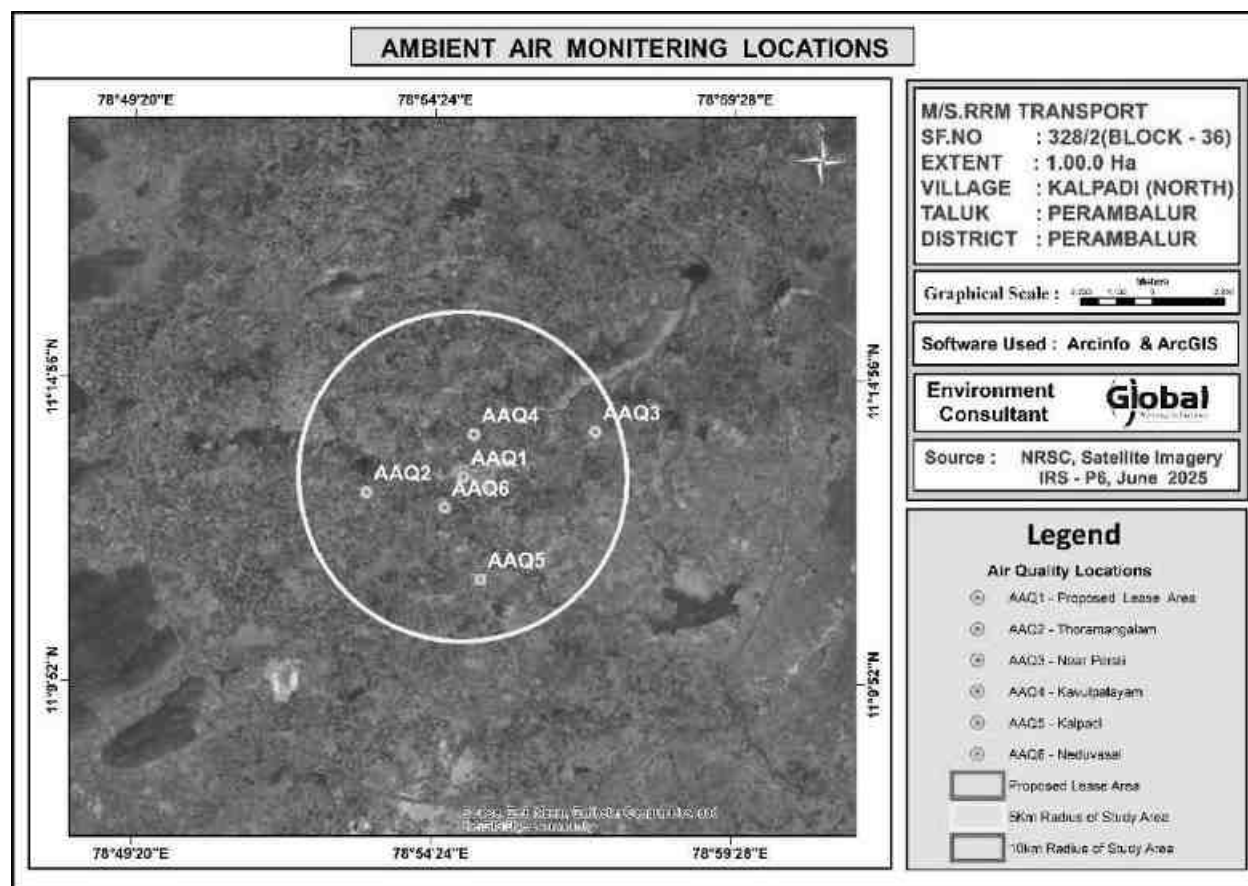
The levels of Respirable Particulate Matter (PM₁₀), Fine Particulates (PM_{2.5}), Sulphur Dioxide (SO₂) and Oxides of Nitrogen (NO_x) were monitored for establishing the baseline status. PM₁₀ were sampled with the help of Respirable Dust Samplers on filter papers and SO₂ & NO_x were absorbed in the respective absorption media in the impingers attached to RD samplers and analyzed Spectro-photometrically. PM_{2.5} was monitored with the help of Fine Particulate Samplers. The monitoring locations for ambient air study are given in Table – 3.4 and Figure 3.6 below.

Table 3.3 Methodology for Air Quality Monitoring

1.	Monitoring Period	Summer (March 2025 – May 2025)
2.	Monitoring Location	The monitoring locations for ambient air study is given in Table – 3.4 and Figure 3.7.
3.	Selection Criteria	The monitoring location is selected based on terrain & wind direction. Locations were chosen in upwind, downwind and crosswind
Methodology		
4.	A. Sampling	(IS-5182:Part 1:2018)
	B. Analysis	
	Parameters	Protocol
5.	Particulate Matter (PM ₁₀)	Gravimetric (IS 5182: Part 23:2017)
	Particulate Matter (PM _{2.5})	Gravimetric (IS 5182: Part 24:2019)
	Sulphur Dioxide	Colorimetric (West & Gaeke Method) (IS 5182: Part 02: 2017)
	Nitrogen Dioxide	Colorimetric (Modified Jacob & Hocheiser Method) (IS 5182: Part 06:2017)
	Carbon Monoxide	CO Monitor
	Monitoring Frequency	2 days in a week, 4 weeks in a month for 3 months in a season.

Table 3.4: Details Of Ambient Air Quality Monitoring Locations				
S. No.	Station Code	Locations	Distance & Direction	Coordinates
1	AAQ 1	Project site core zone	-	11°13'19.84"N 78°54'54.62"E
2	AAQ 2	Thoramangalam village	2.88 km W	11°13'2.82"N 78°53'17.32"E
3	AAQ 3	Near Perali village	4.32 km NE	11°14'3.56"N 78°57'8.70"E
4	AAQ 4	Kavulpalayam village	1.36 km N	11°14'0.21"N 78°55'5.40"E
5	AAQ 5	Kalpadi village	3.13 km S	11°11'34.74"N 78°55'12.96"E
6	AAQ6	Neduvasal village	1.00 km SW	11°12'46.98"N 78°54'36.18"E

FIG 3.6 BASE MAP OF AMBIENT AIR MONITORING LOCATIONS



The concentrations of various air pollutants at the 6 locations are given below. For all the components in the table, the unit are in $\mu\text{g}/\text{m}^3$.

Table.3.5 Results of Air sampling Analysis in 6 locations

Station ID	Min	Max	Avg.
Particulate matter PM-2.5 ($\mu\text{g}/\text{m}^3$)			
AAQ-1	26.8	37.6	32.2
AAQ-2	23.3	29.5	26.4
AAQ-3	21.9	27.6	24.7
AAQ-4	22.7	30.3	26.5
AAQ-5	20.2	25.6	22.9
AAQ-6	21.9	28.0	24.9
CPCB NAAQS 2009 for PM_{2.5} - 60 $\mu\text{g}/\text{m}^3$			
Particulate matter PM-10 ($\mu\text{g}/\text{m}^3$)			
AAQ-1	56.8	79.4	68.1
AAQ-2	49.6	62.4	56
AAQ-3	48.6	59.4	54
AAQ-4	50.7	62.1	56.4
AAQ-5	43.9	54.2	49.05
AAQ-6	47.2	60.1	53.65
CPCB NAAQS 2009 for PM₁₀ - 100 $\mu\text{g}/\text{m}^3$			
Sulphur Di-oxide as SO₂ ($\mu\text{g}/\text{m}^3$)			
AAQ-1	5.7	8.2	6.95
AAQ-2	5.9	8.3	7.1
AAQ-3	6.7	8.9	7.8
AAQ-4	5.1	7.4	6.25
AAQ-5	4.4	7.0	5.7
AAQ-6	4.6	6.3	5.45
CPCB NAAQS 2009 for SO₂ - 80 $\mu\text{g}/\text{m}^3$			
Oxide of Nitrogen as NO₂ ($\mu\text{g}/\text{m}^3$)			
AAQ-1	9.2	11.4	10.3
AAQ-2	7.9	10.1	9
AAQ-3	8.7	11.3	10
AAQ-4	8.1	10.6	9.35
AAQ-5	7.3	9.6	8.45
AAQ-6	6.7	9.3	8
CPCB NAAQS 2009 for NO₂ - 80 $\mu\text{g}/\text{m}^3$			

The results are summarized in graph and given as below Fig. 3.6

FIG 3.7 AMBIENT AIR QUALITY DATA A1 - MINE LEASE AREA

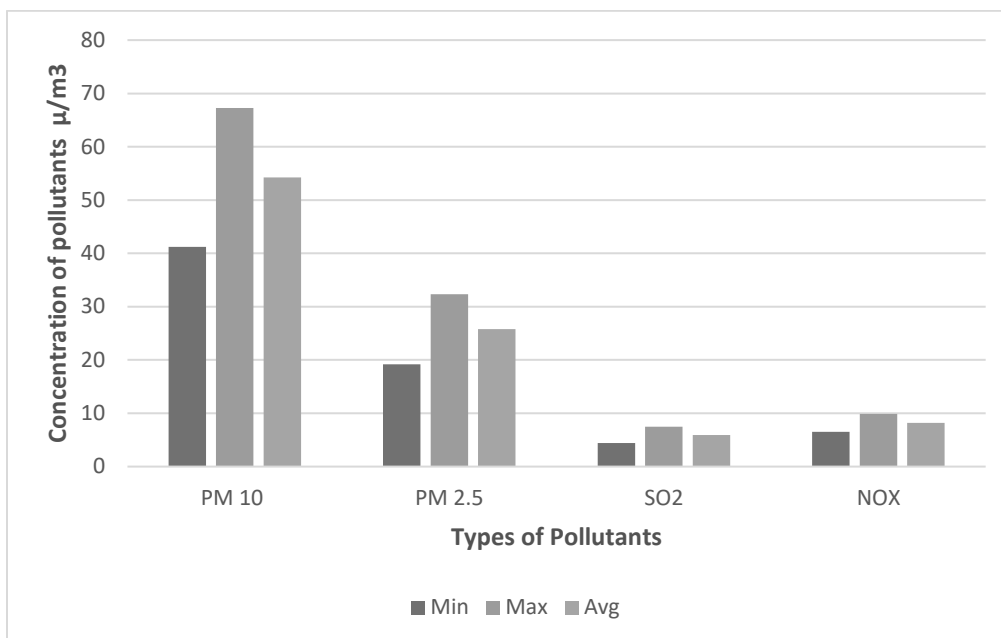


FIG 3.8 AMBIENT AIR QUALITY DATA A2 - THORAMANGALAM VILLAGE

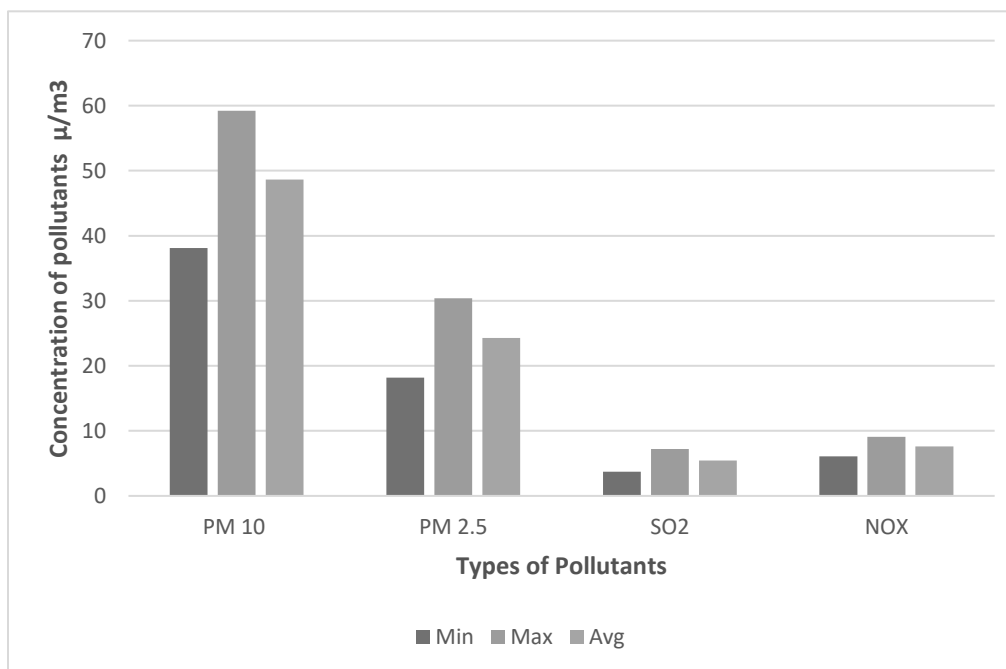


FIG 3.9 AMBIENT AIR QUALITY DATA A3 - NEAR PERALI VILLAGE

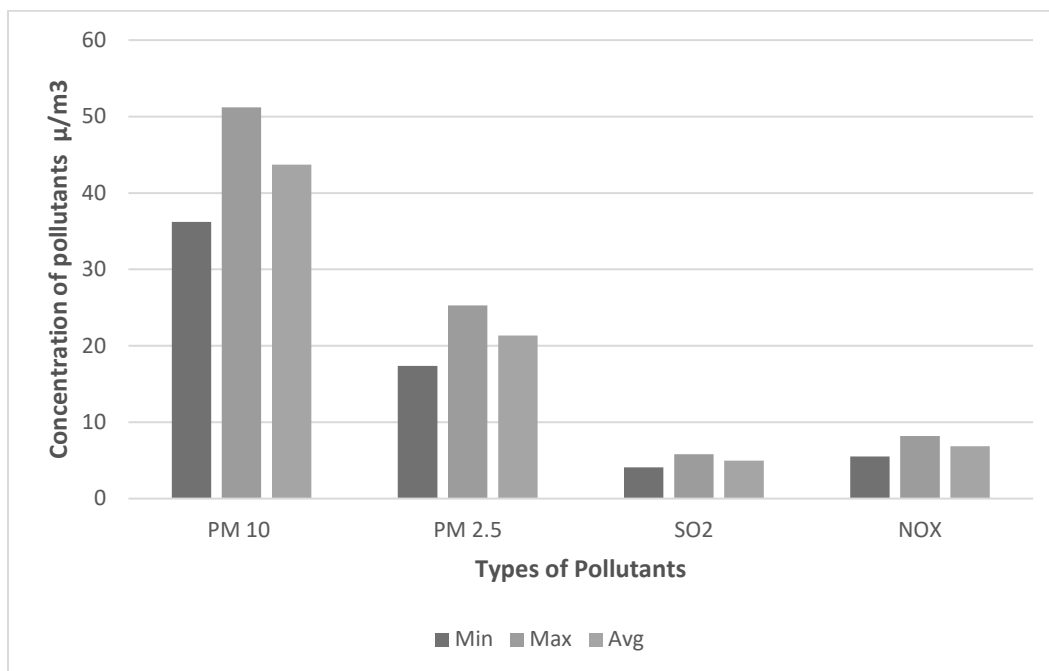


FIG 3.10 AAQ DATA A4 - KVULPALAYAM VILLAGE

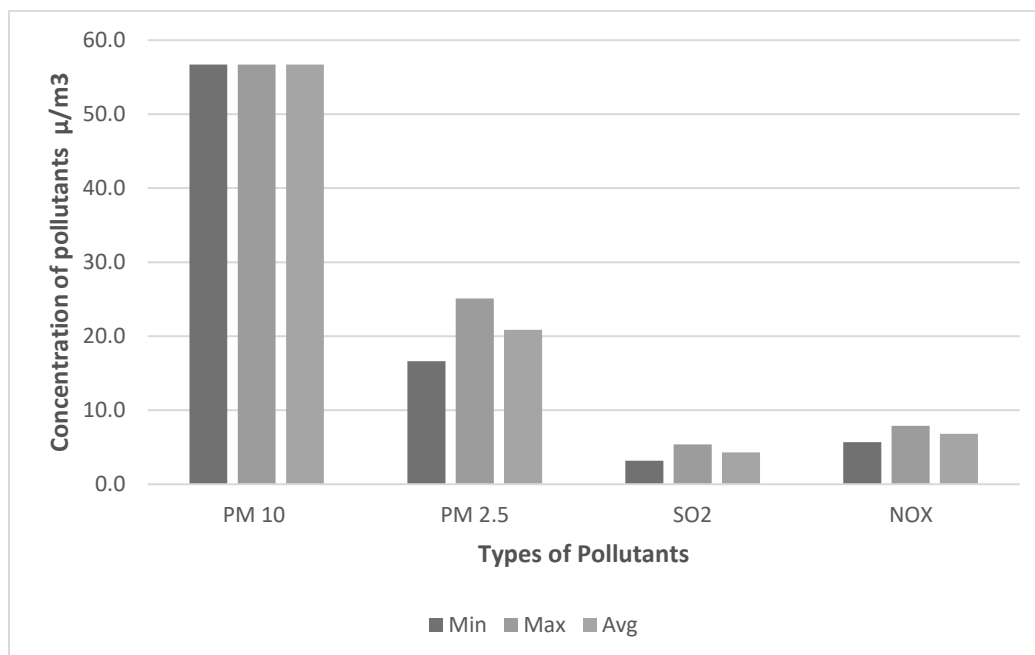


FIG 3.11 AMBIENT AIR QUALITY DATA A5 - KALPADI VILLAGE

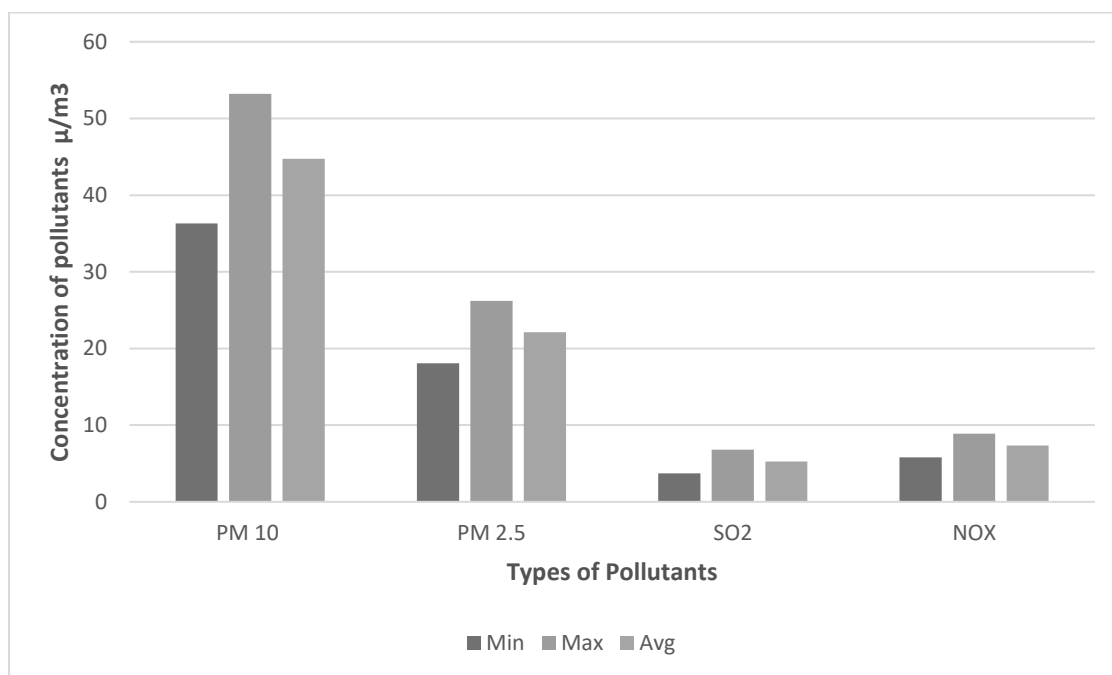
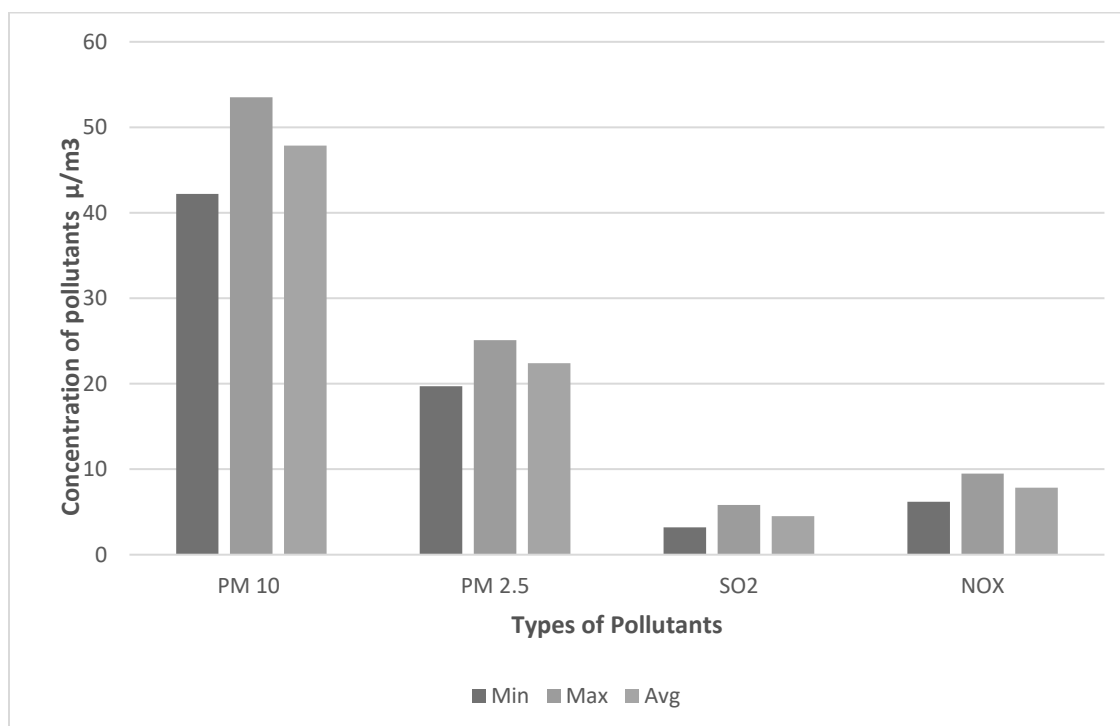


FIG 3.12 AMBIENT AIR QUALITY DATA A6 - NEDUVASAL VILLAGE



Discussion

From the table it is seen that, in core zone, the PM10 values were in the range of 56.80 – 79.40 µg/m³. PM2.5 values in the range of 26.80 – 37.60 µg/m³. SO₂ levels were ranging from 5.70 – 8.20 µg/m³ and NO₂ levels were ranging from 9.20 – 11.40 µg/m³. In buffer zone, the PM10 values were in the range of 43.90 – 62.40 µg/m³. PM2.5 values were in the range of 20.20 – 30.30 µg/m³. SO₂ levels were ranging from 4.40 – 8.90 µg/m³. NO₂ levels were ranging from 6.70 – 11.30 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 except for So₂. The main contributing factor is the presence of another existing Quarries and crusher near 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

There is Kottarai stream is located at a distance of 0.80 km in Southwest direction, Avvaiyar nagar village pond – 1.98 km (NW), Thuraimangalam lake -2.80 km NE of lease area. The rainfall over the area is moderate, the rainwater storage in open wells, trenches is in practice over the area and the stored water acts as source of freshwater. The prevailing status of surface water quality has been assessed during the study period. Surface water quality locations and results are provided in Table 3-6 and Figure 3.15.

Ground Water

The rainfall is the main source for the availability of water both in surface and sub-surface. The quantum of rainfall varies every year depending upon the monsoon.

However, the extraction of surface and sub-surface water is increasing year by year. It leads to environmental impact on the water sources like depletion of water level, deterioration of water quality. It makes the demand for the quantification of available water and also its quality for various purposes like agriculture, industries, drinking and domestic purposes. Total six (06) ground water monitoring locations were identified for assessment in different villages around the project site based on the usage of sub surface water by the settlements/ villages in the study area. The groundwater results are compared with the acceptable and permissible water quality standards as per IS: 10500 (2012) for drinking water. Groundwater quality monitoring locations and results are given in Table 3.5 and Figure 3.11.

Sampling Locations

six (6) ground water and two (2) surface 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 3.12.

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
Ground Water			
1	GW1	Project site core zone	11°13'19.84"N 78°54'54.62"E
2	GW2	Thoramangalam village	11°13'2.82"N 78°53'17.32"E
3	GW3	Near Perali village	11°14'3.56"N 78°57'8.70"E

4	GW4	Kvulpalayam village	11°14'0.21"N 78°55'5.40"E
5	GW5	Kalpadi village	11°11'34.74"N 78°55'12.96"E
6	GW6	Neduvasal village	11°12'46.98"N 78°54'36.18"E
Surface water sampling locations			
1	SW1	K.Eraiyur lake	11°12'53.53"N & 78°55'38.58"E
2	SW2	Avvayair Pond	11°13'0.69"N & 78°54'16.30"E
3	SW3	Thuraimangalam Lake	11°12'54.48"N & 78°54'41.51"E

FIG 3.13 BASE MAP OF GROUND WATER SAMPLING LOCATIONS

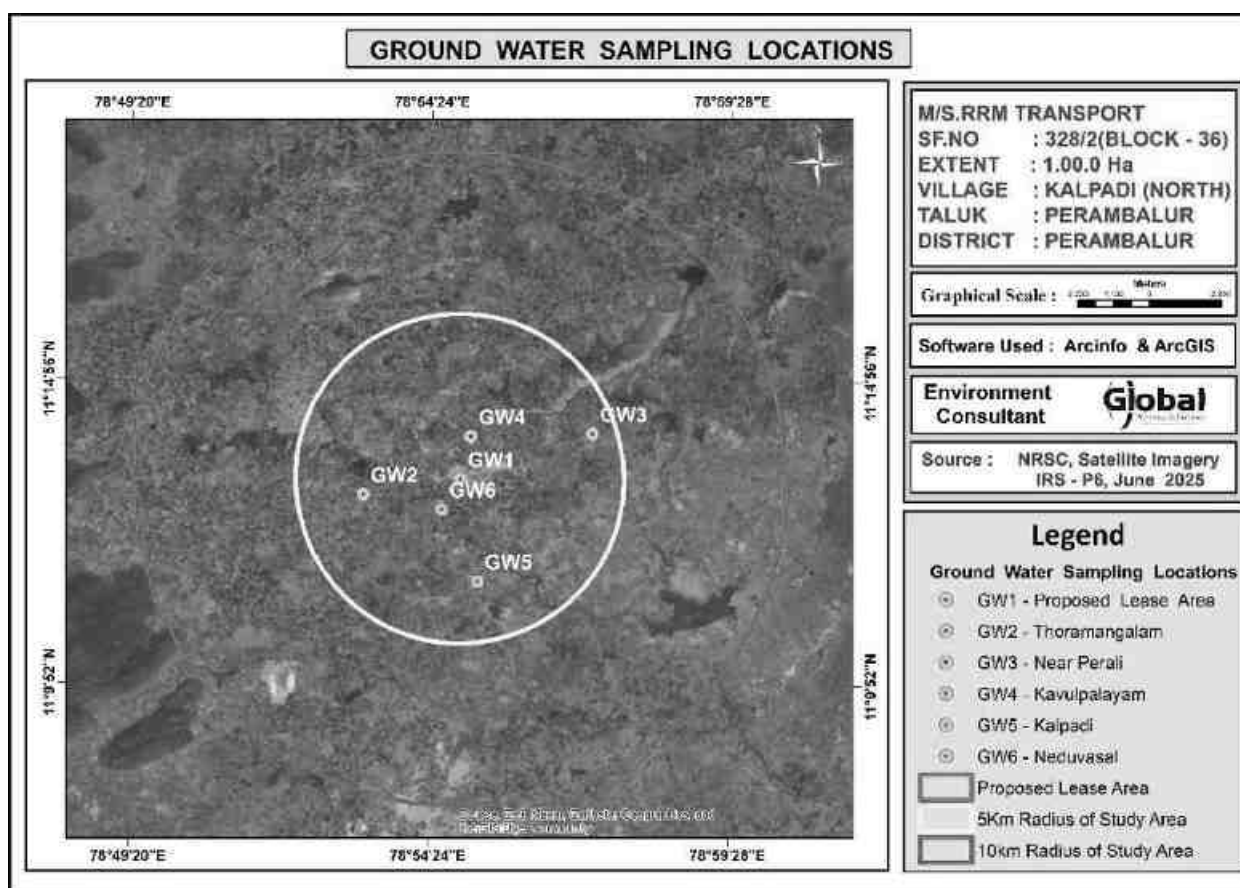


FIG 3.14 BASE MAP OF SURFACE WATER SAMPLING LOCATIONS

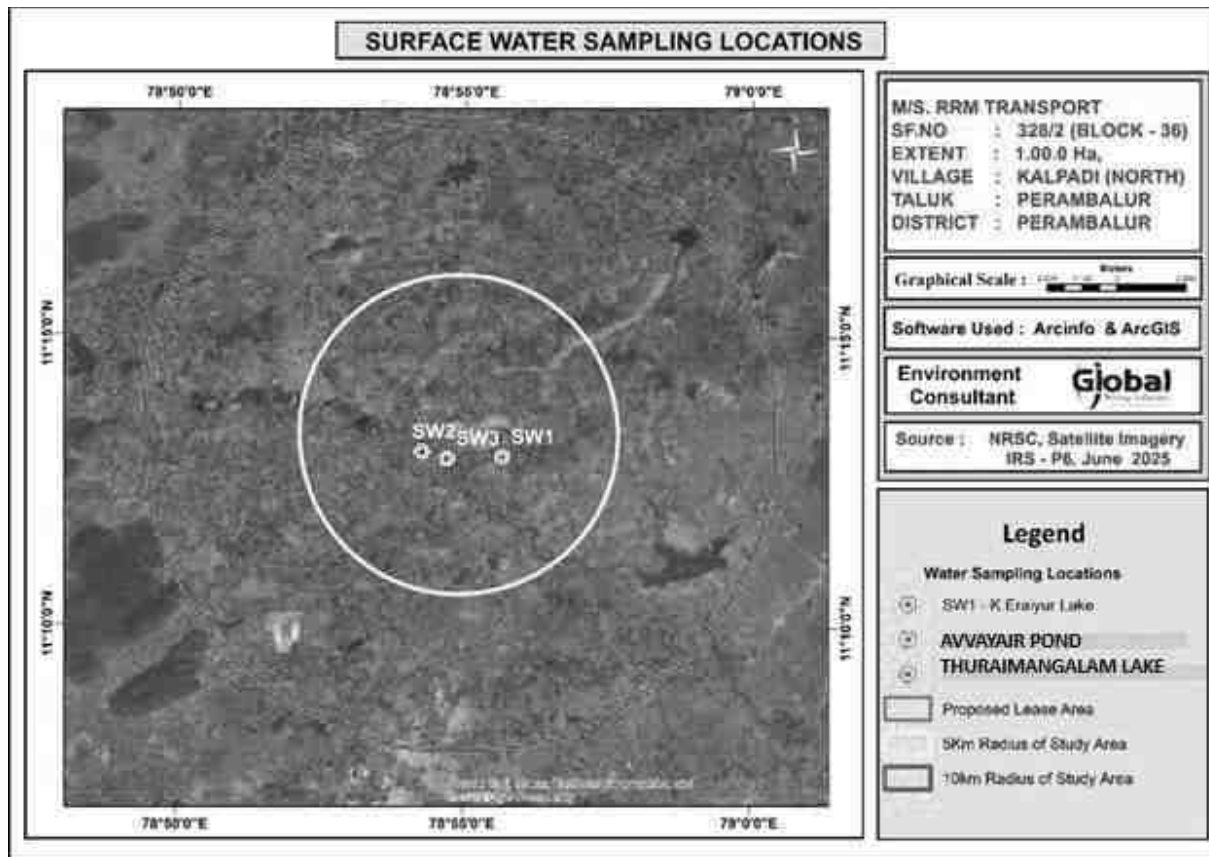


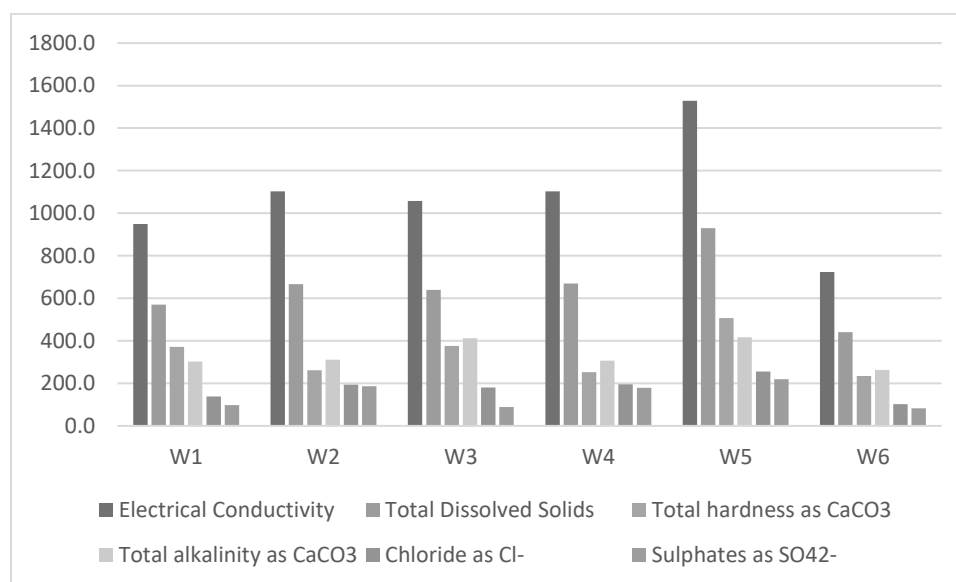
Table 3.7 Surface Water Analysis Results

S.No	Parameter	Unit	SW1 During baseline period there is no water in the lake	SW2	SW3	Surface water standard s (IS 2296 Class-A)
1	Odour	-	-	Agreeable	Agreeable	-
2	Turbidity	NTU	-	<1	<1.0	1
3	pH at 25 °C	-	-	7.98	7.58	6.5-8.5
4	Electrical Conductivity	µs/cm	-	632.5	890.5	-
5	Total Dissolved Solids	mg/l	-	380	536	500
6	Total hardness as CaCO3	mg/l	-	182	210	-
7	Calcium as Ca	mg/l	-	45.2	34.6	300
8	Magnesium as Mg	mg/l	-	16.6	29.6	-
9	Calcium as CaCO3	mg/l	-	113	87	-
10	Magnesium as CaCO3	mg/l	-	69.0	124	-
11	Total alkalinity as CaCO3	mg/l	-	160	178	-
12	Chloride as Cl-	mg/l	-	138	186	-
13	Free Residual chlorine as Cl-	mg/l	-	BDL(D.L-0.2)	BDL(D.L-0.2)	250
14	Sulphates as SO42-	mg/l	-	54.6	156	400
15	Iron as Fe	mg/l	-	0.11	0.16	1.0
16	Nitrate as NO3	mg/l	-	BDL(D.L-1.0)	2.63	20
17	Fluoride as F	mg/l	-	0.24	0.52	1.5
18	Manganese as Mn	mg/l	-	BDL(D.L-0.05)	BDL(D.L-0.05)	0.5
19	COD	mg/l	-	BDL	BDL	-
20	BOD	mg/l	-	BDL	BDL	-
21	TSS	mg/l	-	12	8	-
22	DO	mg/l	-	6.3	6.1	-

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

Table 3.8 Results of Ground Water sampling Analysis in 6 locations							Specification/ Limit (As per IS:10500: 2012)	
	W1	W2	W3	W4	W5	W6	Desirable	Permissible
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1.0	<1.0	<1	<1	<1	<1	<5.0
pH at 25 °C	7.84	7.76	7.35	7.94	7.68	7.95	6.5 - 8.5	No Relaxation
Electrical Conductivity	529.5	1672	1954	2078	1286	2025	-	-
Total Dissolved Solids	318	1005	1180	1250	772	1220	500	2000
Total hardness as CaCO3	176	360	392	425	236	390	200	600
Calcium as Ca	42.4	64.8	84.0	102	62.4	86	75	200
Magnesium as Mg	16.8	47.5	43.7	41.0	19.2	42.0	30	100
Calcium as CaCO3	106	162	210	254	156	215	-	-
Magnesium as CaCO3	70.0	198	182	171	80.0	175	-	-
Total alkalinity as CaCO3	154	326	382	384	259	354	200	600
Chloride as Cl-	70.5	365	397	408	272	370	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)	0.2	1
Sulphates as SO42-	52.5	278	348	360	212	345	200	400
Iron as Fe	0.06	0.12	0.09	0.15	0.07	0.06	0.3	No Relaxation
Nitrate as NO3	BDL(D.L-1.0)	2.87	5.24	5.65	4.79	6.33	45	No Relaxation
Fluoride as F	0.16	0.48	0.59	0.62	0.44	0.63	1.0	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)	0.1	0.3

FIG 3.15 VALUES OF FEW COMMON PARAMETERS IN WATER ANALYSIS



Discussion

Surface Water

The pH varied from 7.58 to 7.98 while turbidity found to be less than 1, which is within the permissible limit of 5.0. Total Dissolved Solids varied from 380 to 536 mg/l. Chloride varied between 138 mg/l, 186 mg/l. Nitrates varied from 2.63 mg/l, while sulphates varied from 54.6 to 156 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 7.35 – 7.95, Chlorides Ranges From 70.50 - 408 mg/l, Sulphates value found to be between 52.50 – 360 mg/l, Fluoride value varies from 0.16 – 0.63 mg/l, Total Hardness varies from 176 – 425 mg/l, and Total dissolved solid 318 – 1250 mg/l. The ground water has

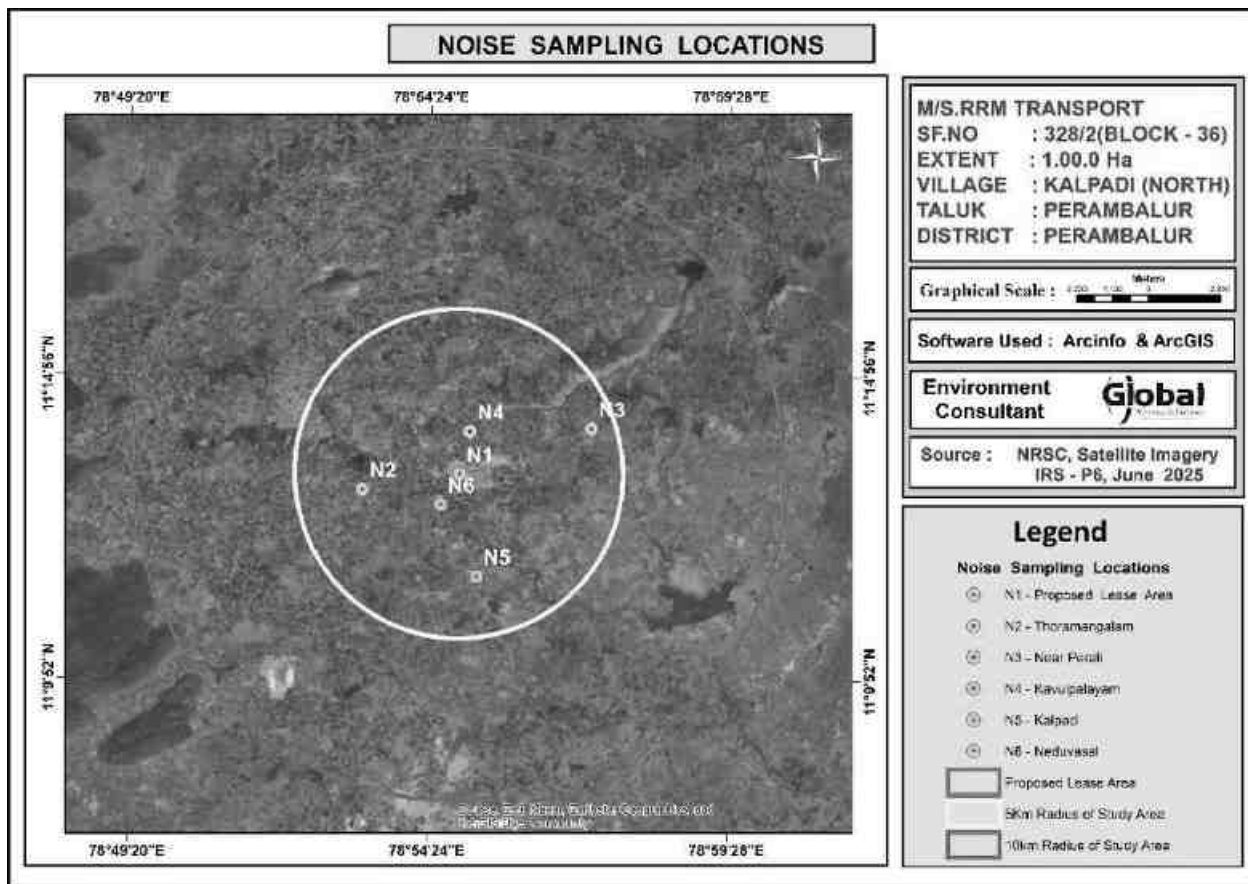
been analyzed as per IS10500: 2012 and found to be suitable for drinking purpose. So the results of chemical and bacteriological analysis of water samples are classified under good class for drinking purpose with respect to total dissolved solids. Total hardness of the samples ranged from soft to moderately 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

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 3.16

FIG 3.16 BASE MAP OF NOISE MONITORING LOCATIONS



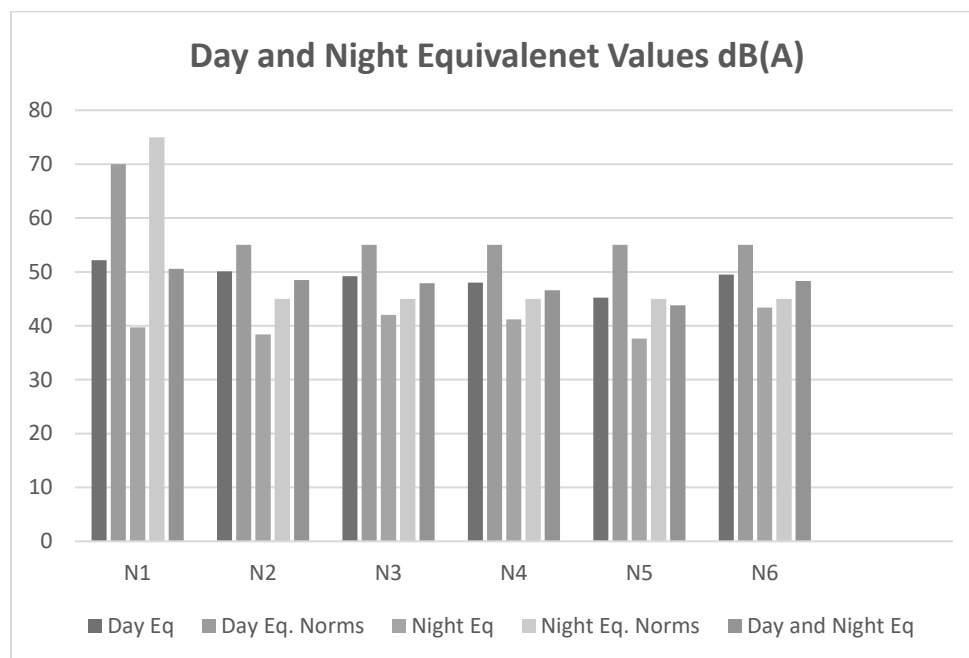
The results are given in Table below.

Table 3.9 Noise monitoring results

S. No	Location	Day equivalent	Night equivalent	Day equivalent limits by CPCB	Night equivalent limits by CPCB
1	Project site core zone	52.2	39.7	75	70
2	Thoramangalam village	50.1	38.4		
3	Near Perali village	49.2	42.0		
4	Kvulpalayam village	48.0	41.2		
5	Kalpadi village	45.2	37.6		
6	Neduvasal village	49.5	43.4		

The results are plotted as below.

FIG 3.17 DAY AND NIGHT EQUIVALENT VALUES IN 6 LOCATIONS



Discussion

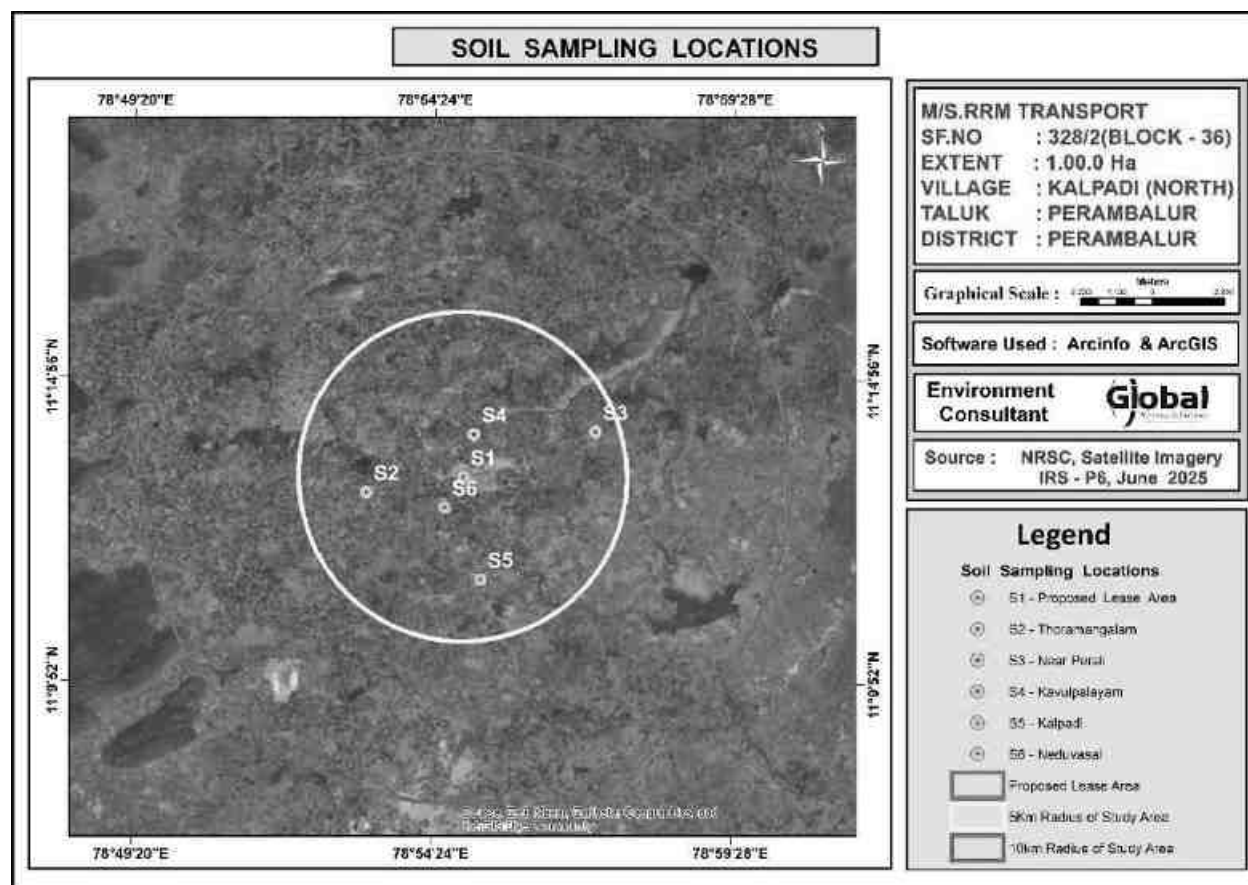
From the table it is observed that the day Equivalent Noise (Leq-d) level were ranging from 45.20 to 52.20 dB(A) and Night Equivalent Noise (Leq-n) level were ranging from 37.60 to 43.40 dB(A). Day and Night Equivalent Noise (Leq-n) level were ranging from 43.80 to 50.60 dB (A). While comparing with 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 samples have been collected from the mine lease area and 6 other locations from project site, Thoramangalam village, Near Perali village, Kvulpalayam, Pudukkanali village, Kalpadi village and Neduvasal village. The locations are shown in figure below.

FIG 3.18 BASE MAP OF SOIL SAMPLING LOCATIONS



The results are summarized in the table below.

Table 3.10 Results of Soil Sample Analysis								
S. No	Parameter	Unit	S1	S2	S3	S4	S5	S6
1	pH at 25 °C	-	7.28	8.05	7.59	7.28	7.36	7.59
2	Electrical Conductivity	µmhos/cm	172.5	274.6	190.5	245.6	172.3	284.5

3	Dry matter content	%	95.28	95.14	96.32	89.55	97.39	92.58
4	Water Content	%	4.72	4.86	3.68	10.45	2.61	7.42
5	Organic Matter	%	0.69	0.94	0.82	1.32	0.75	0.82
6	Soil texture	-	Silty Clay loam	Silty Clay	Silty Clay	Clay	Silty Clay	Silty Clay
7	Grain Size Distribution	%	15.57	10.65	8.59	16.47	12.55	10.98
	i. Sand							
8	ii. Silt	%	45.34	44.32	42.76	38.2	42.56	46.52
9	iii. Clay	%	39.09	45.0	48.65	45.31	44.89	42.5
10	Phosphorous as P	mg/kg	1.44	1.62	1.31	1.76	1.44	1.67
11	Sodium as Na	mg/kg	305	325	346	498	530	422
12	Potassium as K	mg/kg	572	660	732	895	970	638
13	Nitrogen and Nitrogenous Compounds	mg/kg	256	405	146	208	244	306
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)
15	Porosity	%	18.6	19.4	18.20	16.9	18.5	17.9
16	Water Holding Capacity	Inches/foot	41	38	40	44	42	40

3.3.6 BIOLOGICAL ENVIRONMENT

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

Flora in the study area

An ecological survey of the study area was conducted with reference to listing of species and assessment of the existing baseline ecological (Terrestrial and Aquatic 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.

FLORISTIC COMPOSITION IN CORE ZONE

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

FLORISTIC SCENARIO IN BUFFER ZONE AREA

The present report gives the review of published secondary data and the results of field sampling conducted during **March 2025 – May 2025** and there are no forest blocks in study area. The detailed ecological assessment of the study area has been carried out and are presented in below Table. Flora is assessed based on quadratic survey to calculate phytosociological parameters like density, frequency, dominance, relative density, relative frequency, relative dominance and importance value index.

Table 3.11 Assessment of trees

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Dominance	Relative Density	Relative Frequency	Relative Dominance	IVI
1	Citrus limon	Lemon	2	2	4	0.50	50.00	1	0.28	1.80	3.85	6.07	11.72
2	Ficus benghalensis	Krishna Fig, Krishna's	5	2	4	1.25	50.00	2.5	0.07	4.50	3.85	1.52	9.87
3	Thespesia lampas	Common mallow, kattupparuthi	2	4	4	0.50	100.00	0.5	0.28	1.80	7.69	6.07	15.57
4	Musa paradisiaca	Plantain, vazhai	10	4	4	2.50	100.00	2.5	0.50	9.01	7.69	10.79	27.50
5	Azadirachta indica	Veppai,	14	4	4	3.50	100.00	3.5	0.44	12.61	7.69	9.49	29.79
6	Psidium gujava	Guava	5	2	4	1.25	50.00	2.5	0.16	4.50	3.85	3.42	11.77
7	Syzygium cumini	Nagai	3	3	4	0.75	75.00	1	0.20	2.70	5.77	4.22	12.69
8	Adina cordifolia	Manjakadambu	1	1	4	0.25	25.00	1	0.14	0.90	1.92	2.98	5.80
9	Acacia chundra		1	1	4	0.25	25.00	1	0.18	0.90	1.92	3.89	6.71
10	Erythrina indica	Mullu murungai	1	1	4	0.25	25.00	1	0.15	0.90	1.92	3.12	5.94
11	Euphorbia antiquorum	Kalli	15	4	4	3.75	100.00	3.75	0.27	13.51	7.69	5.87	27.08
12	Ailanthus excelsa	Perumaram	7	2	4	1.75	50.00	3.5	0.21	6.31	3.85	4.56	14.71
13	Pongamia pinnata	Indian beech, pungam	4	2	4	1.00	50.00	2	0.15	3.60	3.85	3.27	10.72
14	Acacia leucophloea	Velvelam	10	4	4	2.50	100.00	2.5	0.26	9.01	7.69	5.48	22.18
15	Morinda tinctorial	Nuna	4	1	4	1.00	25.00	4	0.09	3.60	1.92	1.95	7.48
16	Dalbergia sissoo	nukkam totakatti	1	1	4	0.25	25.00	1	0.20	0.90	1.92	4.22	7.04

17	Erythrina variegata	Kalyana murungai	2	1	4	0.50	25.00	2	0.10	1.80	1.92	2.07	5.79
18	Borassus flabellifer	Palmyra palm	5	2	4	1.25	50.00	2.5	0.16	4.50	3.85	3.42	11.77
19	Thespesia lampas	Common mallow,kattupparuthi	1	1	4	0.25	25.00	1	0.11	0.90	1.92	2.44	5.26
20	Lannea coromandelica	Indian Ash Tree, Moya, Wodier	9	1	4	2.25	25.00	9	0.28	8.11	1.92	6.07	16.10
21	Samanea saman	Thoongumoonjj maram	3	3	4	0.75	75.00	1	0.22	2.70	5.77	4.74	13.21
22	Prosopis juliflora	Algaroba, Mesquite	5	3	4	1.25	75.00	1.67	0.10	4.50	5.77	2.19	12.46
23	Eucalyptus globulus	Blue gum	3	3	4	0.75	75.00	1	0.10	2.70	5.77	2.19	10.66
Total			111	52					4.65				

Table 3.12 Assessment of Shrubs

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation Status
1	Jatropagossypifolia	Kaatamanaku	28	17	24	1.17	0.71	1.65	14.43	17.17	Not Assessed
2	Lantana trifolia	Shrub verbana	10	3	24	0.42	0.13	3.33	5.15	3.03	Not Assessed
3	Robiniapseudoacacia	Black locust	17	5	24	0.71	0.21	3.4	8.76	5.05	Least Concern
4	Lantana camara	Unnichi	9	6	24	0.38	0.25	1.5	4.64	6.06	Not Assessed
5	Calotropis gigantea	Erukam	14	12	24	0.58	0.50	1.17	7.22	12.12	Not Assessed
6	Stachytarphaeurticifolia	Rat tail	15	9	24	0.63	0.38	1.67	7.73	9.09	Not Assessed
7	Datura metal	Ummattangani	5	4	24	0.21	0.17	1.25	2.58	4.04	Not Assessed
8	Hibiscus rosa sinensis	Sembaruthi	3	2	24	0.13	0.08	1.5	1.55	2.02	Not Assessed

9	Tabernaemontanadivaricata	Crepe Jasmine	3	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
10	Chloromolaena odorata	Venapacha	9	6	24	0.38	0.25	1.5	4.64	6.06	Least Concern
11	Euphorbia geniculata	Amman Pacharisi	3	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
12	Catharanthus roseus	Nithyakalyani	3	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
13	Woodfordiafruticosa	Velakkai	3	3	24	0.13	0.13	1	1.55	3.03	Least Concern
14	Morindapubescens	Mannanunai	2	2	24	0.08	0.08	1	1.03	2.02	Not Assessed
15	Acalypha indica	Kuppaimeni	20	8	24	0.83	0.33	2.5	10.31	8.08	Not Assessed
16	Parthenium hysterophorous	Vishapoundu	50	13	24	2.08	0.54	3.85	25.77	13.13	Not Assessed

Table 3.13 Assessment of herbs and grasses

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation status
1	Plumbago zeylanica	Chittiramoolam	3	3	30	0.10	0.10	1	1.19	3.23	Not assessed
2	Mimosa pudica	Thottacherungi	6	5	30	0.20	0.17	1.2	2.38	5.38	Least concern
3	Sida acuta	Malaidangi	10	3	30	0.33	0.10	3.33	3.97	3.23	Not assessed
4	Scrophularia nodosa	Sarakkothini	15	7	30	0.50	0.23	2.14	5.95	7.53	Not assessed
5	Helicteresisora	Valampuri	2	2	30	0.07	0.07	1	0.79	2.15	Not assessed
6	Cynodondactylon	Arugu	12	6	30	0.40	0.20	2	4.76	6.45	Not assessed
7	Sporobolus fertilis	Giant Parramatta Grass	9	4	30	0.30	0.13	2.25	3.57	4.30	Not assessed
8	Viburnum dentatum	Viburnum	5	5	30	0.17	0.17	1	1.98	5.38	Least concern
9	Heraculem spondylium	Hog Weed	20	10	30	0.67	0.33	2	7.94	10.75	Not assessed
10	Laportea canadensis	Peruganchori	30	20	30	1.00	0.67	1.5	11.90	21.51	Not assessed
11	Euphorbia hirta	Amman Pacharisi	5	4	30	0.17	0.13	1.25	1.98	4.30	Not assessed
12	Tridax procumbens	Vettukaayathalai	5	4	30	0.17	0.13	1.25	1.98	4.30	
13	Tephrosia purpurea	Kavali	20	4	30	0.67	0.13	5	7.94	4.30	
14	Sida cordifolia	Maanikham	45	4	30	1.50	0.13	11.25	17.86	4.30	

15	Tridax procumbens	Cuminipachai	15	4	30	0.50	0.13	3.75	5.95	4.30	
16	Ruellia strepens	Grandinayagam	25	4	30	0.83	0.13	6.25	9.92	4.30	
17	Senna occidentalis	Nattamsakarai	25	4	30	0.83	0.13	6.25	9.92	4.30	

Table 3.14 Evenness and species Richness by Margalef

Details	H	Hmax	Evenness	Species Richness (Margalef)
Trees	3.21	3.52	0.9	7
Shrubs	2.36	2.77	0.85	2.84
Herbs	2.56	2.83	0.9	2.89

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

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 3.15 List of Fauna

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	Eryx johani	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	Cyprinus 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

The core zone of the area is government poramboke land, no forest land is involved in the project area. The proposed quarry area is covered by thorny bushes. There is no Wild Life Sanctuary or National Park within the study area of 10km. There is no schedule I species of animals observed within study area as per Wildlife Protection Act 1972 as well as no species is in vulnerable, endangered or threatened category as per IUCN. There is no endangered red list species found in the study area. Hence this small mining operation over short period of time will not have any significant impact on the surrounding flora and fauna.

3.3.7 LAND USE

Remote Sensing Satellite Data Used for the Study

For Land-use and land cover study, sensing satellite data of Geo EYE has been used as per Figure No. 1. A land use map showing 10 Km radial distance. The geographical coordinates of the project are by **Latitude:** 11°13'15.95"N to 11°13'20.52"N **Longitude:** 78°54'52.38"E to 78°54'55.92"E.

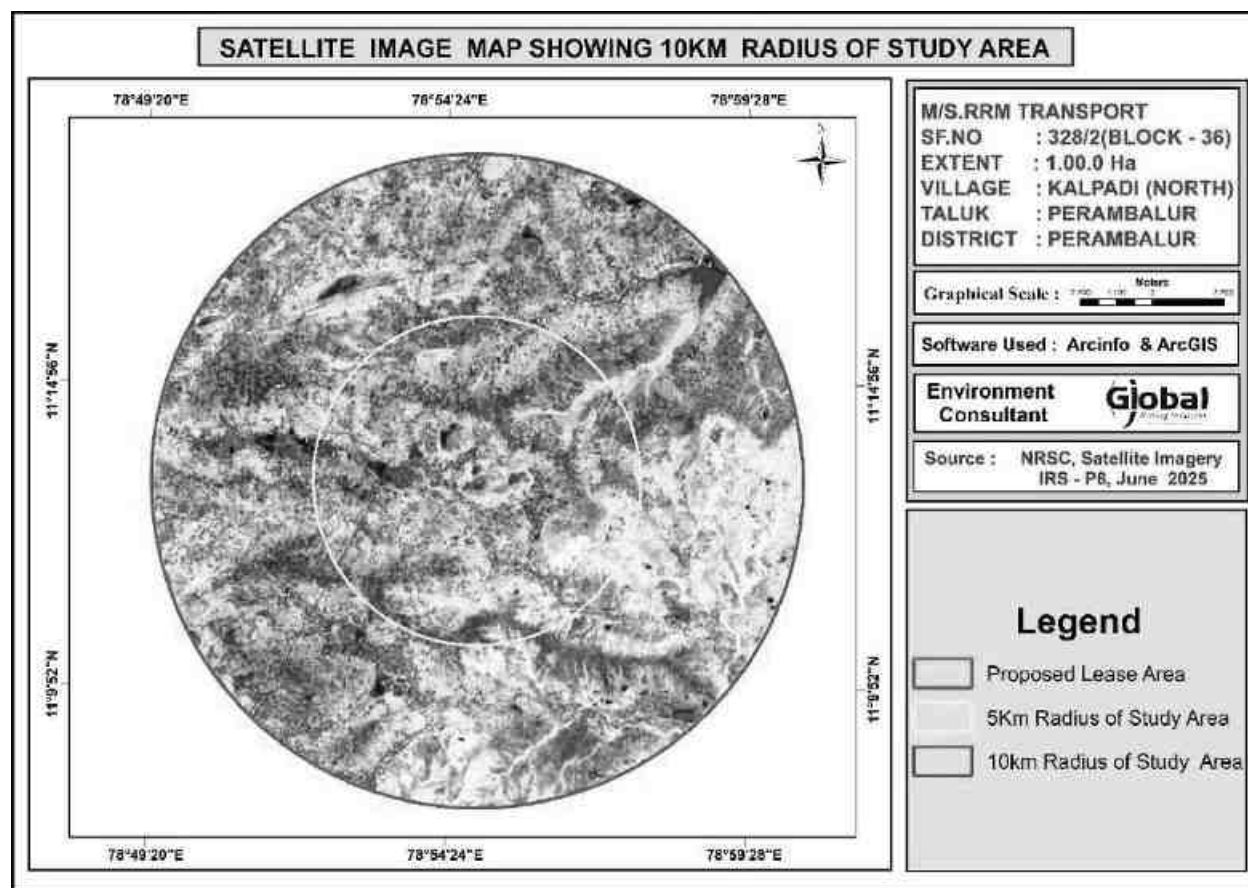


Figure No. 3.19: Remote Sensing Satellite Image

Selection of remote sensing satellite image (RSI) is on the availability of cloud free data and interpretability of predominant landuse and land cover (LULC) category. The examination of satellite data showed that the region is always covered by clouds with lesser percentage during summer due to cluster habitation. But rained crops are cultivated during southwest monsoon and hence a data acquired during first onset of precipitation is preferred so as to delineate crop and fallow land parcels of agricultural category. Delineation of scrub land is also possible since land with scrub could be easily distinguished from crop vegetation and separated. This may be an arduous task during monsoon since the entire area would be witnessed with sudden sprout of lush natural vegetation, mostly *prosopis*, with first onset of precipitation.

Methodology Adopted for the Land Use Study

Present study involves micro level analysis of landuse pattern showing 10 km radius and changes in landuse pattern using satellite data. This necessitates a careful analysis of satellite data adopting a well-defined methodology.

To cater the requirement, a preliminary assessment of terrain using digital analysis helping to infer relationship between terrain and landuse has been carried out. Such an approach provides lucid understanding of landuse units and enhances the knowledge on the landuse pattern assisting in impact assessment.

The knowledge base thus generated is used to delineate various landuse units while carrying out interpretation of the satellite image. The derived landuse information is transformed into a GIS based spatial database using geo-referencing techniques. Besides, a limited but well focused field investigation also carried out and coordinates of significant landuse units using handheld GPS (Global Positioning System) are gathered to be used as control points for geo-referencing. Interpreted landuse units are verified in the field to carryout necessary corrections wherever is required before preparing final landuse map.

Using the image elements such as color, tone, texture, size, shape and associated elements various landuse units are delineated following the categorization and nomenclature adopted for the national level landuse classification system as recommended by National Remote Sensing Centre (NRSC), Department of Space, Government of India. Some of the landuse units that are identified in the study area are listed in Table No. 3.15 given below.

Field Verification:

Field verification involved collection, verification and record of the different surface features that create specific spectral signatures / image expressions on FCC. In the study area, doubtful areas identified in course of interpretation of imagery is systematically listed and transferred on to the corresponding SOI topographical maps for ground verification. In addition to these, traverse routes were planned with reference to SOI topographical maps to verify interpreted LU/LC classes in such a manner that all the different classes are covered by at least 5 sampling areas, evenly distributed in the area. Ground truth details involving LU/LC classes and other

ancillary information about crop growth stage, exposed soils, landform, nature and type of land degradation are recorded and the different land use classes are taken the Land use map.

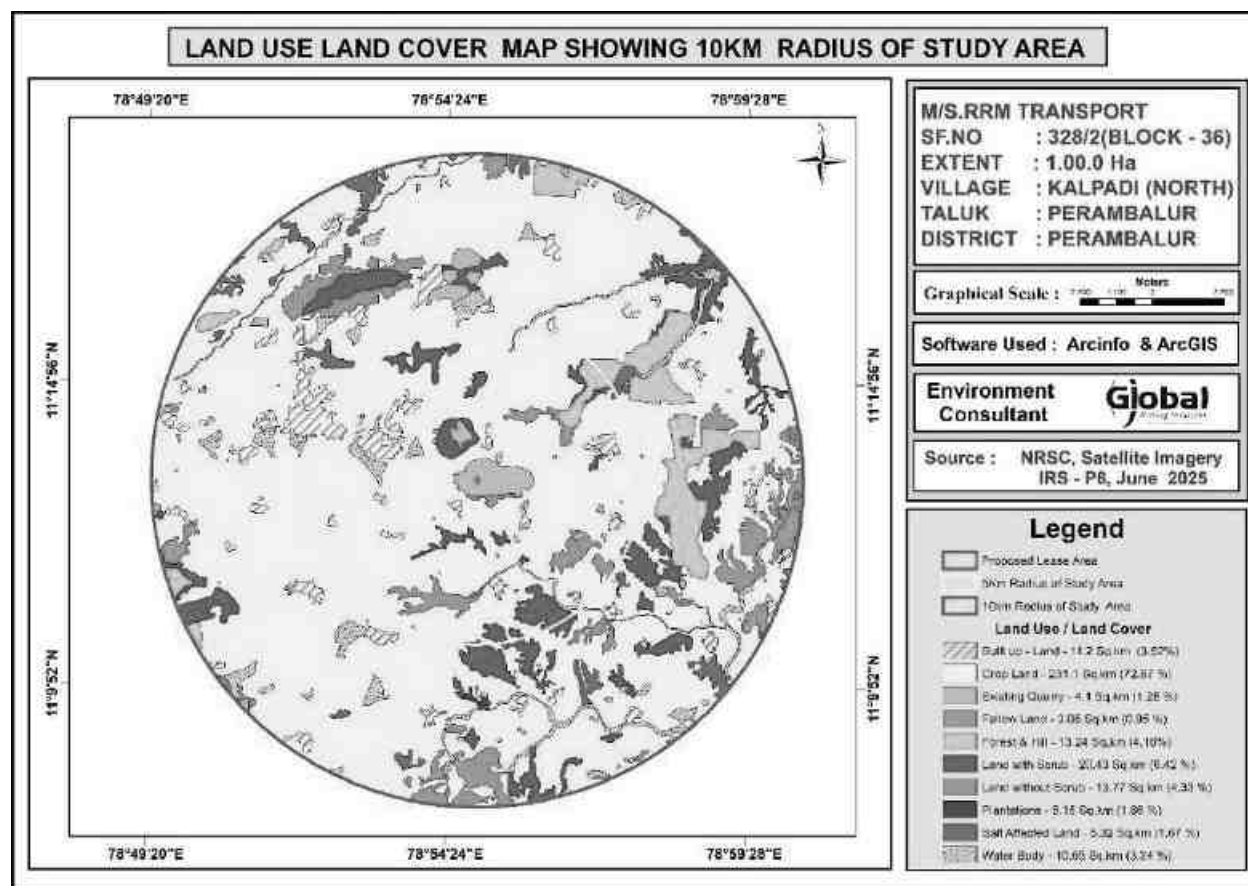
Table No.3.16: Major Land use Units of the Study Area

Sr.No	1st level classification	2nd level classification
1	Built-Up Or Habitation	Residential
		Commercial / Industrial
2	Agriculture	Crop / Fallow Land
		Plantation
3	Water Bodies	Reservoir / Lake / Pond
		River
4	Vegetation Cover	Scrub
		Open Vegetation
		Close Vegetation
		Mangroves
5	Waste Land	Open Without Scrub
		Open With Scrub
6	Others	Mudflow
		Salt Pan
		Brick Manufacturing

Land Use Pattern of 10 km Radial Buffer Area of Project Site

A supervised classification (Digital Interpretation) technique has been adopted for land use classification based on the NRSC Classification Level II for the preparation of land use mapping. The satellite images from NRSC satellite imagery IRS-P6 December 2024 as well as the projection UTM (Universal Traverse Mercator) and datum WGS1984 (World Geodetic System), Northern Hemisphere. The main objective of this section is to provide a baseline status of the study area covering 10 km radius around the mine site so that temporal changes due to the mining activities on the surroundings can be assessed in future. The land use map of the study area is given in Figure 3.21

FIG 3.20 LAND USE/LAND COVER MAP OF THE STUDY AREA



Land Use / Land Cover Classification classified into first level classification and second level classification and major land use/land cover classes were demarcated in the study area following Level II classification. A thematic map of 1:50,000 scale was generated incorporating these classified categories considering the area of the project.

Table 3.17 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	11.2	3.522
2	Crop land	231.11	72.672
3	Existing quarries	4.1	1.289
4	Fallow land	3.05	0.959
5	Hill and forest	13.24	4.163
6	Land with scrub	20.43	6.424

7	Land without scrub	13.77	4.330
8	Plantations	5.15	1.619
9	Salt affected Land	5.32	1.673
10	Water body	10.65	3.349
	Total Area	318.02	100

3.3.8 SOCIOECONOMIC ENVIRONMENT

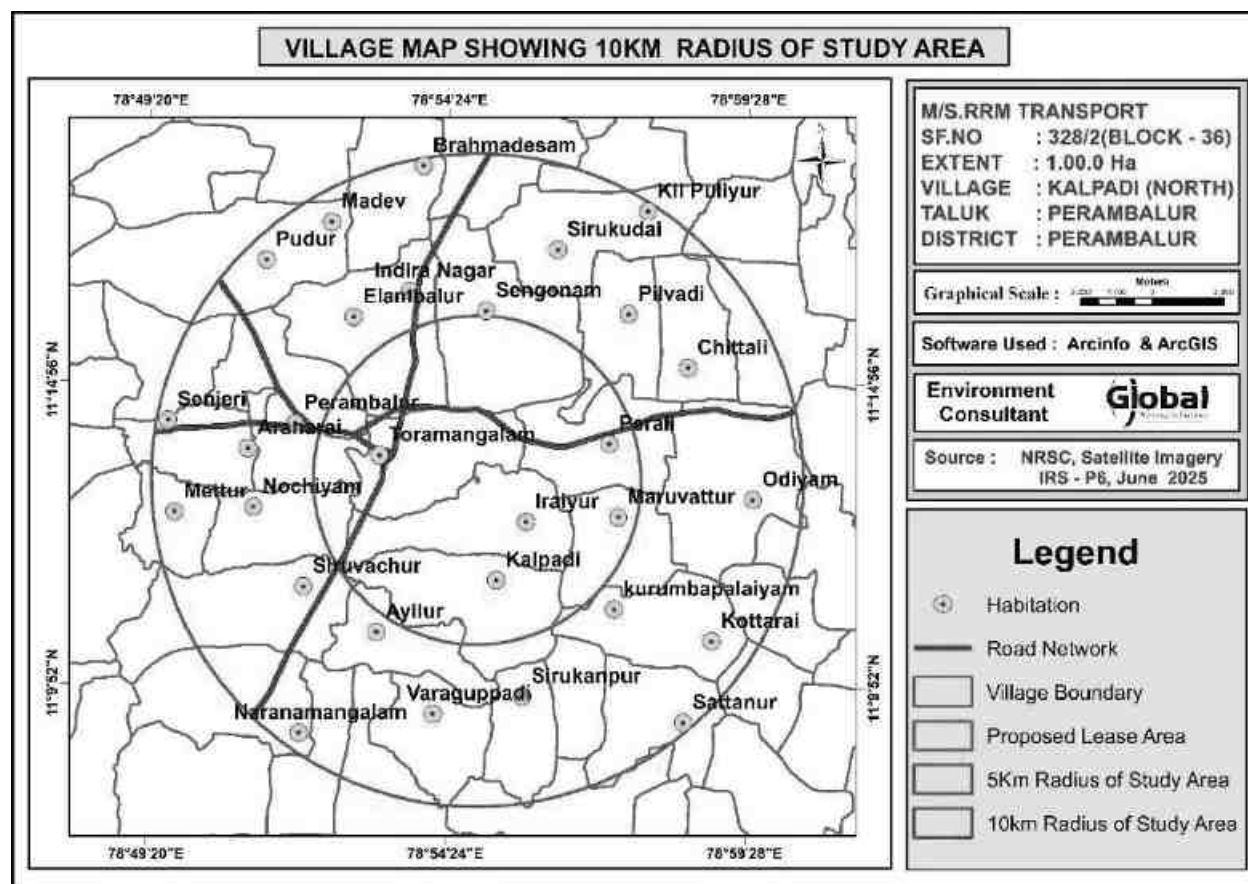
The socio-economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used. The following data area collected from secondary data:

- Demographic pattern.
- Health pattern
- Occupational structure.

3.11.1 DETAILS OF VILLAGES

The profile of the villages located in the study area is given in Fig 3.22 below.

FIG 3.21 VILLAGE MAP OF THE STUDY AREA



DETAILS OF VILLAGES

The project is located in Perambalur Taluk, Perambalur District. From the secondary data, study area villages were observed in the study area of 10km radius. List of villages are given below.

Table 3.18 Village Details in study area				
S.No.	Village/Town Name	Radius	Taluk Name	District Name
1	Tormangalam	0-5 km	Perambalur	Perambalur
2	Iraiyr			
3	Kalpadi			
4	Maruvattur			
5	Perai			
6	Kurumbapalaiyam			
7	Kil Puliyur	5-10 km		
8	Madev			
9	Sirukudai			
10	Sengonam			
11	Chittali			

12	Elambalur			
13	Perambalur			
14	Aranarai			
15	Nochiyam			
16	Siruvachur			
17	Ayilur			
18	Varaguppadi			
19	Sirukanpur			
20	Sattanur			
21	Adanur			
22	Mungilpadi			
23	Odiyam			
24	Asur			

Table 3.19 - Population profile of the study area

Table 3.19 Population profile of the study area		
Particulars	No of Population	Percentage (%)
A. Population break-up by Gender		
Male Population	2,82,157	49.91
Female Population	2,83,066	50.09
Total	565,223	100
B. Population break-up by Caste		
Scheduled Caste	175,289	31.01
Scheduled Tribes	2,584	0.46
Others	3,87,350	68.53
Total	565,223	100
C. Literacy Level		
Total Literate Population	375,823	66.5
Others	1,89,400	33.5
Total	565,223	100
D. Occupational structure		
Main workers	255,097	45.13
Marginal workers	44,629	7.89
Total Workers	199,726	35.34
Total Non-workers	65,771	11.64
Total	565,223	100

Infrastructure facilities in the study area

Education

Table 3.20 Educational infrastructure -10 km radius from proposed mine lease

S. No.	Particulars	Available in village (Nos)
1	Govt. Primary School	17
2	Govt. Middle School	10
3	Govt. Secondary School	4
4	Govt. Senior Secondary School	2
5	Govt. Arts and Science Degree College	0
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

Healthcare

In the study area, the following facilities are available.

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

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

Other Infrastructure

The other infrastructure facilities available are given below.

Table 3.22 Other Infrastructure-10 km radius from proposed mine lease

S.No.	Particulars	Available in village
1	Tap Water-Treated	18
2	Covered Well	14
3	Hand Pump	12
4	Tube Wells/Borehole	17
5	Post office	2
6	Public bus services	15
7	Commercial Bank	2
8	Cooperative bank	2

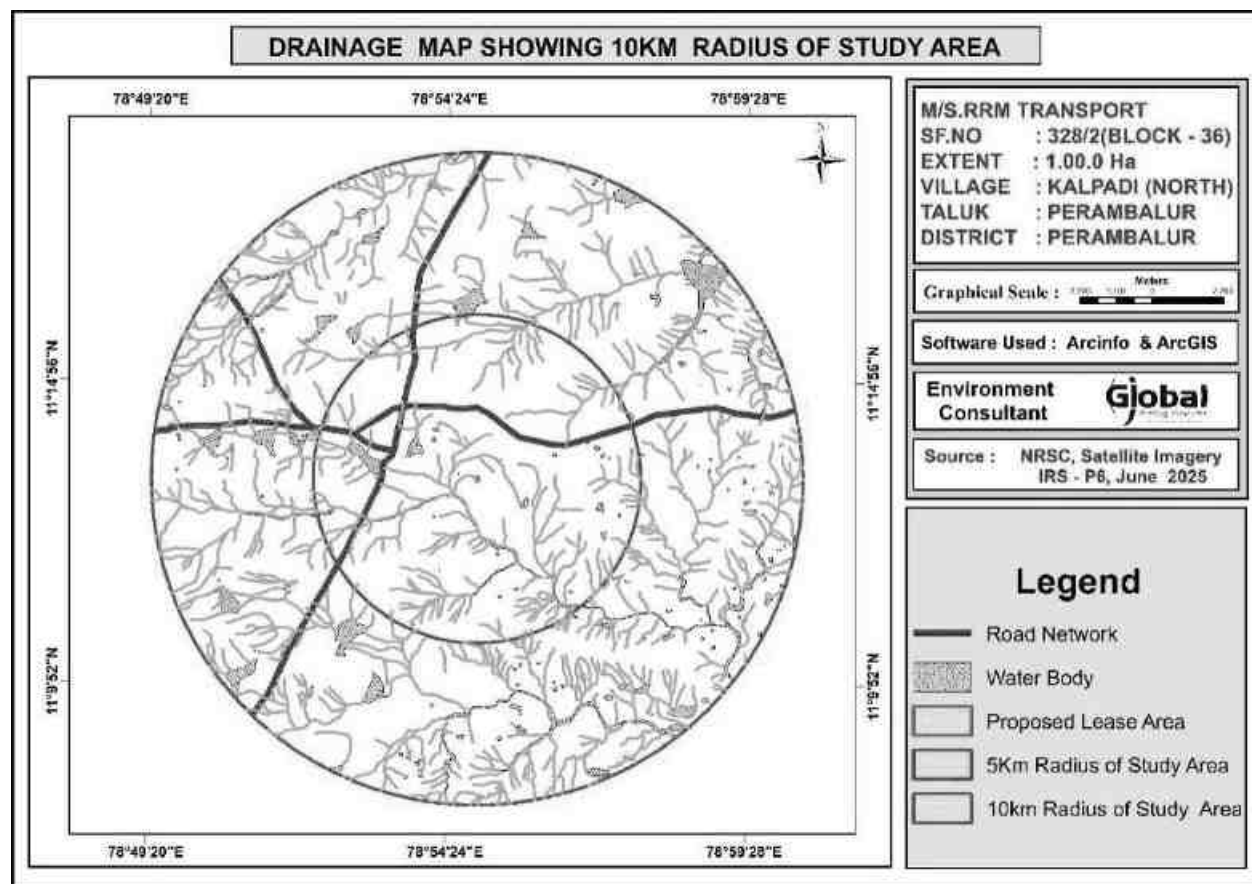
3.3.9 HYDROGEOLOGY OF THE STUDY AREA

There is the Kottarai stream at a distance of 0.80 km (SW), K.Eriyur lake – 1.60 km (SE), Avvaiyar nagar village pond – 1.98 km (NW), Thuraimangalam lake – 2.80 km (NE). The hydrological and hydrogeological pattern of the study area is studied in detail using satellite imagery.

HYDROGEOLOGICAL STUDY

To assess the hydrogeological condition of the surrounding proposed mine lease area. The study area is located in Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State is considered to understand the nature of the general hydrogeological conditions of the surrounding proposed mine lease area.

FIGURE 3.22 10 KILOMETER RADIUS OF THE DRAINAGE MAP



PHYSIOGRAPHY AND DRAINAGE

Proposed Mine lease area is dry Government poramboke land with majority of the area is observed with hard rock formation. There is no any seasonal or perennial Odai within the M.L area. The drainage pattern of the region is plane to sub-dendritic.

Drainage: The drainage pattern study reveals that from the proposed mine lease area with around 1 Km radius and 10 Km study observed in Figure 3.26. There is Amaravathi River is located at a distance of 6.2 km in Southeast direction of lease area of the proposed site.

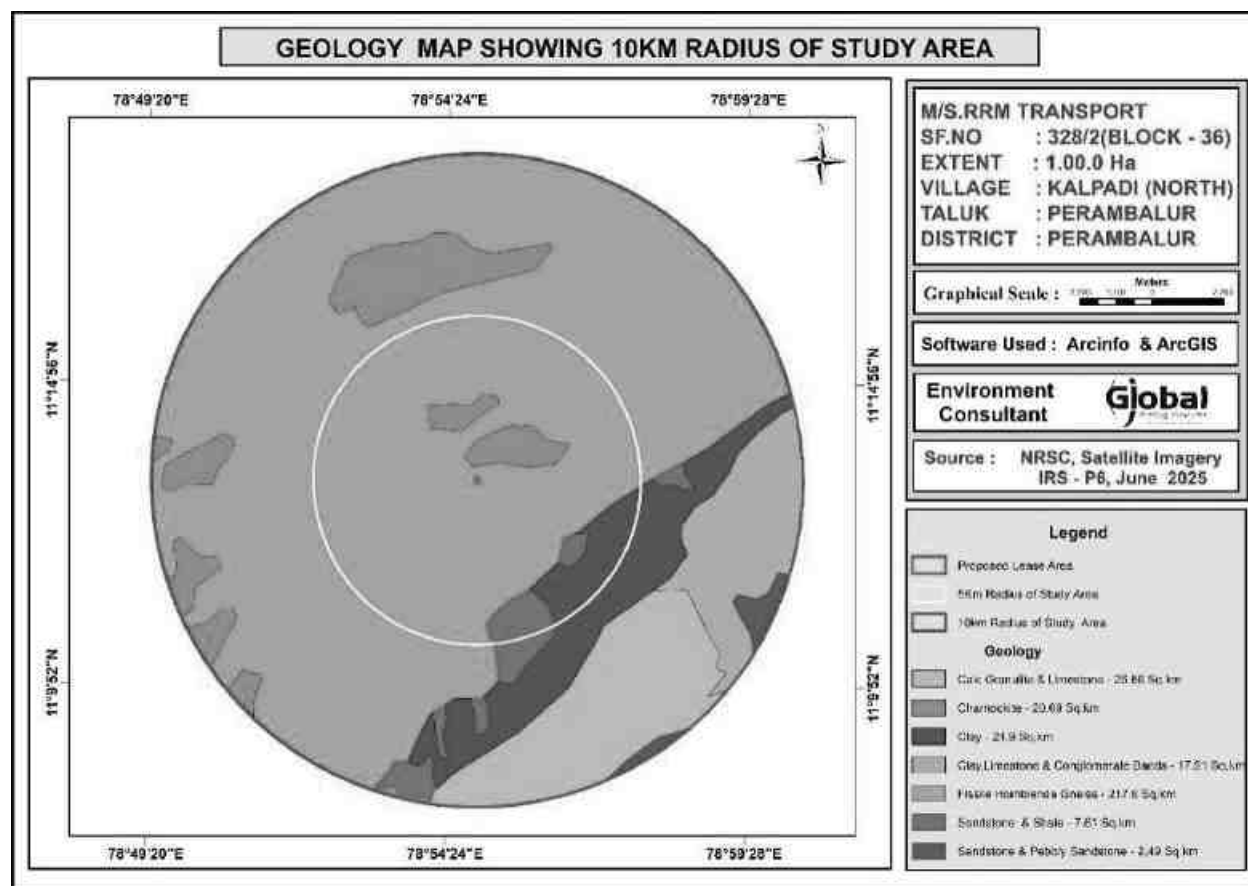
GEOLOGY, GEOMORPHOLOGY AND SOIL

Geology:

The regional geology of the study area is shown below Figure 3.27. The type of rock formation in the core and buffer zone is composed of Cal Granulite & Limestone, Charnockite, Clay, Clay, Limestone & Conglomerate bands, Fissile Hornblende Gneiss, Sandstone & Shale, Sandstone & Pebbly Sandstone. The geology of the study area is detailed below.

Sl.No	Geological description	Area in sq.km	Area in percentage
1	Cal Granulite & Limestone	26.86	8.44
2	Charnockite	20.69	6.50
3	Clay	24.9	7.82
4	Clay, Limestone & Conglomerate bands	17.91	5.63
5	Fissile Hornblende Gneiss	217.6	68.41
6	Sandstone & Shale	7.61	2.39
7	Sandstone & Pebbly Sandstone	2.49	0.78
Total		318.06	100.00

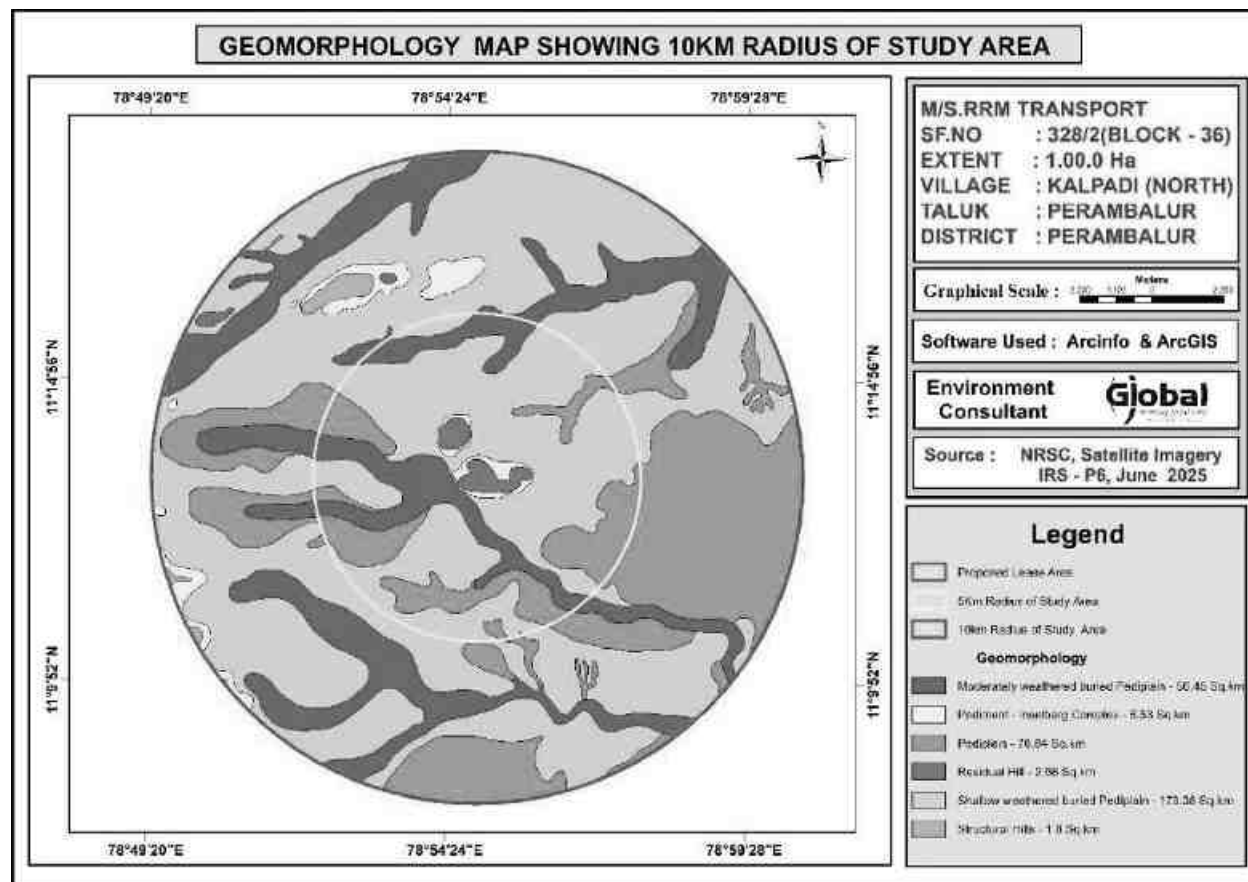
FIGURE 3. 23 10 KILOMETER RADIUS OF THE GEOLOGY MAP



Geomorphology: Predominantly the buffer zone is dominated by Shallow weathered buried pediplain as detailed below. The geomorphology of the study area is given in Figure 3.28.

Sl.No.	Geomorphological description	Area in Sq.Km	Area in Percentage
1	Moderately weathered buried pediplain	56.45	17.76
2	Pediment- Inselberg Complex	6.54	2.05
3	Pediplain	76.84	24.18
4	Residual hill	2.68	0.84
5	Shallow weathered buried pediplain	173.38	54.57
6	Structural hills	1.8	0.56
Total		317.69	100.00

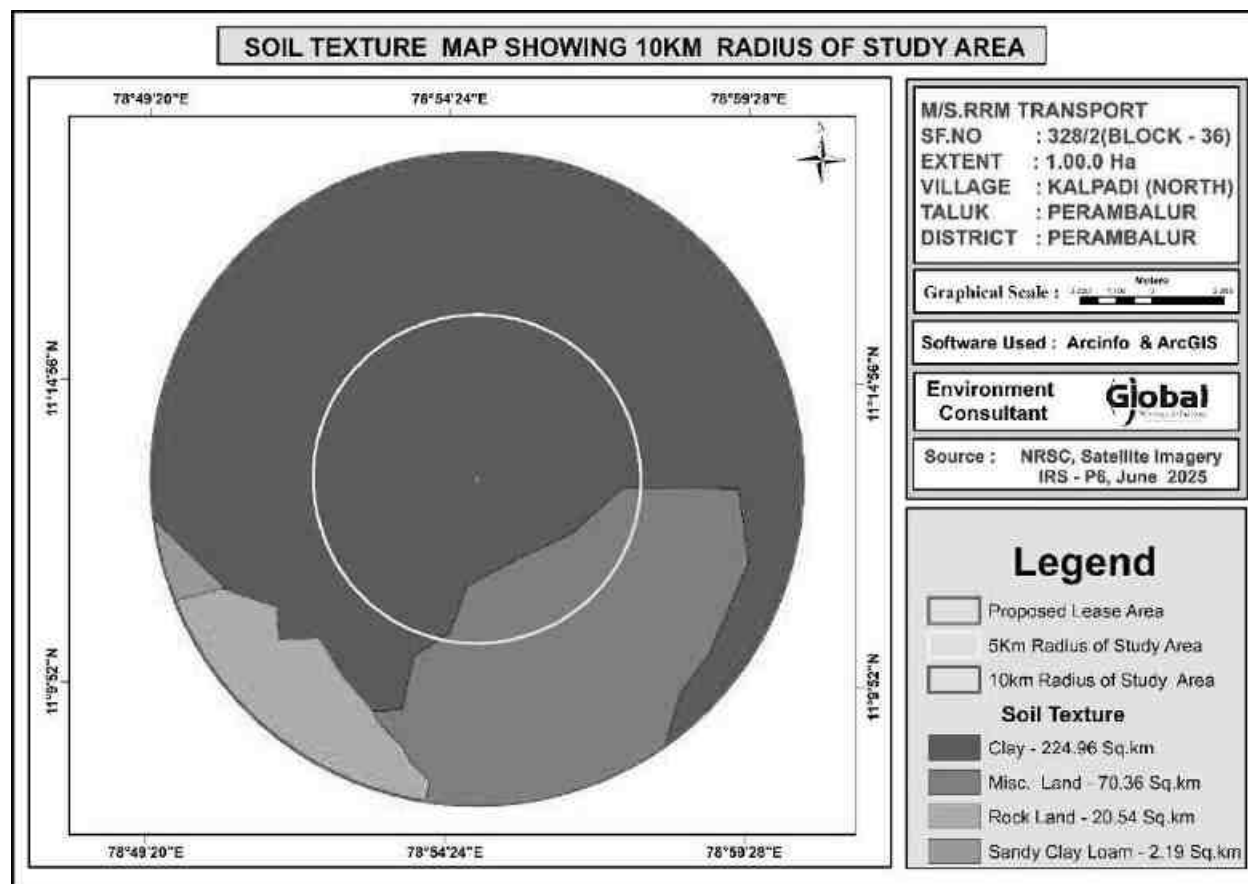
FIGURE 3. 24 10 KM RADIUS OF THE STUDY AREA GEOMORPHOLOGY MAP



Soil: The study area is mainly dominated by Clay soil category. Soil map of Core & Buffer Zone map is given in Figure 3.28. Soil map of the study area is detailed below.

Sl.No.	Soil drainage pattern	Area in Sq.km
1	Clay	224.96
2	Misc land	70.36
3	Rock land	20.54
4	Sandy clay loam	2.19

FIGURE 3.25 10 KM RADIUS OF THE STUDY AREA SOIL TYPE MAP



FIELD INVESTIGATION

There is the Kottarai stream at a distance of 0.80 km (SW), K.Eriyur lake – 1.60 km (SE), Avvaiyar nagar village pond – 1.98 km (NW), Thuraimangalam lake – 2.80 km (NE)

The water is temporarily found only during the rainy season.

In this representation in the two seasons, the water level substantially gets fall-down in the non-monsoon season, because of the rainfall impact and it extended up to the Monsoon season. Some of the wells water level is shallow depth in both seasons. These dug wells are located nearby water bodies. So, clearly shows that surface water is impact in these wells.

The shallow depth of groundwater level in the monsoon season. It is interesting to note that the water level is increased because of heavy rainfall during the southwest and northeast monsoon. The groundwater table level is substantially increased in the monsoon season.

In the study area, the shallow aquifer is developed through dug wells and deeper aquifer through tube wells. The study has revealed that potential fractures are encountered at deeper levels. The water in the wells are available mainly monsoon and it reduces during non-monsoon demanding the groundwater. Bore wells are deep and it reflects that the yield is only better at deeper water levels.

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

CHAPTER 4

ANTICIPATED ENVIRONMENTAL IMPACTS AND

MITIGATION MEASURES

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 of S.F.No. 328/2 (Block-36) over an extent of 1.00.0 Ha in Kalpadi (North) Village, Perambalur 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 4,03,331.50 Ts (1,46,666 m³) of Rough Stone up to a depth of 66m (41m above ground level and 25m below ground level) for the proposed mining plan for the period of five years. 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. The project area of 1.00.0 Ha boundary barrier except in eastern direction. It is proposed to be altered by effective quarrying operation such as excavation (0.92.5 Ha), Infrastructure (0.01.0), Road (0.01.0 Ha) and green belt will be developed in the safety zone of 0.05.5 Ha. The ultimate depth of quarrying is proposed with maximum depth of 66m (41m above ground level and 25m below ground level) and will not intersect the ground water table.

4.2 MEASURES FOR MINIMIZING AND /OR OFFSETTING ADVERSE IMPACTS

IDENTIFIED

Aspect	Impact	Mitigation measures																																																	
Topography	The area is exhibits hilly terrain covered by Chanockite 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 SO₂, NO_x, PM₁₀, 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>0.92.5</td><td>0.92.5</td></tr><tr><td>Infrastructure</td><td>Nil</td><td>0.01.0</td></tr><tr><td>Roads</td><td>0.01.0</td><td>0.01.0</td></tr><tr><td>Green Belt</td><td>Nil</td><td>0.05.5</td></tr><tr><td>Unutilized</td><td>0.06.5</td><td>Nil</td></tr><tr><td>Total</td><td>1.00.0</td><td>1.00.0</td></tr></table>	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)	Quarrying Pit	0.92.5	0.92.5	Infrastructure	Nil	0.01.0	Roads	0.01.0	0.01.0	Green Belt	Nil	0.05.5	Unutilized	0.06.5	Nil	Total	1.00.0	1.00.0	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 66 m (41 m AGL + 25 m 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>0.92.5</td></tr><tr><td>Green Belt</td><td>0.05.5</td></tr><tr><td>Remaining area</td><td>0.02.00</td></tr><tr><td>Total</td><td>1.00.0</td></tr></table> At the mine closure stage 0.92.5Ha of lease area will be left as rain water harvesting pond 0.05.5 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="5">Pungai, Vagai, Vembu, Manjal konrai, Naval,</td><td>55</td><td rowspan="5">3m x 3m</td><td rowspan="5">80%</td></tr><tr><td>II</td><td>-</td></tr><tr><td>III</td><td>-</td></tr><tr><td>IV</td><td>-</td></tr><tr><td>V</td><td>-</td></tr></table>	Land Use	Area in use during the quarrying period (Hect)	Area left for water body	0.92.5	Green Belt	0.05.5	Remaining area	0.02.00	Total	1.00.0	Year	Species	No. of trees	Spacing	Survival	I	Pungai, Vagai, Vembu, Manjal konrai, Naval,	55	3m x 3m	80%	II	-	III	-	IV	-	V	-
		Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)																																															
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IV		-																																																	
V		-																																																	

	The ultimate pit dimension of the mine lease area is given below.	<table><tr><td></td><td>Puvarasu, etc</td><td></td><td></td><td></td></tr><tr><td colspan="2">Total</td><td>55</td><td></td><td></td></tr></table>					Puvarasu, etc				Total		55			As per SEAC norms, PP have to plant 1000 Saplings per Ha The safety zone, covering an area of 0.05.5 hectares, will be maintained as a green belt and planted with local species Plantation within Safety Zone (i.e. 0.05.5 Ha) – 55 nos 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 45⁰ slope and with conventional opencast Mechanized method. As per the approved mining plan a safety distance of 10m 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.					
			Puvarasu, etc																		
		Total		55																	
		<table><tr><th colspan="5">Ultimate Pit dimension at the end of Mining plan Period</th></tr><tr><th>Pit No.</th><th>Length (max) (m)</th><th>Width (Avg) (m)</th><th colspan="2">Depth (max) (m)</th></tr><tr><td>I</td><td>123</td><td>75</td><td colspan="2">66m (41m above ground level and 25m below ground level)</td></tr></table>				Ultimate Pit dimension at the end of Mining plan Period					Pit No.	Length (max) (m)	Width (Avg) (m)	Depth (max) (m)			I	123	75	66m (41m above ground level and 25m below ground level)	
		Ultimate Pit dimension at the end of Mining plan Period																			
Pit No.	Length (max) (m)	Width (Avg) (m)	Depth (max) (m)																		
I	123	75	66m (41m above ground level and 25m below ground level)																		
If mining is not done systematically it will leads to the dumping failure in the mining area																					
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 66m (41m above ground level and 25m below ground level). The ground water table is reported as 70 m. In the proposed mining plan only 66m (41m above ground level and 25m below ground level) 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 66m (41m above ground level and 25m below ground level). The ground water table is reported as 70 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 66m (41m above ground level and 25m below ground level). In the post mining stage, the quarried out pit will be used for rainwater harvesting.

4.2.1 LAND ENVIRONMENT

ANTICIPATED IMPACT

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 of 1.00.0 Ha. is Government poramboke Land. The project area of 1.00.0 Ha is proposed to be altered by effective quarrying operation such as excavation (0.92.5 Ha), Infrastructure (0.01 Ha), Road (0.01 Ha) and greenbelt (0.57.2 Ha). The ultimate depth of quarrying is proposed by formation of 1 pit with maximum depth of 25 m below the ground level and will not intersect the ground water table.

- Change in topography of the mine lease area will change at the end of the life of the mine.
- At the end of life of mine, the excavated mine pit / void of 0.92.5Ha. 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 (0.05.5 Ha.) will be developed along the safety barrier and top benches and 0.02 ha are approach road and Infrastructure.
- Problems to agricultural land and human habitations due to dust, and noise caused by movement of heavy vehicles.
- Degradation of the aesthetic environment of the core zone due to quarrying.
- Soil erosion and sediment deposition in the nearby water bodies due to earthworks during the rainy season.
- Siltation of water course due to wash off from the exposed working area.
- Solid waste will be generated from the mining activity as there will be refuse, also generation of domestic waste. If it not properly managed, may cause odor and health problem to the workers

MITIGATION MEASURES

- In the rough stone and gravel quarrying operation, land degradation is minimal. After completion of the quarrying operation, the land will be allowed to collect rainwater, this rough stone does not produce any toxic effluents in the form of solids, liquids, or gases.
- It is a simple quarrying operation where 100% of stones will be removed systematically, according to the approved Mining Plan.
- The periphery of the mining lease area will be converted to a greenbelt to prevent Noise and sound propagation to the nearby lands.
- Entire mined out area will be properly fenced to prevent inadvertent entry of human and animals.

4.2.2 SOIL ENVIRONMENT

ANTICIPATED IMPACT

Mining activities often disrupt the existing environment as they involve disturbing the untouched earth materials. The overburden in the form of top soil generated will be utilized for afforestation purpose, the surface consists of top soil formation followed by rough stone which is proposed to excavate completely during the quarrying operation. Erosion of top layer (top soil), extracted fine material can result in substantial sediment loading to surface waters and drainage ways. During rainy season surface run off may cause sedimentation in low lying areas.

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 minimise 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 (0.05.5Ha.) all along the periphery of the project area (i.e., 10 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 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

4.2.4 WATER ENVIRONMENT

Impact on Surface Water Resources

There is no seasonal or Odai within the M.L area. The drainage pattern of the region is plane to sub-dendritic. Surface run-off water of the M.L. area is drained through proposed drainage and collected in the bottom of the quarry and collected water will be used for same quarry operation as such for plantation & dust suppression.

Kottarai stream – 0.80km (SW), K.Eriyur lake - 1.60 km (SE), Ariyalur nagar village pond- 1.98m (NW), Thuraimangalam lake-2.80 km (NE), Vellathangiyamman pond- 5.41km (NW), Sirugudal lake-8.00 km (NE), Kottarai Dam-8.99 km (SE)

Water table is found at a depth of 70m.

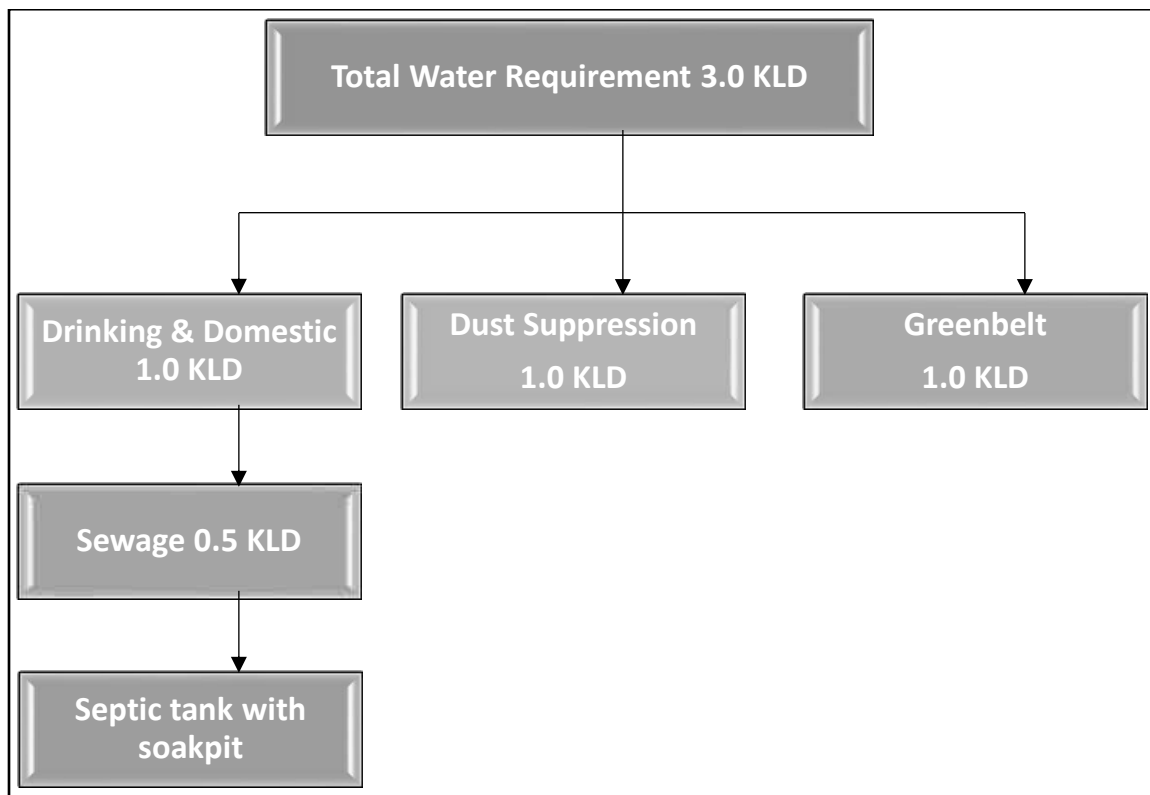
Since these water bodies are located outside the lease area and there is no discharge of effluent or any untreated water from the mines will be made into these water bodies, there is no major impact. The project proponent will restrict the mining

operation only within the lease and no other work will be carried out near the canal or any area outside the mining lease.

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 3.0KLD which will be sourced from outside agencies. Negligible sewage of 0.5KLD 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 70 m. The mining will go up to the maximum depth of 66m (41m above ground level and 25m below ground level) 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)

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 4.1 – 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	10000	0.82	2870
Total Harvested Rainfall				2870

Total surface water runoff is 2870 Cum per Annum. 10% of this amount will be evaporated and rest 2583 m³ will be recharged in the rain water harvesting pit.

One sump with capacity 3000 cu.m will be provided to harvest the rain water. 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.

4.2.4 VEGETATIONVEGETATION IN THE CORE ZONE

The mine lease area is devoid of major plantation. Shrubs and bushes are majorly found within the lease area. The proponent has planned to develop green belt in an area of 0.05.5 Ha. Trees like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indica will be planted around the mine lease area. Spacing will be 3m x 3m. As per SEAC norms, PP have to plant 1000 Saplings per Ha

The safety zone, covering an area of 0.05.5 hectares, will be maintained as a green belt and planted with local species

Plantation within Safety Zone (i.e. 0.05.5 Ha) – 55 nos

FAUNA

There are no sanctuaries/national parks in the buffer zone of 10km study area. The commonly found fauna in the buffer zone are given in Chapter III. During mining activity the impacts and mitigation measures for Fauna are given in below table.

Table 4.2 Impacts and mitigation measures for Fauna		
S.No.	Impact	Mitigation measure
1	Fauna is affected due to noise and vibration.	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.

2	Dust generation due to mining activities	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.
3	Change in land use of the lease area	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.
4	Accidental falling of animals	To prevent entry of animals, the mine lease surrounding area will be properly fenced with barbed wire.

4.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF ENVIRONMENTAL COMPONENTS.

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 Air Emissions

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.

4.3.4 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 proposed is 1,46,666 m³ of Rough Stone of Rough stone upto a depth of 66m (41m above ground level and 25m below ground level) for the period of five years.

Proposed quarries production RRM TRANSPORT (1,46,666 m³ of Rough Stone) , M/s. Sri Rajakaliamman Mines and Minerals (94230 m³ of Rough Stone), M/s.Kavery stones crusher (1,06,725m³ m³ of Rough Stone), M/s. Perambalur Quality Minerals (1,76,669 m³ of Rough Stone), M/s. GKP Transports (84061 m³ of Rough Stone), M/s.C.Kamarajrajashree Mines and Minerals (70885 m³ of Rough Stone)

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

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 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 inhomogeneity 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.

4.3.5 Sources of Dust Emission

The proposed mining is carried out by 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 (SO₂), Oxides of Nitrogen (NO_x) 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.

4.3.6 Emission Details

All the emissions discussed above are quantified for proposed maximum production of is 4,03,331.50 Ts (1,46,666 m³) of Rough stone upto a depth of 66m (41m above ground level and 25m below ground level) for the period of five years.

Cluster quarries production M/s Kavery stone crusher is 106725 m³ of Rough Stone, M/s. Perambalur quality minerals is 176669 m³ Rough Stone, M/s. GKP Transport is 84061 m³ Rough Stone, M/s. Rajakaliamman mines is 94230 m³ Rough Stone, M/s. Kamarajrajashree mines is 94230 m³ Rough Stone and cluster existing queries Thiru.N.Premkumar is 281140 m³ Rough Stone, Thiru.C.Murugesan is 256950 m³ Rough Stone, Sri.Vinayaka Minerals is 714575 m³ Rough Stone, M/s. SS mines and Minerals is 264750 m³ Rough Stone, Thiru.K.Ganeskaran is 150240 m³ Rough Stone, Thiru.S.Elumalai is 303940 m³ Rough Stone for a period of five years by the open-cast mechanised mining method.

The emissions are computed based on AP-42 emission factors. Operational hours, activity rate, wind speed and moisture content have been considered for estimation of emissions from point and area sources. For line source, apart from operational hours, activity rate, moisture, silt content and vehicle weight have been considered.

Predictions are carried out for the worst-case scenario of simultaneous operation of excavators (area sources) and tippers for transportation from mine pit to loading pit (line sources) over a distance of 500 m.

The number of working days has been taken at 300 days per year with 8 hours of operation/day, hence the concentrations predicted are considered to be the worst case. With control measures, the emissions have been taken at 30% of uncontrolled emissions for handling and 10% of uncontrolled emissions for transportation.

4.3.7 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.

4.3.8 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 1.43 $\mu\text{g}/\text{m}^3$ of PM 2.5 & 2.53 $\mu\text{g}/\text{m}^3$ of PM10 within the mine area and cluster area is estimated to be about 2.29 $\mu\text{g}/\text{m}^3$ of PM 2.5 & 3.92 $\mu\text{g}/\text{m}^3$ of PM10, 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 PM₁₀ due to emissions from mine.

4.3.9 Emission sources & Quantification

Various point and non-point sources of emissions from Proposed Rough stone Quarry of M/s RRM Transport is quantified and presented below:

Area Emissions – Total Material handling (Rough Stone)

Quantity, TPA	M/s RRM Transport 146666 m ³ Rough Stone (Five Years)
Operational Hours Per Year	2400
Activity Rate, t/hr.	400.9192
Emission of dust, g/t.	0.17
Emission of dust, g /hr.	54.565
Area of influence, m ²	625
Uncontrolled emission rate g/s/m ²	0.000039342
Controlled emission rate, PM10 g/s/m ²	0.00003934
Controlled emission rate, PM2.5 g/s/m ²	0.00028543

Line Source – Transport of Rough Stone from Pit to Boundary

Quantity, TPA	M/s RRM Transport 146666 m ³ Rough Stone (Five Years)
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	9125
Lead length/trip, Km	0.75
Total VKT/Year	43953
Emission Kg/VKT	0.25
Total emission Kg/Year	47421
Uncontrolled emission rate g/s/m	3.7324
Controlled emission rate, PM10 g/s/m	0. 37324
Controlled emission rate, PM2.5 g/s/m	0.29655

Area Emissions – Total Material handling (Cluster Rough Stone)

Quantity, m ³	Proposed existing queries: • M/s RRM Transport, Rough Stone 146666 m³ • M/s Kavery stone crusher, Rough Stone 106725 m³ • M/s. Perambalur quality minerals, Rough Stone 176669 m³ • M/s. GKP Transport, Rough Stone 84061 m³, • M/s. Rajakaliamman mines, Rough Stone 94230 m³ • M/s. Kamarajrajashree mines, Rough Stone 94230

	m^3 Cluster existing queries: • Thiru.N.Premkumar, Rough Stone 281140 m^3, • Thiru.C.Murugesan Rough Stone 256950 m^3, • Sri.Vinayaka Minerals, Rough Stone 714575 m^3, • M/s. SS mines and Minerals, Rough Stone 264750 m^3, • Thiru.K.Ganeskaran, Rough Stone 150240 m^3, • Thiru.S.Elumalai, Rough Stone 303940 m^3
Operational Hours Per Year	2400
Activity Rate, t/hr.	389.53
Emission of dust, g/t.	0.37
Emission of dust, g /hr.	98.45
Area of influence, m ²	629
Uncontrolled emission rate g/s/m ²	0.00059543
Controlled emission rate, PM10 g/s/m ²	0.0005954
Controlled emission rate, PM2.5 g/s/m ²	0.0002498

Line Source – Transport of Rough Stone (Cluster)

Quantity, m ³	Proposed queries: • M/s RRM Transport, Rough Stone:146666 m^3 • M/s Kavery stone crusher, Rough Stone: 106725 m^3 • M/s. Perambalur quality minerals, Rough Stone: 176669 m^3 • M/s. GKP Transport, Rough Stone 84061 m^3, • M/s. Rajakaliamman mines, Rough Stone 94230 m^3 • M/s. Kamarajrajashree mines, Rough Stone 94230 m^3 Cluster existing queries: • Thiru.N.Premkumar, Rough Stone 281140 m^3, • Thiru.C.Murugesan Rough Stone 256950 m^3, • Sri.Vinayaka Minerals, Rough Stone 714575 m^3, • M/s. SS mines and Minerals, Rough Stone 264750 m^3, • Thiru.K.Ganeskaran, Rough Stone 150240 m^3, • Thiru.S.Elumalai, Rough Stone 303940 m^3
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	117895
Lead length/trip, Km	0.28

FIG 4.2 Isopleth of GLC Prediction for PM_{2.5}

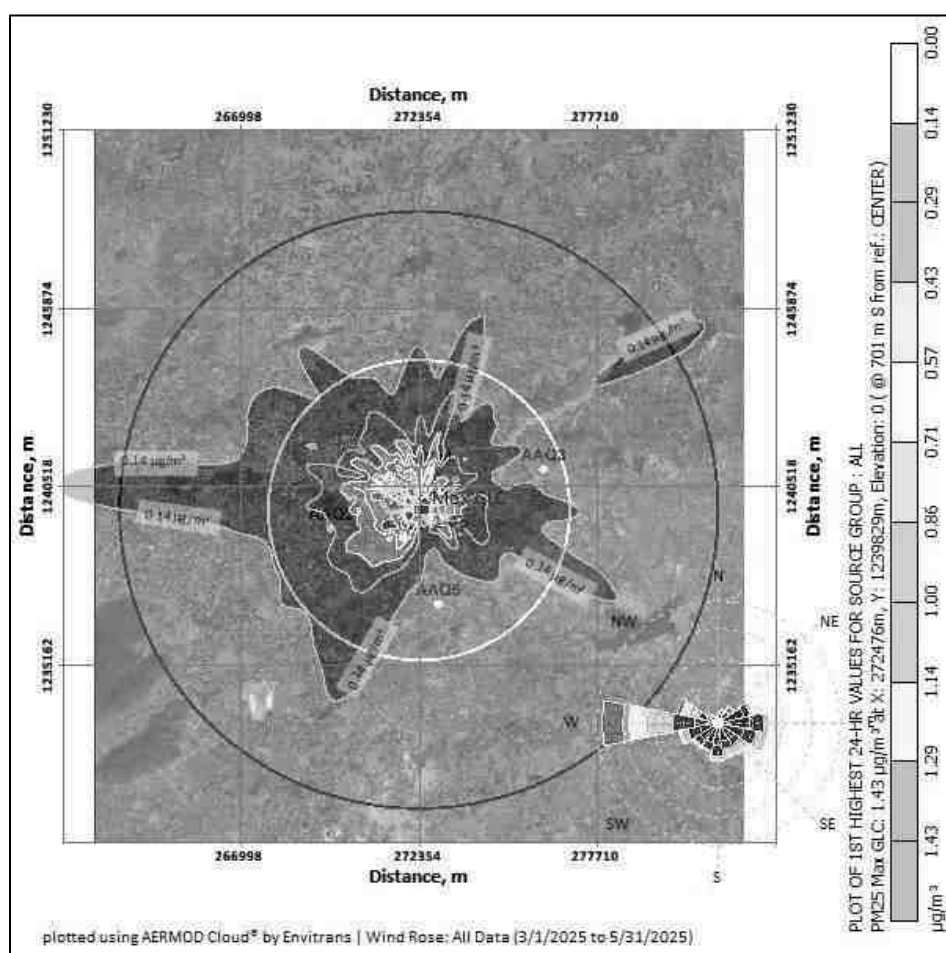
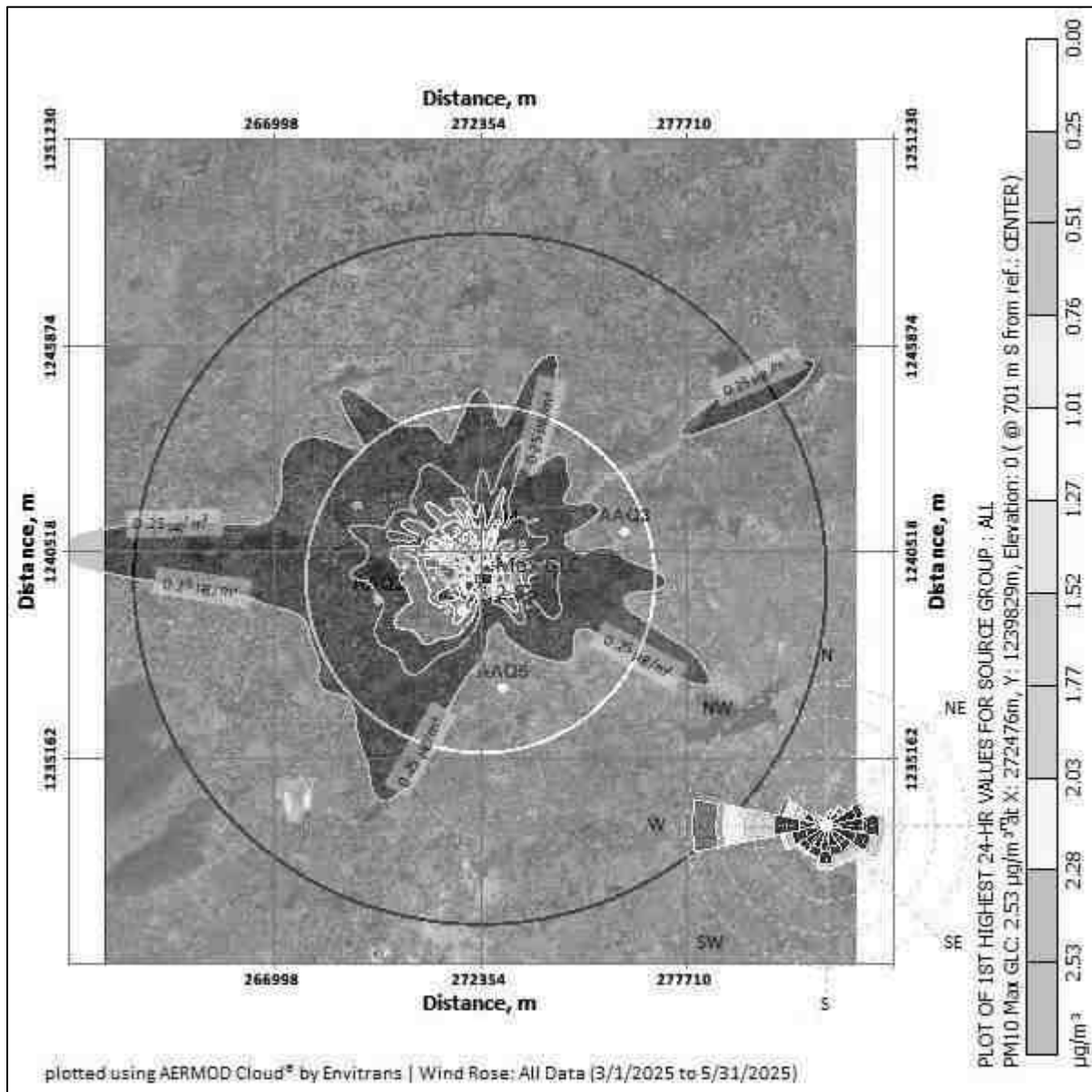


FIG 4.3 Isopleth of GLC Prediction for PM₁₀



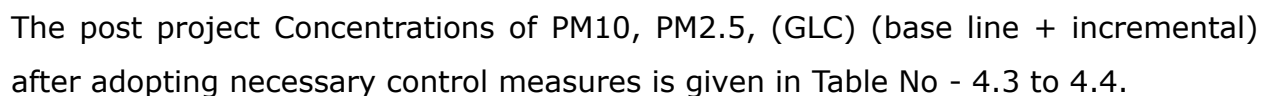


Table 4.3 Concentrations of PM2.5 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in $\mu\text{g}/\text{m}^3$
1	Project site core zone	32.2	1.43	33.63	60
2	Thoramangalam village	26.4	1.29	27.69	
3	Near Perali village	24.7	1.14	25.84	
4	Kavulpalayam village	26.5	1.00	27.5	
5	Kalpadi village	22.9	0.86	23.76	
6	Neduvasal village	24.9	0.71	25.61	

Table 4.3a Cluster Concentrations of PM2.5 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in $\mu\text{g}/\text{m}^3$
1	Project site core zone	32.2	2.29	34.49	60
2	Thoramangalam village	26.4	2.06	28.46	
3	Near Perali village	24.7	1.83	26.53	
4	Kavulpalayam village	26.5	1.60	28.1	
5	Kalpadi village	22.9	1.37	24.27	
6	Neduvasal village	24.9	1.15	26.05	

Table 4.3b Concentrations of PM10 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in $\mu\text{g}/\text{m}^3$
1	Project site core zone	68.1	2.53	70.63	100
2	Thoramangalam village	56	2.28	58.28	
3	Near Perali village	54	2.03	56.03	
4	Kavulpalayam village	56.4	1.77	58.17	
5	Kalpadi village	49.05	1.52	50.57	
6	Neduvasal village	53.65	1.27	54.92	

Table 4.3c Cluster Concentrations of PM10 after Project Implementation

SL. No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in $\mu\text{g}/\text{m}^3$
1	Project site core zone	68.1	3.92	72.02	100
2	Thoramangalam village	56	3.53	59.53	
3	Near Perali village	54	3.14	57.14	
4	Kavulpalayam village	56.4	2.74	59.14	
5	Kalpadi village	49.05	2.35	51.4	
6	Neduvasal village	53.65	1.96	55.61	

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 $50.57 \mu\text{g}/\text{m}^3$ to $70.63 \mu\text{g}/\text{m}^3$ and for $\text{PM}_{2.5}$ are in the range of $23.76 \mu\text{g}/\text{m}^3$ to $33.63 \mu\text{g}/\text{m}^3$ and PM_{10} are surrounding area range of $51.4 \mu\text{g}/\text{m}^3$ to $72.02 \mu\text{g}/\text{m}^3$ and for $\text{PM}_{2.5}$ are in the range of $24.27 \mu\text{g}/\text{m}^3$ to $34.49 \mu\text{g}/\text{m}^3$ 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	90
2	Excavator Operation	86
3	Trucks movement	82
4	Drilling	96
5	Blasting	102

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 villages Thoramangalam Village, Perali Village, Kavulpalayam Village, Kalpadi Village and Neduvasal Village, the values are given below.

TABLE 4.4 Noise Levels in Monitoring Locations				
S. No.	Location	Distance and direction from Mine lease area	Day Equivalent (in dBA)	Night Equivalent (dBA)
1	Project site core zone	-	52.2	39.7
2	Thoramangalam village	2.88 km W	50.1	38.4
3	Perali village	4.32 km NE	49.2	42
4	Kavulpalayam village	1.36 km N	48	41.2
5	Kalpadi village	3.13 km S	45.2	37.6
6	Neduvasal village	1.00 km SW	49.5	43.4

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

The lease area is Government poramboke land. The proponent has planned to spend INR 3,00,000 for CER activities.

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 25 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 4.5 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 0.5 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 hoses. 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.

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 all around the quarry, connected to settling tank.
- Cleaning of drain periodically to prevent siltation
- Utilizing the rainwater harvested in the mine pit to meet the water requirement of the project.

The average annual rainfall of the area is 816mm. Taking into consideration of 0.35 as runoff co-efficient for mining area

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 8 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Assistant Director, Dept. of Geology & Mining, Perambalur vide Rc.No. No.104/G&M/2025, dated 06.06.2025.

- 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 II.

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.

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			
Sl.No.	Description of Parameters	Parameters	Frequency
1	Air	Air Quality for SPM, PM-10, PM-2.5, SO ₂ and NO _x	24-hour average samples Once in a 3 month.
2	Water	General, Physical, and chemical parameters	Once per season
3	Noise	Leq, L _{max} , L _{min} , Leq Day & Leq Night dB(A)	8-hour average samples Once in a 3 month.
4	Soil	Physical and Chemical characteristics.	Once per season

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 – 3.5, 3.12, 3.13 & 3.14.

6.1.5 MEASUREMENT METHODOLOGY

(a) Ambient Air Quality

Ambient air quality will be monitored for SO₂, NO_x, PM₁₀ 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

Activities	Mitigation Measure	Capital cost	Recurring Cost per Annum
Air Environment	Compaction, gradation and drainage on both sides for Haulage Road	0.05	0.05
	Fixed Water Sprinkling Arrangements + Water sprinkling by own water tankers	5.00	0.25
	Muffle blasting – To control fly rocks during blasting	0.00	0.05
	Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit	0.20	0.04
	No overloading of trucks/tippers/tractors	0.00	0.05
	Stone carrying trucks will be covered by tarpaulin	0.00	0.10
	Enforcing speed limits of 20 km/hr within ML area	0.06	0.01
	Regular monitoring of exhaust fumes as per RTO norms	0.00	0.05
	Regular sweeping and maintenance of approach roads for at least about 200 m from ML Area	0.00	0.20
	Installing wheel wash system near gate of quarry	2.00	0.05
Sub-Total (A)		7.31	0.85

Noise Environment	Provision for Portable blaster shed	0.30	0.02
Sub-Total (B)		0.30	0.02
Waste Management	Provision for domestic waste collection and disposal through authorized agency	0.20	0.10
	Installation of dust bins	0.05	0.02
Sub-Total (C)		0.25	0.12
Mine Closure	Plantation inside ML area (55 Nos.)	0.06	0.01

Sub-Total (D)		0.06	0.01
Implementation of EC, Mining Plan & DGMS Condition	Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN	0.05	0.01
	Air, Water, Noise and Soil Quality Sampling every 6 Months for Compliance Report of EC Conditions	0.00	0.50
	Workers will be provided with Personal Protective Equipment's	0.25	0.03
	Health checkup for workers will be provisioned	0.00	0.13
	First Aid facility Provision	0.00	0.01
	Signage & boards for safety precautions	0.05	0.01
	No parking will be provided on the transport routes. Separate provision on the south side of the hill will be made for vehicles / HEMMs. Flaggers will be deployed for traffic management	0.10	0.01
	Installation of CCTV cameras in the mines and mine entrance	0.15	0.02
Sub-Total (E)		0.60	0.71
Grant Total (A+B+C+D+E)		8.52	1.71
Total EMP Cost for 5 years is 17.97 lakhs i.e., Rs.8.52 Lakhs of Capital Cost + Rs.9.45 Lakhs of Recurring Cost			

The proposal for Corporate Environment Responsibility (CER) activities is given as follows;

S. No.	PROPOSED CER ACTIVITIES	COST IN LAKHS.
1	Plantations inside and outside the school premises	3.0
2	Providing A4 papers, Scanner cum printer and Painting the school building	
Total		3.0

The above proposed CER cost will be spent on Government Adi Dravidar Welfare High

School, Kalpadi (North) Village and I assure you that the proposed CER activities will be completed before the commencement of quarrying operations.

The total project cost is as given below:

Fixed Cost		
Tender amount	:	Rs.209 Lakhs
First Aid Room	:	Rs.1.000 Lakh
Rest Shelter	:	Rs.1.000 Lakh
Sanitary Facility	:	Rs.1.000 Lakh
Total (A)– Rs. 212 Lakhs		
Operational Cost		
Machineries	:	Rs.50.000 Lakhs
Fencing cost	:	Rs.1.500 Lakhs
Total (B) – Rs. 51.50 Lakhs		
EMP Cost		
Air Environment, Noise Environment, Mine Closure, Implementation of EC, Mining Plan & DGMS Condition	:	Total(C)–Rs.17.97 Lakhs
CER Cost		
Plantation, Providing A4 papers, Scanner cum printer and Painting the school building	:	Total (F)– Rs.3.00 Lakhs
Grand Total (A+B+C+D+E+F)	:	R. 284.47 Lakhs

CHAPTER 7

ADDITIONAL STUDIES

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

- Public consultation
- Risk Assessment
- Social Impact Assessment, R&R Action Plans
- Cumulative Environmental Impact Assessment Study
- A detailed Hydrogeological Study
- Slope Stability plan

7.1 PUBLIC CONSULTATION

After the preparation of the draft EIA/EMP report, it must be submitted to the State Pollution Control Board. A public consultation will be conducted on behalf of the Pollution Control Board through the District Collector and the officials from the PCB. A prior notice must be issued about the event, along with the time and date, in two leading newspapers. The opinions, suggestions, demands, and objections of people, NGO environmentalists, etc. are sought, and the proceedings are recorded. The replies of the proponent and corresponding officials will be recorded in the final EIA/EMP report.

7.2 RISK ASSESSMENT & MANAGEMENT

(a) Objectives

Risk assessment is a method in which possible threats/hazards which may arise during mining operations are identified so that adequate machinery/equipment are made available in precaution. The objectives of environmental risk assessment are governed by the following, which excludes natural calamities:

- ✚ To identify the potentially hazardous areas so that necessary design safety measures can be adopted to minimize the probability of accidental events.

- ✚ To identify the potential areas of environmental disaster which can be prevented by proper design of the installations and its controlled operation.
- ✚ To manage the emergency situation or a disastrous event, if any, from the mining operation.

The major hazards related to the mining activities are as follows

- ✚ Open cast bench slope failure
- ✚ Accident due to fall of quarry sides
- ✚ Accident due to machineries
- ✚ Accident due to explosives
- ✚ Accident due to large block cutting, separation and loading

Some of the common hazards are identified and the corresponding precautionary measures are drafted.

Table 7.1 Hazards and Precautionary measures		
S.No.	Hazard	Precautionary measures
1	Fire	Fire suppressants will be made available at mines office and explosive storage room.
2	Explosion	Controlled blasting will be done. DGMS norms will be strictly followed during blasting. Blasting will be done only by trained professionals.
3	Combustion of chemicals or hazardous substances	Combustible Substances are stored with all precautionary measures. Fire suppressant is made available at storage site
4	Landslide	Width, height and slope will be maintained as suggested by DGMS
5	Accidents during handlings	All vehicles will be properly maintained. Overloading will not be done. Only trained/certified people will be employed.
6	Accidental fall of people or animals	The lease area will be fenced properly. Only people working in the mines will be permitted to enter.

7.3 REHABILITATION AND RESETTLEMENT (R & R) PLAN

No land is acquired from people dwelling in the area. The lease area is an uninhabited land. No R & R plan is proposed.

7.3.1 CUMULATIVE ENVIRONMENTAL IMPACT ASSESSMENT STUDY

The details of other quarries located within the 500m radius of this project are provided below:

Table 7.2 Cluster Mines Details				
S.No	Name of the Quarry Owner	S.F. Nos	Lease Period	Area
a. Existing Quarry				
1.	Thiru.N.Premkumar S/o Narayanasamy, No 144/2 East street, Venkatramanapuram Ariyalur-621705	328/2 (Block 28) Kalpadi north Village Perambalur Taluk	30.06.2021 to 29.06.2026	1.00.0 Ha
2.	Thiru.C.Murugesan S/o Thiru.Chinnappan Kaliyamman nagar, Kavulpalayam Perambalur	328/2 (Block 24) Kalpadi north Village Perambalur Taluk	30.12.2021 to 29.12.2026	1.00.0 Ha
3	Sri.Vinayaka Minerals No.9 5 th street,Nandanam extension, Chennai 600035	328/2 (Block 8) Kalpadi north Village Perambalur Taluk	05.07.2022 to 04.07.2027	2.00.0 Ha
4	M/s. SS Mines and Minerals No.1/189-A, 5 th street, Vasan city, Somarasampettai, Srirangam taluk, Trichy district-620102	328/2 (Block 17) Kalpadi north Village Perambalur Taluk	05.02.2022 to 04.07.2027	1.00.0 Ha
5.	Thiru.K.Ganeskaran S/o krishnasamy No.97 Venkadajalapathi nagar, new stand perambalur dist	328/2 (Block 4) Kalpadi north Village Perambalur Taluk	05.07.2022 to 04.07.2027	1.00.0 Ha
6	Thiru.S.Elumalai s/o Sengodan Naranamanagalam, Alathur taluk Perambalur 621109	328/2 (Block 6) Kalpadi north Village Perambalur Taluk	22.08.2022 to 21.08.2027	1.00.0 Ha
b. Proposed Quarry				
1.	M/s RRM Transport 1/303, Ariyalur Main road, Kavulpalayam, Perambalur-621220	328/2 (Block 36) Kalpadi north Village	-	1.00.0 Ha
2.	M/s.Kavery stone crusher 110/1B, Mauruvathur main road, Perali village Kunnam taluk, Perambalur -621708	328/2 (Block 31) Kalpadi north Village	-	1.10.0 Ha
3	M/s. Perambalur quality minerals 238/1A3, Arumalai road, Sengunam, Perambalur 621220	328/2 (Block 35) Kalpadi north Village	-	1.50.0 Ha

4.	M/s. GKP Transports 174C, 1 st Main road, New colony, Thuraimangalam, Perambalur - 621220	328/2 (Block 37) Kalpadi north Village	-	1.00.0 Ha
5.	M/s.Sri Rajakaliamman mines and Minerals 2/151, Kaliyamman nagar, kavulpalayam, Thuraimangalam, Perambalur- 621220	328/2 (Block 34) Kalpadi north Village	-	1.00.0 Ha
6	M/s. C.Kamarajrajashree mines and Minerals 262/1, Trichy main road, Thavuthaikulam,Ariyalur -621705	328/2 (Block 38) Kalpadi north Village	-	1.00.0 Ha
C. Expired quarries				
1	Thiru.D.Madhubalan s/o Duraisamy No.2/29 Mariyamman Kovil street, kai kalathur post, Veppanthattai taluk,Perambalur district- 621117	328/2 (Block 3) Kalpadi north Village	28.11.20218 to 27.11.2023	1.00.0 Ha
d.Abandoned quarries				
Nil				
Total Area Under Cluster			13.06.0 Ha	

A cumulative impact of these two proposed quarries has been studied and the details are given in Chapter IV.

Table 7. 3 Salient Features of Proposed Quarries

Description		P1	P2	P3	P4	P5	P6
Name of the Quarry		M/s. RRM Transport	M/s. Sri Rajakaliaman Mines and Minerals	M/s.Kavery stones crusher	M/s. Perambalur Quality Minerals	M/s. GKP Transports	M/s.C.Kamarajrajashree Mines and Minerals
Geological Resources in m ³	Rough stone	338466 m ³	4,93,310 m ³	4,44,937m ³	7,31,320 m ³	329671	439430
Mineable Reserves in m ³	Rough stone	146666 m ³	1,93,480 m ³	2,23,442 m ³	2,98,179 m ³	139511	159860
Proposed production plan	Rough stone	146666 m ³	94,230 m ³	1,06,725m ³	1,76,669 m ³	84061	70885
Production in Ts	Peak Production – rough stone	80,960 Ts	52,937.5 Ts	123,818.75 Ts	202,892.25 Ts	46,571.25 Ts	41,593.75 Ts
Total Production per day in tons		270	176	413	676	155	138
Lorry Loads per day in Nos	-	27	18	42	68	16	14
Employment in Nos		25	25	27	30	25	25
Proposed Depth in meters		41m AGL	31m AGL (5 Years) & 56m AGL (10 Years)	46m AGL	56m (AGL)	61 m (41 m AGL + 20 m BGL)	36m AGL
Status of the quarry		Proposed	Proposed	Proposed	Proposed	Proposed	Proposed

Table 7. 3 Salient Features of Existing Quarries

Description		P7	P8	P9	P10	P11	P12
Name of the Quarry		Thiru.N.Pr emkumar	Thiru.C.Muruges an	M/s.Sri VinayakaMi nerals	M/s. SS mines and Minerals	Thiru.K.Ganes karan	Thiru.S.Elumal ai
Geological Resources	Rough stone	3,99,640 m ³	6,75,950 m ³	11,99,575 m ³	772000 m ³	749175 m ³	785830 m ³
Mineable Reserves	Rough stone	3,21,890 m ³	2,56,950 m ³	7,14,575 m ³	264750 m ³	150240 m ³	303940 m ³
Production plan	Rough stone	2,81,140 m ³	2,56,950 m ³	7,14,575 m ³	264750 m ³	150240 m ³	303940 m ³
Production in Ts	Peak Production – rough stone	2,33,750 Ts	1,63,350 Ts	4,19,375 Ts	1,54,000 Ts	47,025 Ts	1,99,677.5 Ts
Total Production per day in tons		779	544	1398	513	157	665
Lorry Loads per day in Nos -		78	54	70	25	16	33
Employment in Nos		25	36	45	22	22	41
Proposed Depth in meters		41m BGL	60 m (40 m AGL + 20 m BGL)	71 m (31 m AGL + 40 m BGL)	50m (20m AGL + 30 BGL)	40m (15m AGL and 25m BGL)	60m (35m AGL and 25m BGL)
Status of the quarry		Existing	Existing	Existing	Existing	Existing	Existing

Cumulative Impact on Traffic

The mined-out minerals will be transported by means of trucks to the consumers like crusher units for producing stone aggregates of different sizes or construction of roads, bridges, buildings and other buyers etc. The cumulative impact on traffic due to transportation of minerals from these twelve leases (6 Existing + 6 Proposed) are provided below:

Table 7. 4 – Impact on Traffic

Mineral Transportation			
Production Per day in tons			
Quarry	Quarry Name	Total Mineral in tons per day	No. of Lorry Load per day
P1 (Proposed)	M/s. RRM Transport	270	27
P2 (Proposed)	M/s. Sri Rajakaliamman Mines and Minerals	176	18
P3 (Proposed)	M/s.Kavery stones crusher	413	21
P4(Proposed)	M/s. Perambalur Quality Minerals	676	34
P5(Proposed)	M/s. GKP Transports	155	16
P6(Proposed)	M/s.C.Kamarajrajashree Mines and Minerals	138	14
Total		1828	130

Since the existing quarries (6 Nos.) are already integrated into the current traffic flow, the incremental traffic volume has been calculated considering only the proposed quarries. Accordingly, the proposed projects are expected to generate 130 trips per day. Traffic density study details are elaborated in chapter 2.

7.3.2 SLOPE STABILITY STUDY

The proposed quarry is a very small quarry and the production is also less. Opencast mechanized mining with a bench height of 5m and bench width of 5m and 45° Slope is proposed. The depth of mining is proposed as 66m (41m above ground level and 25m below ground level which is the ultimate pit limit. Also, there is no overburden since the entire mined out material will be utilized.

As far as technical factors are concerned, the following precautionary measures will be adopted:

- Strict adherence to DGMS norms
- Frequent inspection by Mines-in-charge/Mines Manager
- Bench height, width, slope will be as per DGMS norms

7.3.3 DISASTER MANAGEMENT PLAN

Proper preventive mechanism exists already in the mines.

- Precautionary measures are well explained to all staff by the mines in-charge.
- PPE necessary for all staff are available in the quarry. No person is allowed to enter inside without PPE. Avoiding quarrying during unfavorable environmental conditions.
- Carrying out safe blasting by following DGMS norms
- Safety equipment like fire extinguisher, first aid kit, etc are present in the mine.
- Proper maintenance of machinery used for mining
- In case of any emergency, the contact numbers of mines in-charge, mines manager, Management contact are available in the mine's office.

7.3.4 MINE CLOSURE PLAN

The quarrying operation is proposed up to a depth of 66m (41m above ground level and 25m below ground level only, which will be achieved in 5 years. The ultimate pit dimension will be length 123 m x Width 75 m x Depth 66m (41m above ground level and 25m below ground level. After completion of quarrying operation, the mined-out pit will be left as rain water harvesting pond. The quarry will be properly fenced with barbed wire.

CHAPTER 8

PROJECT BENEFITS

INTRODUCTION

M/s RRM Transport has proposed Rough stone quarry over an extent of 1.00.0 ha located at S.F.No. 328/2 (Block-36) over an extent of 1.00.0 Ha., in Kalpadi (North), Perambalur Taluk, Perambalur District Tamil Nadu State.

PROJECT BENEFITS

Project benefits are attributed in various ways as under:

- Environment Benefits
- Employment Potential: Skilled, Semi-skilled & Un-skilled
- Economic Benefits
- Social Benefits

8.1 IMPROVEMENTS IN THE PHYSICAL INFRASTRUCTURE

The project area is located on Government poramboke 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.

8.2 IMPROVEMENTS IN THE SOCIAL INFRASTRUCTURE

The proposed project will help in improving the socio-economic status of the near-by villages by generating direct or indirect employment opportunities. Substantial amount of indirect revenue will be generated by transportation activities along with employment e.g. labour, helper etc.

ECONOMIC BENEFITS:

The execution of proposed mine will boost the economy of the area by creating direct & indirect jobs for locals. There will be a positive cumulative impact of the project on the economy.

8.3 EMPLOYMENT POTENTIAL: SKILLED, SEMI-SKILLED & UN-SKILLED

The mining M/s RRM Transport, will create direct employment opportunity for 25 local people. As per MOEF & CC Notification CER cost is arrived for an amount of 3 Lakhs, it will be utilized as per the CER letter received from the competent authority.

8.4 OTHER TANGIBLE BENIFITS

The mine management will recruit semi-skilled & unskilled eligible workers from the nearby villages depending upon requirement in the mines and the eligibility, qualification and experience of local persons.

The overall effect will result in higher standard of living viz. better education, improved health and sanitation facilities, housing and acquisition of consumer durables. Housing, transport, medical, educational and other civic amenities will get improved in the future. This is envisaged as a major positive benefit.

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. TO25B0108TN5925656N, dated 30.09.2025 for the proposed project, the 'Environmental Cost Benefit Analysis' is not prescribed.

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 assess the impact due to the mining activities and the efficacy of the adopted air pollution control measures.
	Afforestation for control of dust.
Surface water	There is the Kottarai stream at a distance of 0.80 km (SW) Adequate safety distance is left. No dumping of material or discharge will be done in or near the river or water body.
	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 66m (41m above ground level and 25m below ground level), Water table is found at a depth of 70 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 0.5 KLD will be treated in septic tank with soak pit.

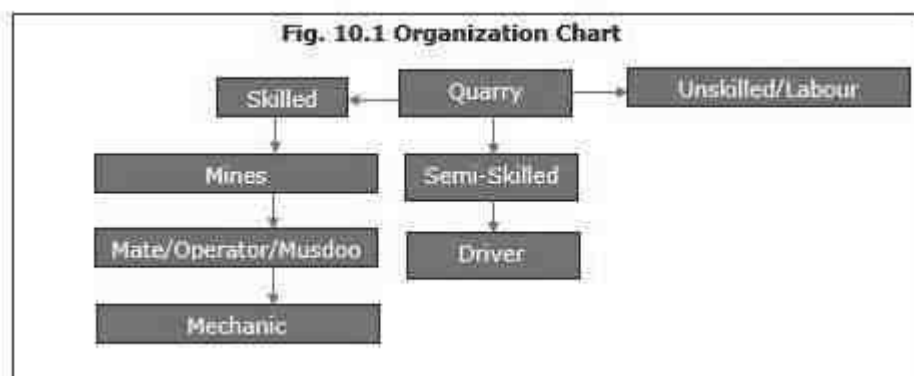
	Conduct ground water and surface water monitoring for parameters specified by CPCB
Noise	The workers employed are provided with protection equipment, earmuffs and ear-plugs for the protection from high noise level generated at the mine site wherever required.
	Noise levels are controlled by using optimum 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 assess 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.
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.



1	Skilled	Mines Manager(II Class)	1 No
		Foreman/Mine Mate	2 Nos
		Operator	6 Nos
		Mechanic	1 No
2	Semi-Skilled	Diver	3 Nos
3	Un-skilled	Labours	12 Nos
Total			25 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. M/s.RRM Transport 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

Activities	Mitigation Measure	Capital cost	Recurring Cost per Annum
Air Environment	Compaction, gradation and drainage on both sides for Haulage Road	0.05	0.05
	Fixed Water Sprinkling Arrangements + Water sprinkling by own water tankers	5.00	0.25
	Muffle blasting – To control fly rocks during blasting	0.00	0.05
	Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit	0.20	0.04
	No overloading of trucks/tippers/tractors	0.00	0.05
	Stone carrying trucks will be covered by tarpaulin	0.00	0.10
	Enforcing speed limits of 20 km/hr within ML area	0.06	0.01
	Regular monitoring of exhaust fumes as per RTO norms	0.00	0.05
	Regular sweeping and maintenance of approach roads for at least about 200 m from ML Area	0.00	0.20

	Installing wheel wash system near gate of quarry	2.00	0.05
Sub-Total (A)		7.31	0.85
Noise Environment	Provision for Portable blaster shed	0.30	0.02
Sub-Total (B)		0.30	0.02
Waste Management	Provision for domestic waste collection and disposal through authorized agency	0.20	0.10
	Installation of dust bins	0.05	0.02
Sub-Total (C)		0.25	0.12
Mine Closure	Plantation inside ML area (55 Nos.)	0.06	0.01
Sub-Total (D)		0.06	0.01
Implementation of EC, Mining Plan & DGMS Condition	Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN	0.05	0.01
	Air, Water, Noise and Soil Quality Sampling every 6 Months for Compliance Report of EC Conditions	0.00	0.50
	Workers will be provided with Personal Protective Equipment's	0.25	0.03
	Health checkup for workers will be provisioned	0.00	0.13
	First Aid facility Provision	0.00	0.01
	Signage & boards for safety precautions	0.05	0.01
	No parking will be provided on the transport routes. Separate provision on the south side of the hill will be made for vehicles / HEMMs. Flaggers will be deployed for traffic management	0.10	0.01
	Installation of CCTV cameras in the mines and mine entrance	0.15	0.02
Sub-Total (E)		0.60	0.71
Grant Total (A+B+C+D+E)		8.52	1.71
Total EMP Cost for 5 years is 17.97 lakhs i.e., Rs.8.52 Lakhs of Capital Cost + Rs.9.45 Lakhs of Recurring Cost			

The proposal for Corporate Environment Responsibility (CER) activities is

given as follows;

S. No.	PROPOSED CER ACTIVITIES	COST IN LAKHS.
1	Plantations inside and outside the school premises	3.0
2	Providing A4 papers, Scanner cum printer and Painting the school building	
Total		3.0

The above proposed CER cost will be spent on Government Adi Dravidar Welfare High School, Kalpadi (North) Village and I assure you that the proposed CER activities will be completed before the commencement of quarrying operations.

The total project cost is as given below:

Fixed Cost		
Tender amount	:	Rs.209 Lakhs
First Aid Room	:	Rs.1.000 Lakh
Rest Shelter	:	Rs.1.000 Lakh
Sanitary Facility	:	Rs.1.000 Lakh
Total (A)– Rs. 212 Lakhs		
Operational Cost		
Machineries	:	Rs.50.000 Lakhs
Fencing cost	:	Rs.1.500 Lakhs
Total (B) – Rs. 51.500 Lakhs		
EMP Cost		
Air Environment, Noise Environment, Mine Closure, Implementation of EC, Mining Plan & DGMS Condition	:	Total(C)–Rs.17.97 Lakhs
CER Cost		
Plantation, Providing A4 papers, Scanner cum printer and Painting the school building	:	Total (F)– Rs.3.00 Lakhs
Grand Total (A+B+C+D+E+F)	:	R. 284.47 Lakhs

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 17.97 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

M/s RRM Transport Lessee, has obtained Precise Area communication letter from the Assistant Director, Department of Geology and Mining, Perambalur to quarry out Mineable reserves of 4,03,331.50 Ts (1,46,666 m³) of Rough Stone for 5 years upto a depth of 66m (41m above ground level and 25m below ground level). Existing depth 41m reached. Over an extent of 1.00.0 ha., located at the Survey No. 328/2 (Block-36) over an extent of 1.00.0 Ha., in Kalpadi (North), Perambalur Taluk, Perambalur District, Tamil Nadu State, Tamil Nadu State.

As per EIA notification, 2006 and its subsequent amendments the proposed "Rough stone Quarry of M/s RRM Transport 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. TO25B0108TN5925656N, dated 30/09/2025 This report has been prepared in line with the approved TOR for production of maximum excavation of 1,46,666 m³ of Rough Stone.

Sl. No.	Description	Status/Remarks
1.	Sector	Non-coal mining
2.	Category of the project	B1
3.	Proposed mineral	Rough stone quarry
4.	Type of Lease	The applied area was previously operated by some other lessee (Thiru.M.T.M. Dhandapani) prior to the year 2016. CCR is not applicable.
5.	Extent of the lease	1.00.0 Ha
6.	Proposed depth of mining	66m (41m above ground level and 25m below ground level). Existing depth 41m reached
7.	Method of mining	Opencast mechanized.
8.	Proposed lease period	5 Years
9.	Proposed Environmental Clearance	5 Years

10.	Mineable reserves (upto 66m (41m above ground level and 25m below ground level)	146666 m3 Rough stone
11.	Proposed production quantity for five years (upto 66m (41m above ground level and 25m below ground level))	146666 m3 Rough stone

The Lessee M/s.RRM Transport is an Proprietorship firm 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

The proposed project site is located in Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State and its Latitude: 11°13'15.95"N to 11°13'20.52"N and Longitude: 78°54'52.38"E to 78°54'55.92"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. The strike of the Charnockite formation is N30°W-S30°E with vertical dipping.

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 66m (41m above ground level and 25m below ground level). The geological reserves are estimated to be **338466** m3 of Rough Stone. The mineable reserve calculated by deducting 10m safety distance and bench loss. The mineable reserves are **146666** m3 of Rough Stone a which will be recovered at the rate of 100% recovery upto a depth of 66m (41m above ground level and 25m below ground level).

- It is proposed to quarry out rough stone with 5m bench height, 5m width with 70° 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.

Salient features of the project		
S.No.	Type of Detail	Description
1	Sector	1(a) Non coal mining
2	Fresh/Existing project	Existing
3	Category	B1
4	Nature of mineral	The applied area was previously operated by some other lessee (Thiru.M.T.M. Dhandapani) prior to the year 2016. CCR is not applicable.
5	Life of the mine	5 years
6	Geological reserves	9,30,781.50 Ts Rough stone
	Mineable reserves (upto 66m (41m above ground level and 25m below ground level)	4,03,331.50 Ts Rough stone (1,46,666 m3)
	Proposed production quantity for five years 66m (41m above ground level and 25m below ground level)	4,03,331.50 Ts Rough stone (1,46,666 m3)
7	Waste generation and management	Nil
8	Existing depth	41m AGL
9	Bench height and width	Proposed bench height & width is 5.0m respectively and number of proposed benches is 9+1 Nos.
10	Ultimate pit depth	66m (41m above ground level and 25m below ground level)
11	End use	The excavated Rough Stone is used for construction industries for Government & Public sector projects besides catering domestic housing and infrastructure projects in and around the district.

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 requirement, 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 117333 L of HSD for entire life of the project.
3	Manpower requirement	This project will give employment opportunities to 25 people
4	Financial requirement	The total project cost as per PFR will be INR . 284.47 Lakhs including Operational cost, Fixed Asset cost and EMP cost
5	Funds for Socio economic development	INR 3 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,	Water bodies	Distance	Direction
		Kottarai Dam	8.99 Km	SE
		Kottarai stream	0.80 Km	SW
		K.Eriyur lake	1.60 km	SE
		Avvaiyar nagar village pond	1.98 km	NW
		Thuraimangalam lake	2.0 km	NE

		Vellathangiyamman pond	5.41 km	NW
		Sirugudal lake	8.00 km	SW
B	Coastal zone, biospheres,	Nil within 10km radius		
C	Mountains, forests	Chittali R.F – 3.00 km (NE), Kunnam R.F – 5.50 km (SE)		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 15km radius		
4	Inland, coastal, marine or underground waters	Nil within 15km radius		
5	State, National boundaries	Nil within 15km radius		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 15km radius		
7	Defense installations	Nil within 15km radius		
8	Densely populated or built-up area	Densely Populated Perambalur-3.42km (NW)		
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Densely Populated Perambalur-3.42km (NW)		
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 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 6 locations and the results are given below.

Table 11.2: Details Of Ambient Air Quality Monitoring Locations				
S. No.	Station Code	Locations	Distance & Direction	Coordinates
1	AAQ 1	Project site core zone	-	11°13'19.84"N 78°54'54.62"E
2	AAQ 2	Thoramangalam village	2.88 km W	11°13'2.82"N 78°53'17.32"E
3	AAQ 3	Near Perali village	4.32 km NE	11°14'3.56"N 78°57'8.70"E
4	AAQ 4	Kvulpalayam village	1.36 km N	11°14'0.21"N 78°55'5.40"E
5	AAQ 5	Kalpadi village	3.13 km S	11°11'34.74"N 78°55'12.96"E
6	AAQ6	Neduvasal village	1.00 km SW	11°12'46.98"N 78°54'36.18"E

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

Station ID	Min	Max	Avg.
Particulate matter PM-2.5 ($\mu\text{g}/\text{m}^3$)			
AAQ-1	26.8	37.6	32.2
AAQ-2	23.3	29.5	26.4
AAQ-3	21.9	27.6	24.7
AAQ-4	22.7	30.3	26.5
AAQ-5	20.2	25.6	22.9
AAQ-6	21.9	28.0	24.9
CPCB NAAQS 2009 for PM_{2.5} - 60 $\mu\text{g}/\text{m}^3$			
Particulate matter PM-10 ($\mu\text{g}/\text{m}^3$)			
AAQ-1	56.8	79.4	68.1
AAQ-2	49.6	62.4	56
AAQ-3	48.6	59.4	54
AAQ-4	50.7	62.1	56.4
AAQ-5	43.9	54.2	49.05
AAQ-6	47.2	60.1	53.65
CPCB NAAQS 2009 for PM₁₀ - 100 $\mu\text{g}/\text{m}^3$			
Sulphur Di-oxide as SO₂ ($\mu\text{g}/\text{m}^3$)			
AAQ-1	5.7	8.2	6.95
AAQ-2	5.9	8.3	7.1
AAQ-3	6.7	8.9	7.8
AAQ-4	5.1	7.4	6.25
AAQ-5	4.4	7.0	5.7
AAQ-6	4.6	6.3	5.45
CPCB NAAQS 2009 for SO₂ - 80 $\mu\text{g}/\text{m}^3$			
Oxide of Nitrogen as NO₂ ($\mu\text{g}/\text{m}^3$)			
AAQ-1	9.2	11.4	10.3
AAQ-2	7.9	10.1	9

Station ID	Min	Max	Avg.
AAQ-3	8.7	11.3	10
AAQ-4	8.1	10.6	9.35
AAQ-5	7.3	9.6	8.45
AAQ-6	6.7	9.3	8
CPCB NAAQS 2009 for NO ₂ – 80 µg/m ³			

11.2.2 WATER ENVIRONMENT

Table 11.3 Results of Ground Water sampling Analysis in 6 locations							IS:10500: 2012	
	W1	W2	W3	W4	W5	W6	Desira ble	Permis sible
Odour	Agreeabl e	Agreeabl e	Agreeabl e	Agreeabl e	Agreeabl e	Agreeabl e	Agree able	Agreea ble
Turbidity	<1	<1.0	<1.0	<1	<1	<1	Agree able	Agreea ble
pH at 25 °C	7.84	7.76	7.35	7.94	7.68	7.95	6.5 - 8.5	No Relaxat ion
Electrical Conductivity	529.5	1672	1954	2078	1286	2025	-	-
Total Dissolved Solids	318	1005	1180	1250	772	1220	500	2000
Total hardness as CaCO ₃	176	360	392	425	236	390	200	600
Calcium as Ca	42.4	64.8	84.0	102	62.4	86	75	200
Magnesium as Mg	16.8	47.5	43.7	41.0	19.2	42.0	30	100
Calcium as CaCO ₃	106	162	210	254	156	215	-	-
Magnesium as CaCO ₃	70.0	198	182	171	80.0	175	-	-
Total alkalinity as CaCO ₃	154	326	382	384	259	354	200	600
Chloride as Cl ⁻	70.5	365	397	408	272	370	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)	0.2	1.0
Sulphates as SO ₄ ²⁻	52.5	278	348	360	212	345	200	400
Iron as Fe	0.06	0.12	0.09	0.15	0.07	0.06	0.3	No Relaxat ion
Nitrate as NO ₃	BDL(D.L-1.0)	2.87	5.24	5.65	4.79	6.33	45	No Relaxat ion
Fluoride as F	0.16	0.48	0.59	0.62	0.44	0.63	1.0	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)	0.1	0.3

All the values were found to be within permissible limits

11.2.3 NOISE ENVIRONMENT

Noise levels were measured in 6 locations and the results are given below.

Table 11.4 Noise monitoring results

S. No	Location	Day equivalent	Night equivalent	Day equivalent limits by CPCB	Night equivalent limits by CPCB
1	Project site core zone	52.2	39.7	75	70
2	Thoramangalam village	50.1	38.4		
3	Near Perali village	49.2	42.0		
4	Kvulpalayam village	48.0	41.2		
5	Kalpadi village	45.2	37.6		
6	Neduvasal village	49.5	43.4		

11.2.4 SOIL ENVIRONMENT

Soil samples are collected from 6 locations and the results are given below.

Table 11.5 Results of Soil Sample Analysis

S. No	Parameter	Unit	S1	S2	S3	S4	S5	S6
1	pH at 25 °C	-	7.28	8.05	7.59	7.28	7.36	7.59
2	Electrical Conductivity	µmhos/cm	172.5	274.6	190.5	245.6	172.3	284.5
3	Dry matter content	%	95.28	95.14	96.32	89.55	97.39	92.58
4	Water Content	%	4.72	4.86	3.68	10.45	2.61	7.42
5	Organic Matter	%	0.69	0.94	0.82	1.32	0.75	0.82
6	Soil texture	-	Silty Clay loam	Silty Clay	Silty Clay	Clay	Silty Clay	Silty Clay
7	Grain Size Distribution	%	15.57	10.65	8.59	16.47	12.55	10.98
	i. Sand							
	ii. Silt							
9	iii. Clay	%	39.09	45.0	48.65	45.31	44.89	42.5
10	Phosphorous as P	mg/kg	1.44	1.62	1.31	1.76	1.44	1.67
11	Sodium as Na	mg/kg	305	325	346	498	530	422
12	Potassium as K	mg/kg	572	660	732	895	970	638
13	Nitrogen and Nitrogenous Compounds	mg/kg	256	405	146	208	244	306
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)
15	Porosity	%	18.6	19.4	18.20	16.9	18.5	17.9
16	Water Holding Capacity	Inches/foot	41	38	40	44	42	40

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 crow, 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:

Sl.No.	LAND USE / LAND COVER	Area in Sq.Km	Area in Percentage
1	Built-up land	11.2	3.522
2	Crop land	231.11	72.672
3	Existing quarries	4.1	1.289
4	Fallow land	3.05	0.959
5	Hill and forest	13.24	4.163
6	Land with scrub	20.43	6.424
7	Land without scrub	13.77	4.330
8	Plantations	5.15	1.619
9	Salt affected Land	5.32	1.673
9	Water body	10.65	3.349
	Total Area	318.02	100

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 5 villages in the study area namely Thoramangalam village, Near Near Perali, Kavulpalayam village, Kalpadi village and Neduvasal village. 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 and Kalpadi. 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 Government Hospital, Perambalur which is about 5.50 Km NW from the lease area. Major schools with higher secondary and senior secondary schools are located in Perambalur. Facilities like petrol pump stations, ATM facility are available in Perambalur.

11.2.8 HYDROGEOLOGY OF THE LEASE AREA

There is the Kottarai stream at a distance of 0.80 km (SW), K.Eriyur lake – 1.60 km (SE), Avvaiyar nagar village pond – 1.98 km (NW), Thuraimangalam lake – 2.80 km (NE). The hydrological and hydrogeological pattern of the study area is st

udied in detail using satellite imagery.

There are many tanks located in the study area, which are mostly dry throughout the year. These tanks get water only during monsoons. The factors may be monsoon failure, insufficient rainfall, poor rain water management and water consuming patterns.

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 66m (41m above ground level and 25m below ground level). 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 66m (41m above ground level and 25m below ground level). 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, 0.92.5 Ha of lease area will be left as rain water harvesting pond. 0.05.5 Ha will be developed with green belt. For this, plants like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indica are selected.

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 of 0.6m width and 0.3 m depth to the collection pond with silt traps.

Since the mining operation will be limited upto depth of 66m (41m above ground level and 25m below ground level). 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.

Water bodies	Distance	Direction
Kottarai Dam	8.99 Km	SE
Kottarai stream	0.80 Km	SW
K.Eriyur lake	1.60 km	SE
Ariyalur nagar village pond	1.98 km	NW
Thuraimangalam lake	2.0 km	NE
Vellathangiyamman pond	5.41 km	NW
Sirugudal lake	8.00 km	SW

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. For the canal, adequate safety distance is left. The proponent will restrict the mining operation only within the lease and no other work will be carried out near the canal 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 PM₁₀, PM_{2.5}. Other than these pollutants, gaseous emissions of sulfur dioxide (SO₂) 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 10m 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 within 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, Rheumatic 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 17.97 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 25 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 an 17.97 lakhs for the 5 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.

CHAPTER 12

DISCLOSURE OF CONSULTANTS

Global Mining Solutions is a NABET Accredited EIA consultant as per NABET certificate NABET/EIA/2326/IA 0110. 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 an extent 1.00.0 Ha, while total cluster area of 13.60.0 Ha at Kalpadi (North) Village, Perambalur 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


M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

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.**

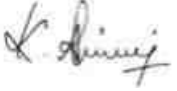
S. No.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and Date
1	AP	Dhanalakshmi Ramanathan	Assessment of existing air quality, Impact of the project on ambient air and suggested mitigation measures for air pollution. <u>Period: March 2025 to May 2025.</u>	R. Dhanak
2	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. <u>Period: March 2025 to May 2025</u>	K. Abirami
3	SHW	Ramadoss N	Assessment of waste generated from the project, suggested waste management practices. <u>Period: March 2025 to May 2025</u>	N. Ramadoss
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. <u>Period: March 2025 to May 2025</u>	K. Sarasvathy
5	EB	Saravanan S	Baseline data collection of related to ecology of the area. <u>Period: March 2025 to May 2025</u>	S. Saravanan
6	HG	Ravinthiran N	Hydrogeological feature of the area. Ground water depth and impact of project on ground water of the area. <u>Period: March 2025 to May 2025</u>	N. Ravinthiran
7	AQ	Srilatha Thiruveedhula	Air quality modeling utilizing the area source model. Predication of the ground level concentration	T. Srilatha

			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>	R. Dhami
9	LU	Dhanalakshmi Ramanathan	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>	R. Dhami
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 2025 to May 2025</u>	S. Prashant
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>	Shisupal Sing
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>	Valliappan

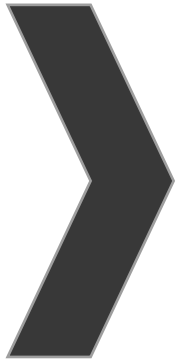
TM- EC						
S. No	Name of TM (EC)	Sector (s) proposed	Approved (to work under)	Period of involvement	Type of work	Signature
1.	Abirami	1(a)	Manikandan Manickam	Period: March to May 2025.	Associate d with EIA Coordina tor in overall preparati on of Draft EIA/EMP report.	
TM- FAE:						
S. N O	Name of TM (FAE)	Function al Area	Approv ed FAE (to work under)	Period of involve ment	Type of work	Signature
1	Kamaraj S	HG	Ashok Kumar Rajagopal	Period: March to May 2025.	Associated with Experts in studying hydrogeologic al pattern of study area, Studying ground water and the impact of the project on ground water	
2	B.J.Sampat kumar	SE	Saraswa thy K	Period: March to May 2025.	Assisted by the Expert in preparation of socio-economic report.	
		SC	Shishup al 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	Dhanala kshmi	Period: March to	Associated with the	

			Ramanathan	May 2025.	expert team in suggesting control measures for noise and Ground Vibration.	Mowmika. E
		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	Q. Balasubramani
		Geo	Valliappan Meyyappan		Associated with the expert in preparing Geological map.	

5	Suresh Mani	LU	Srilatha Thiruvee dhula	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 Thiruvee dhula	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	Valliappa n 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	Valliappa n Meyyappan	<i>Period: March to May 2025.</i>	Associated with Experts and involved in Field Investigations, Mapping /Geo-referencing	
8	Abirami Kaliyaperu mal	RH	S V Prashant	<i>Period: March to May 2025.</i>	Associated with experts and involved in the identification risk and hazard, suggesting safeguard measures.	
9	Dhanalaksh mi Ramanatha n	AQ	Srilatha Thiruvee dhula	<i>Period: March to May 2025</i>	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	Ramado ss N	<i>Period: March to</i>	Associated with expert	

				May 2025.	team in assessing existing air quality, impact of the project on ambient air and suggesting mitigation measures for air pollution	
		WP	Abirami Kaliyape rumal		Involved in the identification of source of water and waste generation, suggesting treatment for safe disposal of wastewater	



ANNEXURE-1



certificateData.fno: 12507

certificateData.gov

certificateData.moef

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



certificateData.Dated: 30/09/2025



To,

Thiru. MARIMUTHU. R

M/s.RRM Transport

1/303, Ariyalur Main Road, Kavulpalayam, Kalpadi (North), Perambalur - 621220. TAMIL NADU.

mari1552600@gmail.com

certificateData.standardPoints.subject.subject Grant of Terms of Reference along with Public Hearing under the provision of the EIA Notification 2006-regarding.

certificateData.standardPoints.sir.subject

Sub: SEIAA, Tamil Nadu – Terms of Reference (ToR) along with Public Hearing for the Proposed Rough Stone quarry lease over an extent of 1.00.0 Ha at S.F.No. 328/2 (BLOCK-36) of Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu by M/s. RRM TRANSPORT – “B1” and Schedule S.No.1(a) – ToR issued along with Public Hearing- preparation of EIA report – Regarding.

Ref: 1. Online proposal No. SIA/TN/MIN/545885/2025, Dated: 24/07/2025.

2. Minutes of the 609th Meeting of SEAC held on 26.08.2025.

3. Minutes of the 888th Meeting of Authority held on 17.09.2025.

2. certificateData.belowDetails:

(i) TOR certificateData.idnO.	TO25B0108TN5925656N
(ii) certificateData.fno.	12507
(iii) certificateData.ClearanceType	TOR
(iv) certificateData.Category	B1
(v) certificateData.ProjectActivityIncludedScheduleNo	1(a) Mining of minerals
(vii) certificateData.NameOfProject	Rough stone Quarry of M/s.RRM Transport
(viii) certificateData.NameOfCompanyOrganization	MARIMUTHU R
(ix) certificateData.LocationOfProject	PERAMBALUR, TAMIL NADU
(x) certificateData.IssuingAuthority	SEIAA
(xi) certificateData.ApplicabilityOfGeneralConditions	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 **M/s. RRM TRANSPORT** 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 OM No.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

certificateData.CopyTo

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Additional Chief Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Additional Chief Secretary to Government, Natural Resources Department, Tamil Nadu.
4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai – 34.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
6. The Chairperson, TNPC Board, 76, Mount Salai, Guindy, Chennai-32
7. The District Collector, Perambalur District,
8. The Commissioner of Geology and Mines, Guindy, Chennai-32
9. The Assistant Director, Department of Geology & Mining, Perambalur District
10. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
11. File Copy.

certificateData.annexure 1

Specific Terms of Reference s for (Mining Of Minerals)

1. Seiaa Specific Conditions

S. No	Terms of Reference
1.1	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 1,46,666 m³ of Rough Stone up to a depth of 66m (41m AGL and 25m BGL) as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-I & normal conditions & the standard conditions.

2. Seac Conditions - Site Specific

S. No	Terms of Reference
2.1	<u>Major Condition:</u> 1. The PP shall provide safe distance of 15m from high wall and form benches thereafter and submit the revised the Mining Plan accordingly along with EIA Report. 2. The PP shall provide safety mesh net on the high wall side in order to safeguard from landslide. <u>Specific Condition:</u> 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. 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.

3. Seac Standard Conditions

S. No	Terms of Reference
3.1	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

S. No	Terms of Reference
	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 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.

S. No	Terms of Reference
	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 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

S. No	Terms of Reference
	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 Court of Law against the Project should be given. 40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc. 41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCCB. 42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine. 43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

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.

S. No	Terms of Reference
	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 as the health of the public in the vicinity. <u>Agriculture & Agro-Biodiversity</u> 9. Impact on surrounding agricultural fields around the proposed mining Area. 10. Impact on soil flora & vegetation around the project site. 11. Details of type of vegetation including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP. 12. The Environmental Impact Assessment should study the agro-biodiversity, agro- forestry, horticultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem. 13. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services. 14. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock. <u>Forests</u> 15. The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife. 16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna. 17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection. 18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site. <u>Water Environment</u> 19. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period. 20. Erosion Control measures. 21. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas. 22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir. 23. The project proponent shall study and furnish the details on potential fragmentation impact on natural Environment, by the activities. 24. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts. 25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil

S. No	Terms of Reference
	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: - Hydrothermal/Geothermal effect due to destruction in the Environment. - Bio-geochemical processes and its foot prints including Environmental stress. - Sediment geochemistry in the surface streams. <u>Energy</u> 28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished. <u>Climate Change</u> 29. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities. 30. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features. 31. Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood. <u>Mine Closure Plan</u> 32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued. <u>EMP</u> 33. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs. 34. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan. <u>Risk Assessment</u> 35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining. <u>Disaster Management Plan</u> 36. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued. <u>Others</u> 37. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc. 38. As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan. 39. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the Environment. The ecological risks and impacts of plastic & microplastics on aquatic Environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994
1.2	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
1.3	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee
1.4	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the areashould be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone)
1.5	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics
1.6	Details about the land proposed for mining activities should be givenwith information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority
1.7	It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large,may also be detailed in the EIA Report
1.8	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided
1.9	The study rea will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period
1.10	Land use of the study rea delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given
1.11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land

S. No	Terms of Reference
	area, distance from mine lease, its land use, R&R issues, if any, should be given
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the 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
1.14	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given
1.16	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted
1.17	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished
1.18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost
1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered
1.20	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)

S. No	Terms of Reference
1.21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report
1.22	One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site- specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given
1.23	Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map
1.24	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated
1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided
1.26	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided
1.27	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided
1.28	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.29	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out

S. No	Terms of Reference
1.30	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same
1.31	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution
1.32	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report
1.34	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report
1.35	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed
1.36	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations
1.37	Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation
1.38	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project
1.39	Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project
1.40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given

S. No	Terms of Reference
1.41	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report
1.43	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc
1.44	Besides the above, the below mentioned general points are also to be followed:- a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed. g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable. i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area

STANDARD TERMS OF REFERENCE

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

- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects

- due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
 - 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
 - 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
 - 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
 - 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season); December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented

date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.

- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided

both in AMSL and Bgl. A schematic diagram may also be provided for the same.

- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural

and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed: -
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA. II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and

content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

- i) As per the circular no. J-11011/618/2010-IA. II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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

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

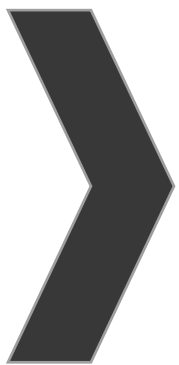
1. Project name and location (Village, District, State, Industrial Estate (if applicable).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
3. Measures for mitigating the impact on the environment and mode of discharge or disposal.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

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

(Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

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

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -11013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website <http://www.moef.nic.in/> may be referred.
 - After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above-mentioned points, the proponent will take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
 - The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance.
 - The TORs with public hearing prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.



ANNEXURE-2

Rc.No.104/G&M/2025, Dated:02.05.2025

Department of Geology & Mining,
Collectorate,
Perambalur - 621201PRECISE AREA COMMUNICATION LETTER

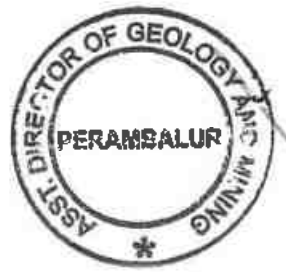
Sub : Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025_CGAM_525779_1 - M/s.RRM Transport (BID ID:1274420) quoted highest Bid amount (H1) For the quarry listed in Serial Number 04 - Declared as H1 bidder - H1 Bid Amount remitted - 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.104/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)
 5. Remittance challan No. 20250329002690 dated:29.03.2025 submitted by M/s. RRM Transport (BID ID:1274420)
 6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.104/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)
 7. Remittance challan No. 20250428067303 dated:28.04.2025 submitted by M/s. RRM Transport (BID ID:1274420)

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 on 27.03.2025 for the bidders whos' bids were qualified technically and financially.

After Financial Evaluation, M/s. RRM Transport (BID ID:1274420) was declared as H1 bidder for the quarry listed in Serial Number 04 of the Gazette as the firm quoted highest bid amount of Rs. 2,09,00,000/- 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 remitted 10% of the bid amount to a sum of Rs. 20,90,000/- and submitted remittance challan No.20250329002690 dated: 29.03.2025 to this office.



Subsequently, M/s. RRM Transport (BID ID:1274420) was directed to remit the remaining 90% of Highest bid amount after adjusting the Bid Security already paid by them within one month to Government head of account and to submit original remittance challan to this office. Accordingly, M/s. RRM Transport (BID ID:1274420) has remitted Rs.1,45,74,091/- after deducting Rs.42,35,909/- (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.04 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.	04
	Taluk	Perambalur
	Village	Kalpadi(N)
	S.F.No.	328/2 Block-36
	Extent	1.00.0 Hectares
	Lease Period	5 Years
2.	H1 Bidder, Bid Amount Remittance	
	H1 Bidder	M/s. R R M Transport (BID ID:1274420) 1/303, Ariyalur Main Road, Kavulpalayam, Perambalur - 621220.
	H1 Bid Amount	Rs. 2,09,00,000/-
	10% of H1 bid amount remitted	Rs. 20,90,000/- (Challan No. 20250329002690 dated:29.03.2025)
	Bid Security (EMD) already remitted	Rs. 42,35,909/-
	90% of bid amount paid after adjusting Bid Security already paid	Rs. 1,45,74,091/- (Challan No. 20250428067303 dated:28.04.2025)

The H1 Bidder, M/s. RRM Transport (BID ID:1274420) has remitted entire H1 Bid Amount of Rs. 2,09,00,000/- 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 1.00.0 hectares of Government land in S.F.No. 328/2 Block-36 of Kalpadi(N) Village, Perambalur Taluk and District as notified in Serial Number.04 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 5 years to M/s. RRM Transport (BID ID:1274420), 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 M/s. RRM Transport (BID ID:1274420) 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.

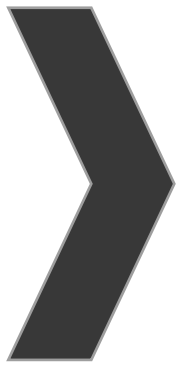
Encl: Map showing the proposal lease area.

[Signature]
Assistant Director,
Geology and Mining,
Perambalur.

To
M/s. R R M Transport (BID ID:1274420)
1/303, Ariyalur Main Road,
Kavulpalayam,
Perambalur - 621220.

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

M/s. R R M Transport ,
1/303, Ariyalur Main Road,
Kavulpalayam,
Perambalur – 621220.

Rc.No.104/G&M/2025,

Dated: 06.06.2025

Sir,

Sub: Mines and Minerals - Perambalur District - Rough Stone -
e-Tender cum auction conducted for Roughstone quarries in
Government lands - M/s. R R M Transport quoted highest Bid
amount (H1) for the quarry in S.F.No. 328/2 (Block 36), OAE of
1.00.0 hectare in Kalpadi(North) Village, Perambalur 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.104/G&M/2025, dated:
28.03.2025 & 01.04.2025.
 4. The Assistant Director, Geology and Mining, Perambalur
Precise Area Communication letter Rc.No.104/G&M/2025,
dated 02.05.2025.
 5. M/s. R R M Transport, letter dated. 02.06.2025.

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.

2) M/s. R R M Transport was declared as Highest Bidder for the quarry in
S.F.No. 328/2 (Block 36), to an extent of 1.00.0 hectare in Kalpadi(North) Village,
Perambalur Taluk, Perambalur District and the lease period proposed for the subject
quarry is 5(five) years. The Highest Bidder M/s. R R M Transport, 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 the firm 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.

3) Accordingly, in the reference 5th cited, the successful bidder has submitted Draft Mining Plan prepared by Qualified Person for the above area. The draft Mining Plan submitted by M/s. R R M Transport, 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 9,30,781.50 metric tonnes.
- c. The mineable reserve has been computed as 4,03,331.50 metric tonnes of Roughstone up to a depth of 66m (41m AGL + 25m BGL).
- d. The lease period of the subject Roughstone quarry is 5(five) years and it has been proposed for the production of 4,03,331.50 metric tonnes of Roughstone up to a depth of 66m (41m AGL + 25m BGL) in the mining plan in five years.
- e. The depth of water table in the subject area is reported as 70m BGL and workable depth has been proposed up to 25m BGL only in the mining plan. Hence, the quarrying operation will not affect the water table in the area.
- f. 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.
- g. It has been proposed to adopt controlled blasting measures for minimizing ground vibration and fly rocks.
- h. Machineries like Tractor mounted compressor attached with Jack hammers, excavators with rock breaker attachment are proposed for quarrying operation. Trucks of 25/30 MT 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.

- i. That the Mining Plan is approved without prejudice to any other laws applicable to the quarry area from time to time 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.

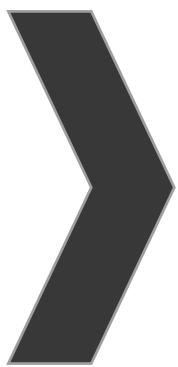
Encl: 2 copies of approved Mining Plan.

D. Ben
06/06/25
Assistant Director,
Geology and Mining,
Perambalur.

Copy to:

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

do
21/6/25



APPROVAL MINING PLAN

MINING PLAN FOR KALPADI (NORTH) ROUGH STONE QUARRY

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

LOCATION OF THE QUARRY LEASE APPLIED AREA

STATE : TAMIL NADU
DISTRICT : PERAMBALUR
TALUK : PERAMBALUR
VILLAGE : KALPADI (NORTH)
S.F.NO : 328/2 (BLOCK-36)
EXTENT : 1.00.0Ha

FOR

APPLICANT

M/s. RRM Transport,
1/303, Ariyalur Main Road,
Kavulpalayam,
Perambalur -621220.

ECO-FRIENDLY



SUSTAINABILITY



SAFETY



(PPE)

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 CHETTYPATY,

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



M/s.RRM Transport,
1/303, Ariyalur Main Road,
Kavulpalayam,
Perambalur -621220.



CONSENT LETTER FROM THE APPLICANT

The Mining Plan in respect of **Rough Stone** quarry over an extent of 1.00.0Hectares of Government land in S.F.No.328/2 (Block-36) of Kalpadi (North) Village, Perambalur 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
For M/s.RRM Transport,

R. Marimuthu
R.Marimuthu (Proprietor)

Place: Perambalur

Date: 03.05.2025

M/s.RRM Transport,
1/303, Ariyalur Main Road,
Kavulpalayam,
Perambalur -621220.



DECLARATION

The Mining Plan in respect of **Rough Stone** quarry over an extent of 1.00.0Hectares of Government land in S.F.No. 328/2 (Block-36) of Kalpadi (North) Village, Perambalur 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
For M/s.RRM Transport,

R.Marimuthu (Proprietor)

Place: Perambalur

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

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 1.00.0 Hectares of Government land in S.F.No. 328/2 (Block-36) of Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State applied by M/s.RRM Transport, 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

Place: Salem

Date: 05.05.2025

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



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

CERTIFICATE

Certified that, in preparation of Mining Plan for **Rough Stone** quarry over an extent of 1.00.0Hectares of Government land in S.F.No.328/2 (Block-36) of Kalpadi (North) Village, Perambalur Taluk, Perambalur District, Tamil Nadu State for M/s.RRM Transport, 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

Place: Salem

Date: 05.05.2025

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



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 1.00.0Ha of (Government land) in S.F.No.328/2 (Block-36) of Kalpadi (North) Village, Perambalur Taluk, Perambalur District, by M/s. RRM Transport, for a period of five 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.

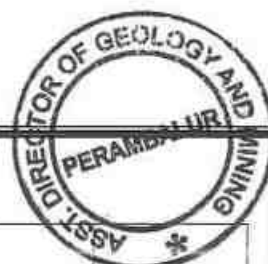

C.Natarajan, M.Sc., M.Phil.,
Qualified Person

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

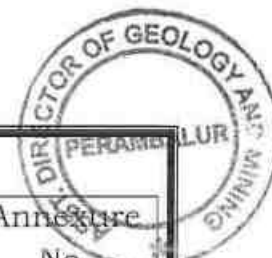
Place: Salem

Date: 05.05.2025

CONTENTS



S. No.	Description	Page No.
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12.0	Any Other Details Intend to furnish by the Applicant	26



Annexure

S. No.	Description	Annexure No.
1.0	Precise Area Communication letter issued by the Assistant Director, Department of Geology and Mining,	I
2.0	Copy of Tender Document	IA
3.0	Copy of FMB	II
4.0	Copy of Village map	III
5.0	Copy of Adangal	IV
6.0	Copy of A Register	V
7.0	Copy of Company Certificate	VI
8.0	Copy of Identity Proof	VII
9.0	Copy of QP Certificate	VIII

LIST OF PLATES

S. No.	Description	Plate No.
1.0	Location Plan	I
2.0	Environmental Plan	I-A
3.0	Satellite imagery map	I-B
4.0	Topo sketch of Quarry lease applied area for 10Km Radius	I-C
5.0	Key Plan	I-D
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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	Conceptual Plan & Sections	VI



MINING PLAN FOR MINOR MINERALS

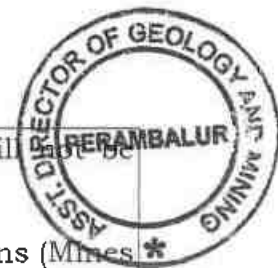
ROUGH STONE

Over an extent of 1.00.0hectares of Government land in
S.F.No. 328/2 (Block-36) of Kalpadi (North) Village, Perambalur 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 M/s.RRM Transport, 1/303, Ariyalur Main Road, Kavulpalayam, Perambalur -621220.
2. The application was processed by the Assistant Director, Department of Geology and Mining, Perambalur, and passed an order vide Rc.No.104/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 1.00.0hectares of Government lands in S.F.No. 328/2 (Block-36) of Kalpadi (North) Village, Perambalur Taluk, Perambalur District of Tamil Nadu State for a period of five 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 9,30,781.50Ts of Rough stone and Mineable Reserves is estimated at 4,03,331.50Ts of Rough Stone 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 4,03,331.50Ts of Rough Stone for the period of five years.



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.

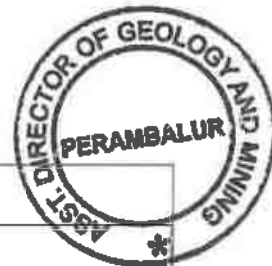


EXECUTIVE SUMMARY:

a.	Name of the Village Panchayat	:	Kalpadi (North)
b.	Name of the Panchayat Union	:	Perambalur
c.	The proposed total Movable Reserves	:	4,03,331.50Ts of Rough Stone
d.	The proposed quantity of reserves (level of production) for Five years to be mined is (Recoverable reserves)	:	4,03,331.50Ts of Rough Stone
e.	Total extent of the area	:	1.00.0Ha
f.	Proposed Period of mining	:	Five Years
g.	Existing depth	:	41m (above ground level)
h.	Proposed Depth of mining	:	66m (41m above ground level and 25m below 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.2,12,00,000/- Rs. 51,50,000/- Rs. 5,00,000/- Total Project cost(A+B+C)= Rs. 2,68,50,000/-

1. 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°13'15.95"N	78°54'53.36"E	1-2 = 125.0m
2	11°13'19.90"N	78°54'52.38"E	2-3 = 80.0m
3	11°13'20.52"N	78°54'54.94"E	3-4 = 125.0m
4	11°13'16.57"N	78°54'55.92"E	4-1 = 80.0m

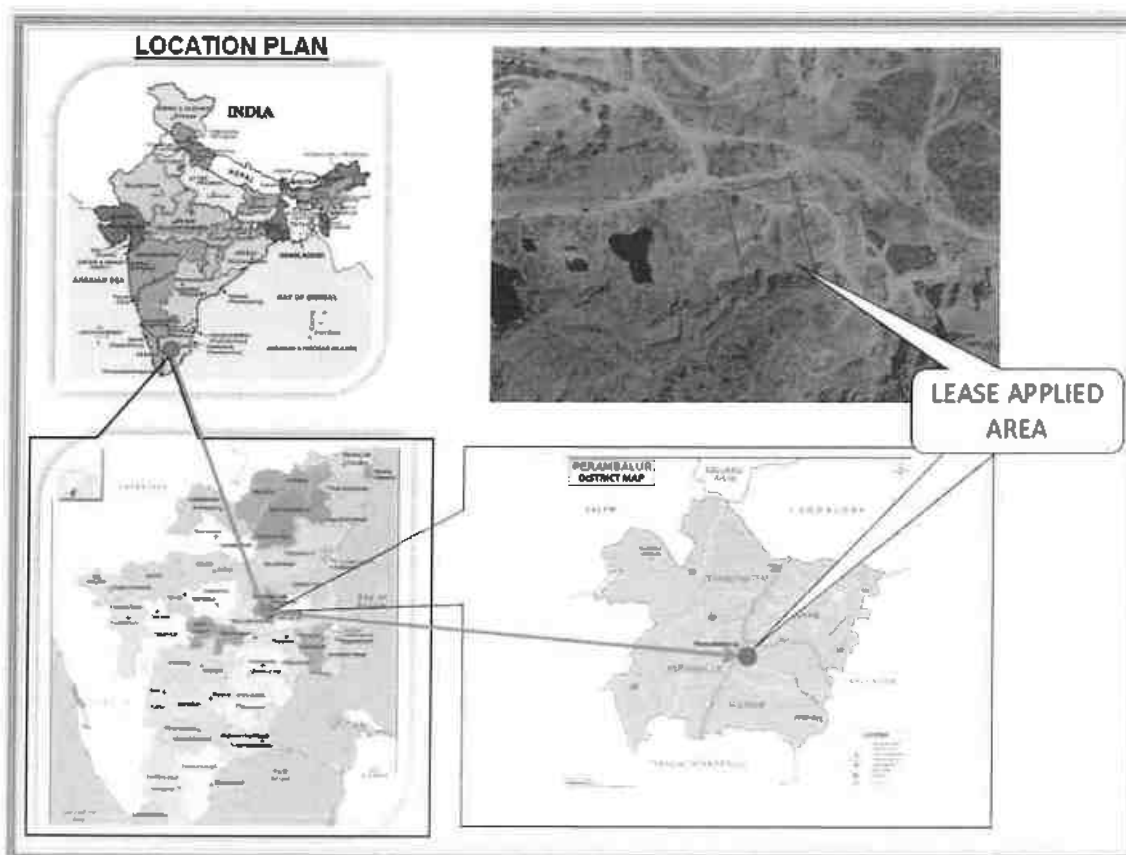


2.0 General Information:

	a.	Name of the Applicant	:	M/s.RRM Transport,
	b.	Address of the Applicant with phone No and e-mail id if any	:	1/303, Ariyalur Main Road, Kavulpalayam, Perambalur -621220. Cell No.: 73394 89231
	c.	Status of the Applicant	:	Proprietorship firm
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.104/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 five 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.

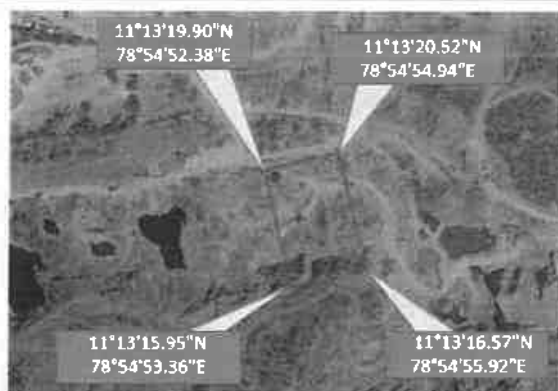
3.0 Location:

S.No	Details of the Area:	
1	Corner Coordinates	Latitude : 11°13'15.95"N to 11°13'20.52"N Longitude : 78°54'52.38"E to 78°54'55.92"E
2	Toposheet Number	58 I/16
3	The altitude of the area	150m (MSL)
4	Extent	1.00.0Ha
5	Survey No	328/2 (Block-36)
6	Village	Kalpadi (North)
7	Taluk	Perambalur
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°13'15.95"N to 11°13'20.52"N Longitude: 78°54'52.38"E to 78°54'55.92"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 Thoramanagalam – Kavulpalayam road on western side of the area. The Nearest Railway line is Trichy – Virudhachalam line which is about 18.7Km on southeastern side of the area



SATELLITE IMAGERY OF THE LEASE APPLIED AREA



TOPOGRAPHICAL VIEW OF 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 Charnockite formation. The massive Charnockite formation is noticed right from the surface and sloping towards north side of the area, the altitude of the area is above 150m (maximum) from MSL. ➤ No major river is found nearby the lease applied area. ➤ Water table is found at a depth of 70m in summer and 67m 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. <table><thead><tr><th><u>AGE</u></th><th><u>ROCK TYPE</u></th></tr></thead><tbody><tr><td>Recent</td><td>Topsoil</td></tr><tr><td></td><td>Unconformity</td></tr><tr><td>Archaean</td><td>Dolerite dyke</td></tr><tr><td></td><td>Charnockite.</td></tr><tr><td></td><td>Peninsular</td></tr><tr><td></td><td>Gneissic complex and Calc Gneiss</td></tr></tbody></table>	<u>AGE</u>	<u>ROCK TYPE</u>	Recent	Topsoil		Unconformity	Archaean	Dolerite dyke		Charnockite.		Peninsular		Gneissic complex and Calc Gneiss
<u>AGE</u>	<u>ROCK TYPE</u>																
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 existing quarry pit.														
4.3	a.	Estimation of Reserves	: The Geological and Recoverable reserves are estimated by cross sectional method. Totally Four sections have been drawn, two sections drawn length wise as (X-Y), (X1-Y1) and another two sections drawn width wise as (A-B), (C-D) 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 66m (41m above ground level and 25m 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)	Rough stone in m ³	Bulk Density	Geological Resources of Rough stone in Ts
XY-AB	Above Ground Level	III	36	42	2	3024	2.75	8316.00
		IV	41	42	2	3444	2.75	9471.00
		V	66	42	3	8316	2.75	22869.00
	Below Ground Level	VI	66	42	5	13860	2.75	38115.00
		VII	66	42	5	13860	2.75	38115.00
		VIII	66	42	5	13860	2.75	38115.00
		IX	66	42	5	13860	2.75	38115.00
		X	66	42	5	13860	2.75	38115.00
		Total				97944	-	269346.00
XY-CD	Above Ground Level	VIII	14	15	1	210	2.75	577.50
		IX	45	42	3	5670	2.75	15592.50
		X	45	42	5	9450	2.75	25987.50
	Below Ground Level	XI	59	42	5	12390	2.75	34072.50
		XII	59	42	5	12390	2.75	34072.50
		XIII	59	42	5	12390	2.75	34072.50
		XIV	59	42	5	12390	2.75	34072.50
		Total				77280	-	212520.00
XIY1-AB	Above Ground Level	III	36	38	2	2736	2.75	7524.00
		IV	41	38	2	3116	2.75	8569.00
		V	66	38	3	7524	2.75	20691.00
			66	38	5	12540	2.75	34485.00





	Below Ground Level	VI	66	38	5	12540	2.75	34485.00
		VII	66	38	5	12540	2.75	34485.00
		VIII	66	38	5	12540	2.75	34485.00
		IX	66	38	5	12540	2.75	34485.00
		X	66	38	5	12540	2.75	34485.00
	Total					88616	-	243694.00
	Above Ground Level	VII	10	16	2	320	2.75	880.00
		VIII	10	16	2	320	2.75	880.00
			59	38	3	6726	2.75	18496.50
		IX	59	38	5	11210	2.75	30827.50
		X	59	38	5	11210	2.75	30827.50
		XI	59	38	5	11210	2.75	30827.50
		XII	59	38	5	11210	2.75	30827.50
		XIII	59	38	5	11210	2.75	30827.50
		XIV	59	38	5	11210	2.75	30827.50
	Total					74626	-	205221.50
	Grand Total					338466	-	930781.50

The Geological Resources of Rough stone : 9,30,781.50Ts

b. Already excavated

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	123	75	41m (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)	Rough stone in m ³	Bulk Density	Mineable Reserves of Rough stone in Ts
XY-AB	Above Ground Level	III	26	32	2	1664	2.75	4576.00
		IV	31	32	2	1984	2.75	5456.00
		V	56	32	3	5376	2.75	14784.00
	Below Ground Level	VI	56	32	5	8960	2.75	24640.00
		VII	56	32	5	8960	2.75	24640.00
		VIII	51	27	5	6885	2.75	18933.75
		IX	46	22	5	5060	2.75	13915.00
		X	41	17	5	3485	2.75	9583.75
			36	12	5	2160	2.75	5940.00
		Total				44534		122468.50
XY-CD	Above Ground Level	VIII	14	15	1	210	2.75	577.50
		IX	45	32	3	4320	2.75	11880.00
		X	45	32	5	7200	2.75	19800.00
	Below Ground Level	XI	49	32	5	7840	2.75	21560.00
		XII	44	27	5	5940	2.75	16335.00
		XIII	39	22	5	4290	2.75	11797.50
		XIV	34	17	5	2890	2.75	7947.50
			29	12	5	1740	2.75	4785.00
		Total				34430		94682.50
XIY1- AB	Above Ground Level	III	26	28	2	1456	2.75	4004.00
		IV	31	28	2	1736	2.75	4774.00
		V	56	28	3	4704	2.75	12936.00
			56	28	5	7840	2.75	21560.00

	Below Ground Level	VI	56	28	5	7840	2.75	21560.00
		VII	51	23	5	5865	2.75	16128.75
		VIII	46	18	5	4140	2.75	11385.00
		IX	41	13	5	2665	2.75	7328.75
		X	36	8	5	1440	2.75	3960.00
	Total					37686	-	103636.50
XIY1- CD	Above Ground Level	VII	10	6	2	120	2.75	330.00
		VIII	10	6	2	120	2.75	330.00
		IX	49	28	3	4116	2.75	11319.00
		X	49	28	5	6860	2.75	18865.00
		XI	49	28	5	6860	2.75	18865.00
		XII	44	23	5	5060	2.75	13915.00
		XIII	39	18	5	3510	2.75	9652.50
		XIV	34	13	5	2210	2.75	6077.50
		XIV	29	8	5	1160	2.75	3190.00
	Total					30016	-	82544.00
	Grand Total					146666	-	403331.50

The available mineable reserve is computed as 4,03,331.50Ts of Rough stone upto a depth of 66m (41m above ground level and 25m below ground level) only.

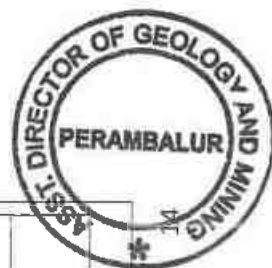


5.0 Mining:		
5.1	Method of Mining	: 1. Opencast method of semi mechanized mining with 5.0m height 5m width the bench. 2. However, as far as the quarrying of Rough stone is concerned, observance of the provisions of Regulation 106(2) (b) as above is seldom possible due to various inherent petrogenetic 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 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.

The Yearwise Production and Development Table

Table No -4

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
I	XY-AB	Above Ground Level	III	26	32	2	1664	2.75	4576.00
			IV	31	32	2	1984	2.75	5456.00
				56	32	3	5376	2.75	14784.00
	XY-CD	Above Ground Level	VIII	14	15	1	210	2.75	577.50
			45	32	3	4320	2.75	11880.00	
	X1Y1-CD	Above Ground Level	VII	10	6	2	120	2.75	330.00
			VIII	10	6	2	120	2.75	330.00
				49	28	3	4116	2.75	11319.00
	X1Y1-AB	Above Ground Level	III	26	28	2	1456	2.75	4004.00
				31	28	2	1736	2.75	4774.00
			IV	56	28	3	4704	2.75	12936.00
				V	25	28	5	3500	2.75
Total							29306	-	80591.50
II	X1Y1-AB	Above Ground Level	V	31	28	5	4340	2.75	11935.00
	X1Y1-CD	Above Ground Level	IX	49	28	5	6860	2.75	18865.00
	XY-CD	Above Ground Level	IX	45	32	5	7200	2.75	19800.00
	XY-AB	Above Ground Level	V	56	32	5	8960	2.75	24640.00
		Below Ground Level	VI	13	32	5	2080	2.75	5720.00
	Total							29440	-
III	XY-AB	Below Ground Level	VI	43	32	5	6880	2.75	18920.00





	XY-CD	Below Ground Level	X	49	32	5	7840	2.75	21560.00
	X1Y1-CD	Below Ground Level	X	49	28	5	6860	2.75	18865.00
	X1Y1-AB	Below Ground Level	VI	56	28	5	7840	2.75	21560.00
	Total							29420	80905.00
IV	X1Y1-AB	Below Ground Level	VII	51	23	5	5865	2.75	16128.75
	X1Y1-CD	Below Ground Level	XI	44	23	5	5060	2.75	13915.00
	XY-CD	Below Ground Level	XI	44	27	5	5940	2.75	16335.00
		Below Ground Level	XII	5	22	5	550	2.75	1512.50
	XY-AB	Below Ground Level	VII	51	27	5	6885	2.75	18933.75
		Below Ground Level	VIII	46	22	5	5060	2.75	13915.00
	Total							29360	80740.00
V	XY-CD	Below Ground Level	XII	34	22	5	3740	2.75	10285.00
			XIII	34	17	5	2890	2.75	7947.50
			XIV	29	12	5	1740	2.75	4785.00
	X1Y1-CD	Below Ground Level	XII	39	18	5	3510	2.75	9652.50
			XIII	34	13	5	2210	2.75	6077.50
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	X1Y1-AB	Below Ground Level	VIII	46	18	5	4140	2.75	11385.00
			IX	41	13	5	2665	2.75	7328.75
			X	36	8	5	1440	2.75	3960.00
	XY-AB	Below Ground Level	IX	41	17	5	3485	2.75	9583.75
			X	36	12	5	2160	2.75	5940.00
	Total							29140	80135.00
	Grand Total							146666	403331.50

The applicant has proposed to carry out 4,03,331.50Ts of Rough stone upto a depth of 66m (41m above ground level and 25m below ground level) for the period of five years.

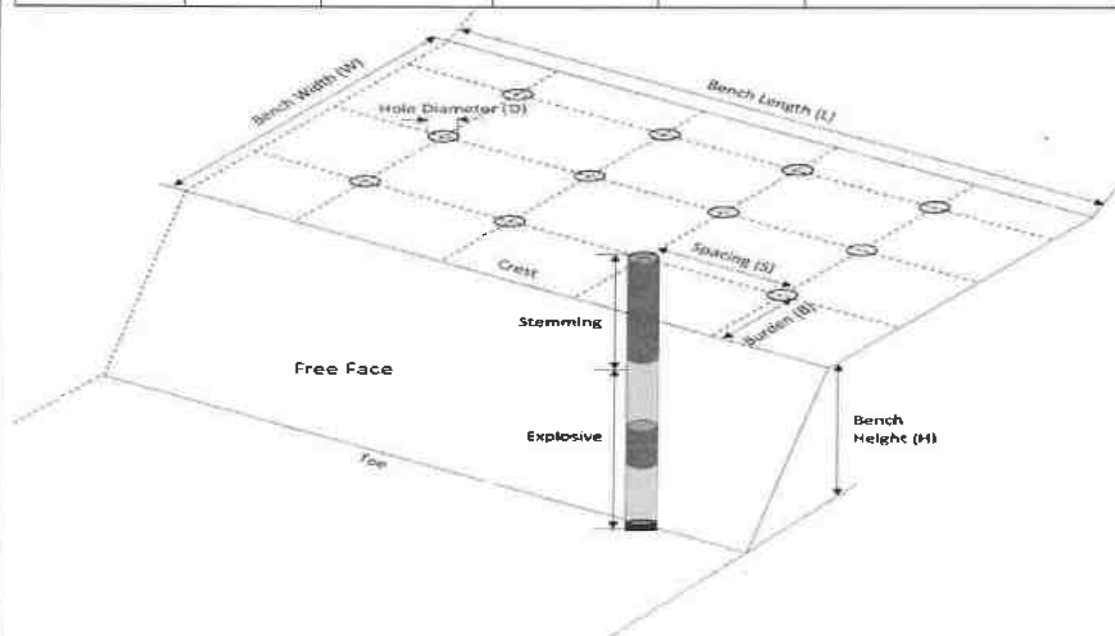
Assessment

The applicant has proposed to carry out 4,03,331.50Ts of Rough stone upto a depth of 66m (41m above ground level and 25m below ground level) for the period of five years.

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° 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. <table border="1"> <tr> <td>Number of holes</td> <td>: 90</td> </tr> <tr> <td>Powder factor</td> <td>: 6Ts/Kg of explosives</td> </tr> <tr> <td>Total explosive required</td> <td>: 45Kg slurry explosives</td> </tr> <tr> <td>Charge / hole</td> <td>: 0.5Kg</td> </tr> <tr> <td>Blasting time</td> <td>: 12-2 Pm</td> </tr> </table>	Number of holes	: 90	Powder factor	: 6Ts/Kg of explosives	Total explosive required	: 45Kg slurry explosives	Charge / hole	: 0.5Kg	Blasting time	: 12-2 Pm
Number of holes	: 90											
Powder factor	: 6Ts/Kg of explosives											
Total explosive required	: 45Kg 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. ➤ <i>The applicant ensure that will appoint the Mate (Should have Valid Blaster Certificate) during Blasting Operation.</i>										
7.0 Mine Drainage:												
7.1	Depth of Water table	: The ground water table is reported as 70m below ground level. In the proposed mining plan only 66m (41m above ground level and 25m below ground level) for the proposed mining plan period 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										



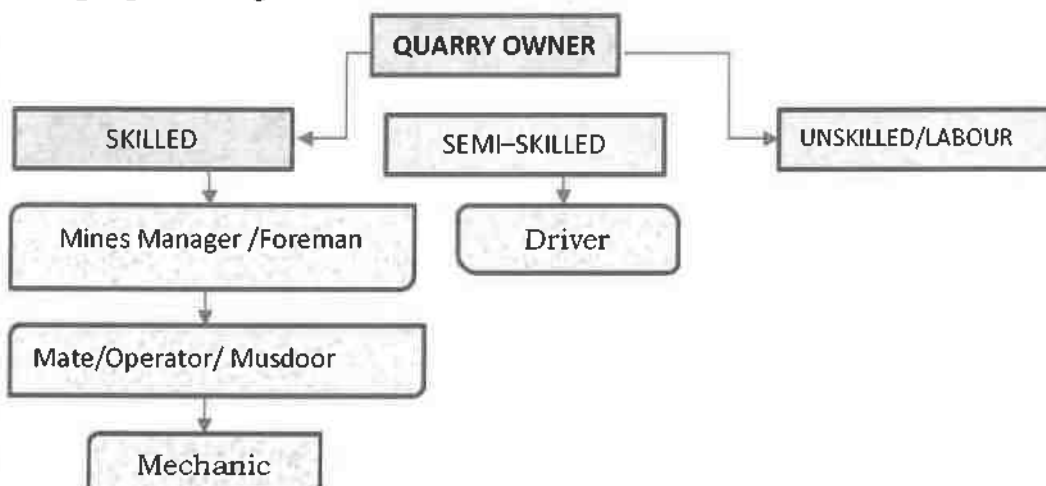
8.0 Other Permanent Structures:

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 are no water bodies like rivers, odai, pond, etc., located within a radius of 500m.
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-136) Ariyalur - Athur is about 1.8km on Northeast side of the area. The State Highway (SH-142) Thuraimangalam - Thuraiyur is about 2.8Km 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	6 No.
		Mechanic	1 No.
2.	Semi-skilled	Driver	3 No.
3.	Unskilled	Labours	12 Nos
Total =			25Nos

Allowing 10% absentee, the no. of men of roll will be around 22.

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 Kalpadi (North) Village which is about 1.1km on south 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 3.5Km (NW) 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:

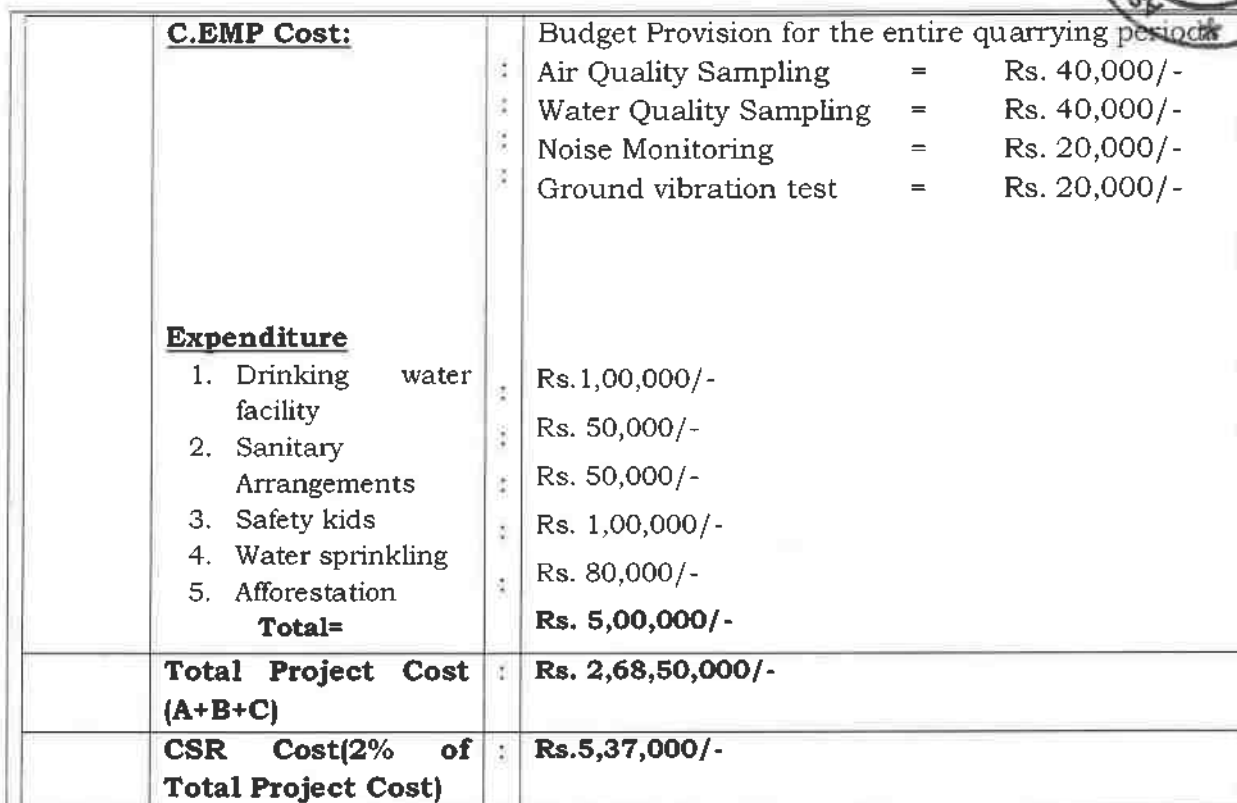
10.1	Existing Land Use Pattern	:	1. The area is exhibits hilly terrain covered by Chanockite formation. 2. Quarrying operation is proposed up to a depth of 66m (41m above ground level and 25m below ground level) for the proposed mining plan period. 3. Fluctuation of Water table in this area is in between 70m and 67m 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-5 <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Land Use</th><th>Present Area (Ha)</th><th>Area in use during the quarrying period (Ha)</th></tr> </thead> <tbody> <tr> <td>1.</td><td>Quarrying Pit</td><td>0.92.5</td><td>0.92.5</td></tr> <tr> <td>2.</td><td>Infrastructure</td><td>Nil</td><td>0.01.0</td></tr> <tr> <td>3.</td><td>Roads</td><td>0.01.0</td><td>0.01.0</td></tr> <tr> <td>4.</td><td>Green Belt</td><td>Nil</td><td>0.05.5</td></tr> <tr> <td>5.</td><td>Unutilized</td><td>0.06.5</td><td>Nil</td></tr> <tr> <td></td><td>Total =</td><td>1.00.0</td><td>1.00.0</td></tr> </tbody> </table>	Sl. No.	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)	1.	Quarrying Pit	0.92.5	0.92.5	2.	Infrastructure	Nil	0.01.0	3.	Roads	0.01.0	0.01.0	4.	Green Belt	Nil	0.05.5	5.	Unutilized	0.06.5	Nil		Total =	1.00.0	1.00.0
Sl. No.	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)																												
1.	Quarrying Pit	0.92.5	0.92.5																												
2.	Infrastructure	Nil	0.01.0																												
3.	Roads	0.01.0	0.01.0																												
4.	Green Belt	Nil	0.05.5																												
5.	Unutilized	0.06.5	Nil																												
	Total =	1.00.0	1.00.0																												
10.2	Water Regime	:	Water table in this area is noticed at a depth of 70m and presently, in the proposed mining plan only 66m (41m above ground level and 25m below ground level) for the proposed mining plan period 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.																												



10.5	Human Settlement	:	The nearest habitations with the population is given as under. Table No-6 <table border="1"> <thead> <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> </thead> <tbody> <tr> <td>1.</td><td>Kavulpalayam</td><td>1.2km - NE</td><td>600</td></tr> <tr> <td>2.</td><td>Sungupettai</td><td>3.4km - NW</td><td>1500</td></tr> <tr> <td>3.</td><td>Theanur</td><td>1.8km-SE</td><td>900</td></tr> <tr> <td>4.</td><td>Neduvasal</td><td>0.8km-SW</td><td>500</td></tr> </tbody> </table>	S. No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population	1.	Kavulpalayam	1.2km - NE	600	2.	Sungupettai	3.4km - NW	1500	3.	Theanur	1.8km-SE	900	4.	Neduvasal	0.8km-SW	500
S. No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population																				
1.	Kavulpalayam	1.2km - NE	600																				
2.	Sungupettai	3.4km - NW	1500																				
3.	Theanur	1.8km-SE	900																				
4.	Neduvasal	0.8km-SW	500																				
10.6	Plan for Air, Dust Suppression	:	Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc., will be suppressed by periodical wetting of land by water spraying. 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.																				
10.7	Plan for Noise Control	:	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.																				
10.8	Environmental Impact Assessment Statement Describing Impact on mining on the next Five years	:	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.																				
10.9	Proposal for Waste Management	:	There is no waste anticipated in this rough stone quarry operation.																				



10.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	:	In the proposed mining plan 66m (41m above ground level and 25m below ground level) for the proposed mining plan period and 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 66m 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 550Sqm area is proposed to use under afforestation by planting 66nos 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)		Rs. 2,09,00,000
	2. First aid room and accessories		Rs. 1,00,000
	3. Labour Shed		Rs. 1,00,000
	4. Sanitary Facility		Rs. 1,00,000
	Total=		Rs. 2,12,00,000/-
	B. Operational Cost:		
	1. Machineries	:	Rs.50,00,000-
	2. Fencing cost	:	Rs. 1,50,000-
	Total	:	Rs.51,50,000/-



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.



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

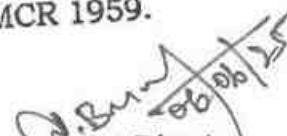
Place : Salem

Date : 05.05.2025

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

This Mining Plan is Approved
Subject to the Conditions Stipulation &
Indicated to the Mining Plan Approval
Letter No.....104/Genl.2025.dlt.6.628
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 fulfilment of the condition
laid down under TNMMCR 1959.


Assistant Director
Dept. of Geology and Mining
Perambalur District.

Rc.No.104/G&M/2025, Dated:02.05.2025

Department of Geology & Mining,
Collectorate,
Perambalur - 621201PRECISE AREA COMMUNICATION LETTER

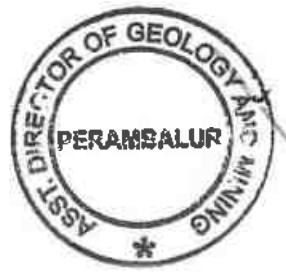
Sub : Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025_CGAM_525779_1 - M/s.RRM Transport (BID ID:1274420) quoted highest Bid amount (H1) For the quarry listed in Serial Number 04 - Declared as H1 bidder - H1 Bid Amount remitted - 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.104/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)
 5. Remittance challan No. 20250329002690 dated:29.03.2025 submitted by M/s. RRM Transport (BID ID:1274420)
 6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.104/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)
 7. Remittance challan No. 20250428067303 dated:28.04.2025 submitted by M/s. RRM Transport (BID ID:1274420)

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 on 27.03.2025 for the bidders whos' bids were qualified technically and financially.

After Financial Evaluation, M/s. RRM Transport (BID ID:1274420) was declared as H1 bidder for the quarry listed in Serial Number 04 of the Gazette as the firm quoted highest bid amount of Rs. 2,09,00,000/- 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 remitted 10% of the bid amount to a sum of Rs. 20,90,000/- and submitted remittance challan No.20250329002690 dated: 29.03.2025 to this office.



Subsequently, M/s. RRM Transport (BID ID:1274420) was directed to remit the remaining 90% of Highest bid amount after adjusting the Bid Security already paid by them within one month to Government head of account and to submit original remittance challan to this office. Accordingly, M/s. RRM Transport (BID ID:1274420) has remitted Rs.1,45,74,091/- after deducting Rs.42,35,909/- (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.04 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.	04
	Taluk	Perambalur
	Village	Kalpadi(N)
	S.F.No.	328/2 Block-36
	Extent	1.00.0 Hectares
	Lease Period	5 Years
2.	H1 Bidder, Bid Amount Remittance	
	H1 Bidder	M/s. R R M Transport (BID ID:1274420) 1/303, Ariyalur Main Road, Kavulpalayam, Perambalur - 621220.
	H1 Bid Amount	Rs. 2,09,00,000/-
	10% of H1 bid amount remitted	Rs. 20,90,000/- (Challan No. 20250329002690 dated:29.03.2025)
	Bid Security (EMD) already remitted	Rs. 42,35,909/-
	90% of bid amount paid after adjusting Bid Security already paid	Rs. 1,45,74,091/- (Challan No. 20250428067303 dated:28.04.2025)

The H1 Bidder, M/s. RRM Transport (BID ID:1274420) has remitted entire H1 Bid Amount of Rs. 2,09,00,000/- 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 1.00.0 hectares of Government land in S.F.No. 328/2 Block-36 of Kalpadi(N) Village, Perambalur Taluk and District as notified in Serial Number.04 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 5 years to M/s. RRM Transport (BID ID:1274420), 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 M/s. RRM Transport (BID ID:1274420) 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.

[Signature]
Assistant Director,
Geology and Mining,
Perambalur.

To
M/s. R R M Transport (BID ID:1274420)
1/303, Ariyalur Main Road,
Kavulpalayam,
Perambalur - 621220.

Copy to:

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



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"

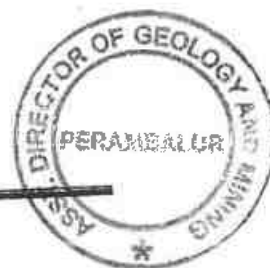
In exercise of the power conferred by Section 15 of Mines and Mineral (Development & Regulation) Act, 1957 and in accordance with the Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959 read with G.O. Ms. No.21, Natural Resources (MMC.1), 31st July 2024 as amended from time to time notified 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.

**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 and live 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	Aranarai(N)	120/2A1A (Part-1)	1.50.0	Unassessed waste land - Kundru	10
13	Perambalur	Aranarai(N)	120/2A1A (Part-2)	1.50.0	Unassessed waste land - Kundru	10
14	Perambalur	Aranarai(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

PERAMBALUR DISTRICT GAZETTE EXTRAORDINARY



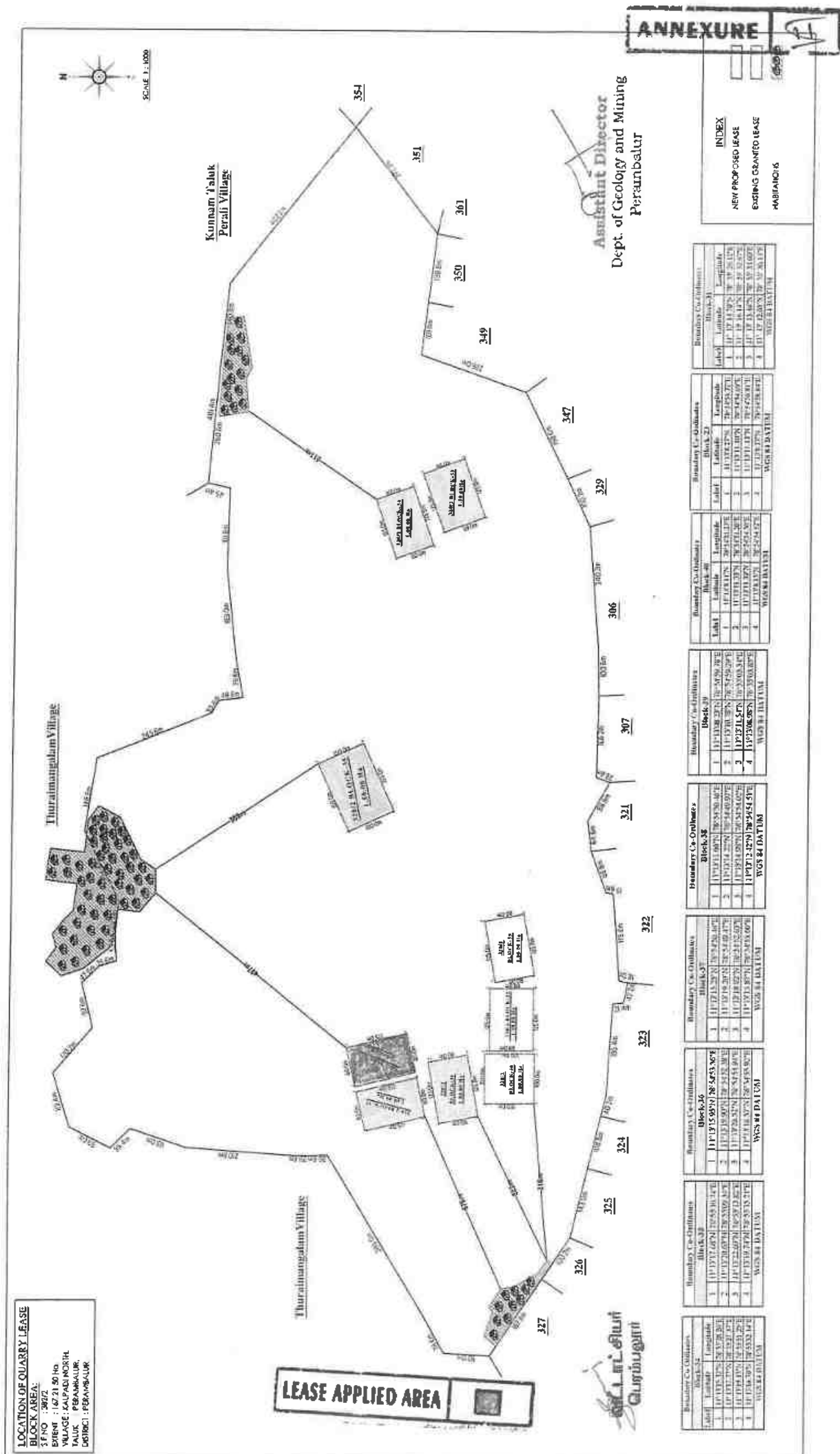
Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
17	Perambalur	Sengunam	52/1(Part-3)	1.50.0	Unassessed waste land - Malai	10
18	Alathur	Narana mangalam	300/1 Part	2.02.0	Unassessed waste land - Malai	5
19	Alathur	Narana mangalam	324/1 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



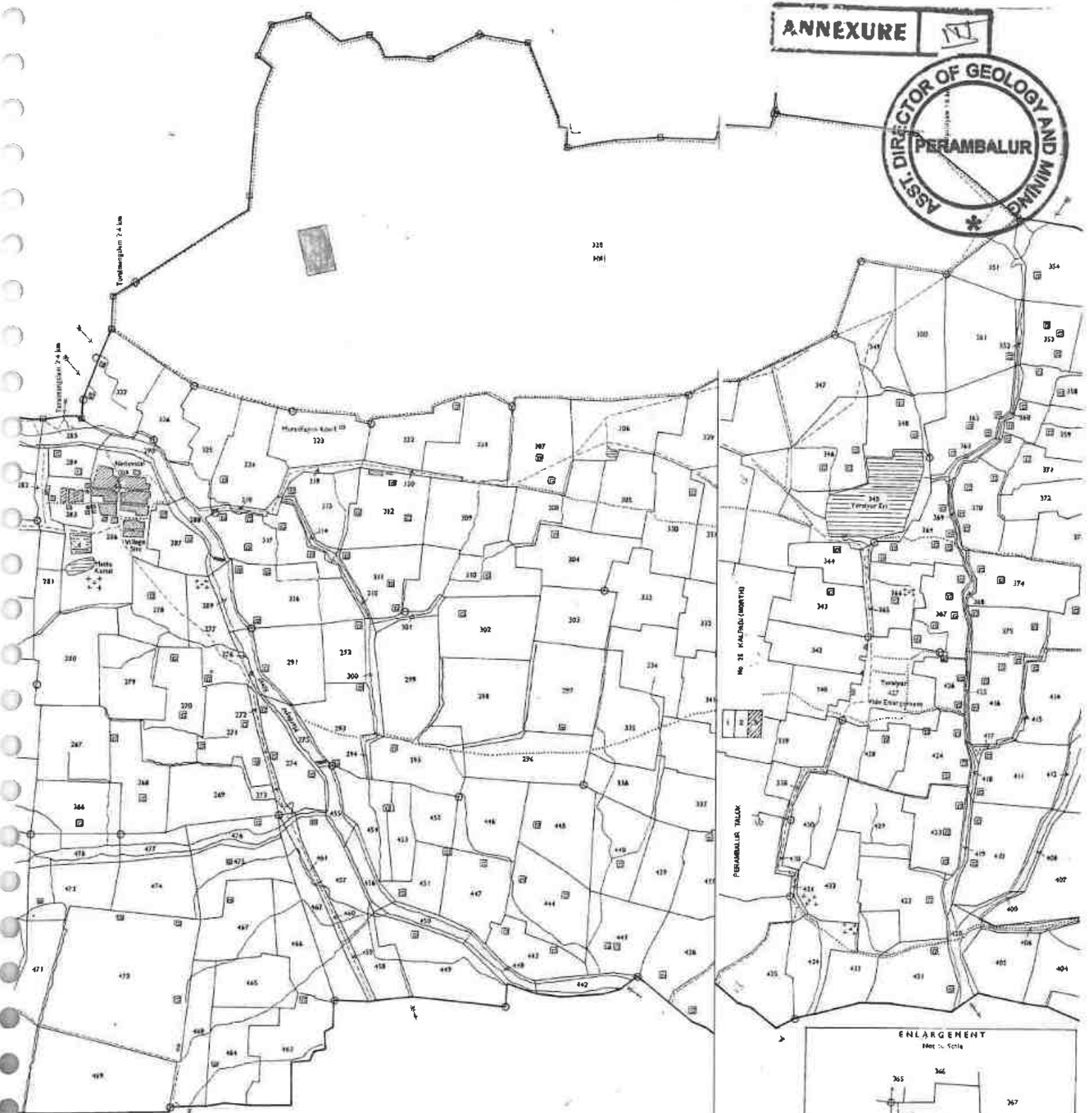
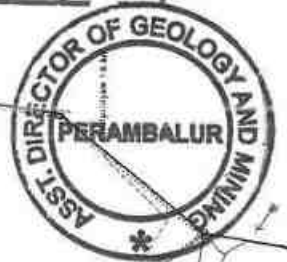
Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
38	Alathur	Padalur(E)	172 Block 2	1.50.0	Unassessed waste land - Kallankuthu	5
39	Alathur	Padalur(E)	172 Block 3	1.50.0	Unassessed waste land - Kallankuthu	5
40	Veppanthattai	Vengalam(E)	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.

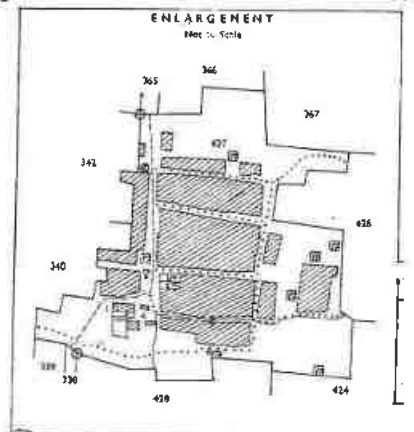
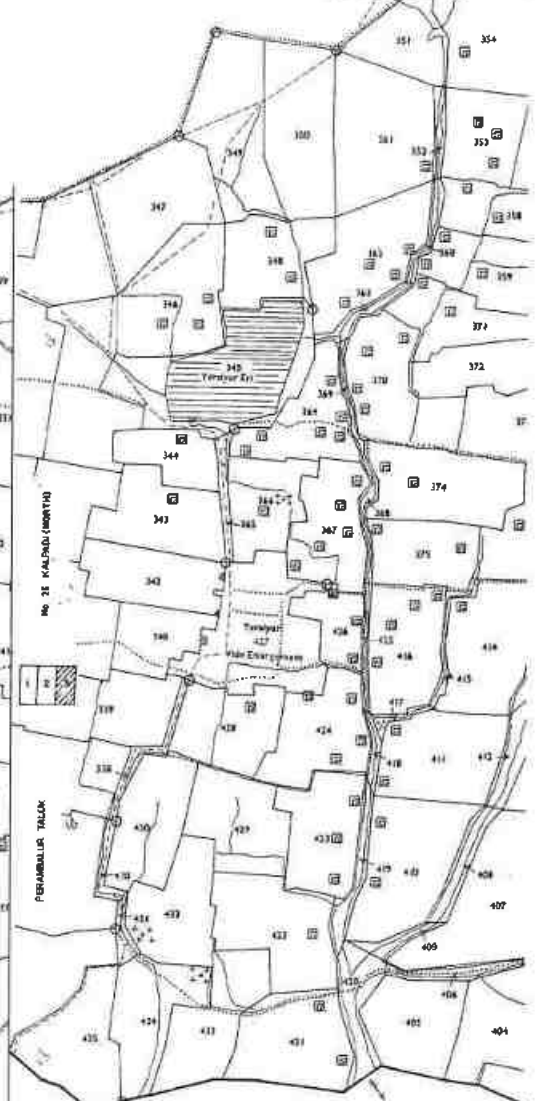


ANNEXURE



Survey Map.	Name of details
19 a	Sapachikudi Kudi
21 a	Chettimani Kudi
21 & 27	Vediyar Kudi
61	Vediyar Kudi
81 & 200 a	Sheet Kudi
81 b	Marudam Kudi
204 b	Pillayar Kudi
— c	Annam Kudi
— d	Nallandam Kudi

LEASE APPLIED AREA



NA

Page 1 of 1



Government of India

Form GST REG-06

[See Rule 10(1)]

Registration Certificate

Registration Number : 33EUCPM0991L1ZC



1.	Legal Name	MARIMUTHU R			
2.	Trade Name, if any	R.R.M TRANSPORT			
3.	Additional trade names, if any				
4.	Constitution of Business	Proprietorship			
5.	Address of Principal Place of Business	Building No./Flat No.: 1/303, Ward-2 Road/Street: Ariyalur Main Road Locality/Sub Locality: Kavulpalayam, Thuraimangalam City/Town/Village: Perambalur District: Perambalur State: Tamil Nadu PIN Code: 621220			
6.	Date of Liability				
7.	Period of Validity	From	25/01/2024	To	Not Applicable
8.	Type of Registration	Regular			
9.	Particulars of Approving	Centre			
Signature					
Signature valid Digitally signed by Jayashree Thiyagarajan SERVICES TAX NETWORK 07 Date: 2024.01.25 16:53:12 IST					
Name		Jayashree Thiyagarajan			
Designation		Superintendent			
Jurisdictional Office		PERAMBALUR			
Date of Issue of Certificate		25/01/2024			
Note: The registration certificate is required to be prominently displayed at all places of business in the State.					

This is a system generated digitally signed Registration Certificate issued based on the approval of application granted on 25/01/2024 by the jurisdictional authority.

Annexure A



Goods and Services Tax Identification Number: 33EUCPM0991L1ZC

Details of Additional Place of Business(s)

Legal Name	MARIMUTHU R
Trade Name, if any	R.R.M TRANSPORT

Total Number of Additional Places of Business in the State 0



Goods and Services Tax Identification Number: 33EUCPM0991L1ZC

Legal Name

MARIMUTHU R

Trade Name, if any

R.R.M TRANSPORT

Details of Proprietor

1



Name

MARIMUTHU R

Designation/Status

PROPRIETOR

Resident of State

Tamil Nadu

ANNEXURE

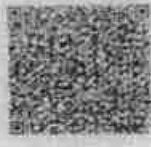
ST



 இந்திய அரசாங்கம்
Government of India



மரிமுத்து ர
Marimuthu R
பிறந்த நாள்/DOB: 16/06/2001
ஆண் / MALE



6408 2367 7871

எனது ஆதார். எனது அடையாளம்

 Unique Identification Authority of India

Address: S/O Ramaraj, 303, ARIYALUR MAIN ROAD, KOVULPALAYAM, Thoramangalam, Perambalur, Tamil Nadu - 621220

முகவரி: S/O ரமராஜ், ரை 303, அரியலுர் ரோடு, கோவல்பாளையம், தோரமங்கலம், பெரம்பலூர், தமிழ்நாடு - 621220

6408 2367 7871



CHETTINAD CEMENT CORPORATION LTD.

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

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

ANNEXURE



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.

<u>Name of the Pit.</u>	<u>Average Raising/day.</u>
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.



Faculty of Science

The Senate of the Annamalai University hereby makes known that B. 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.

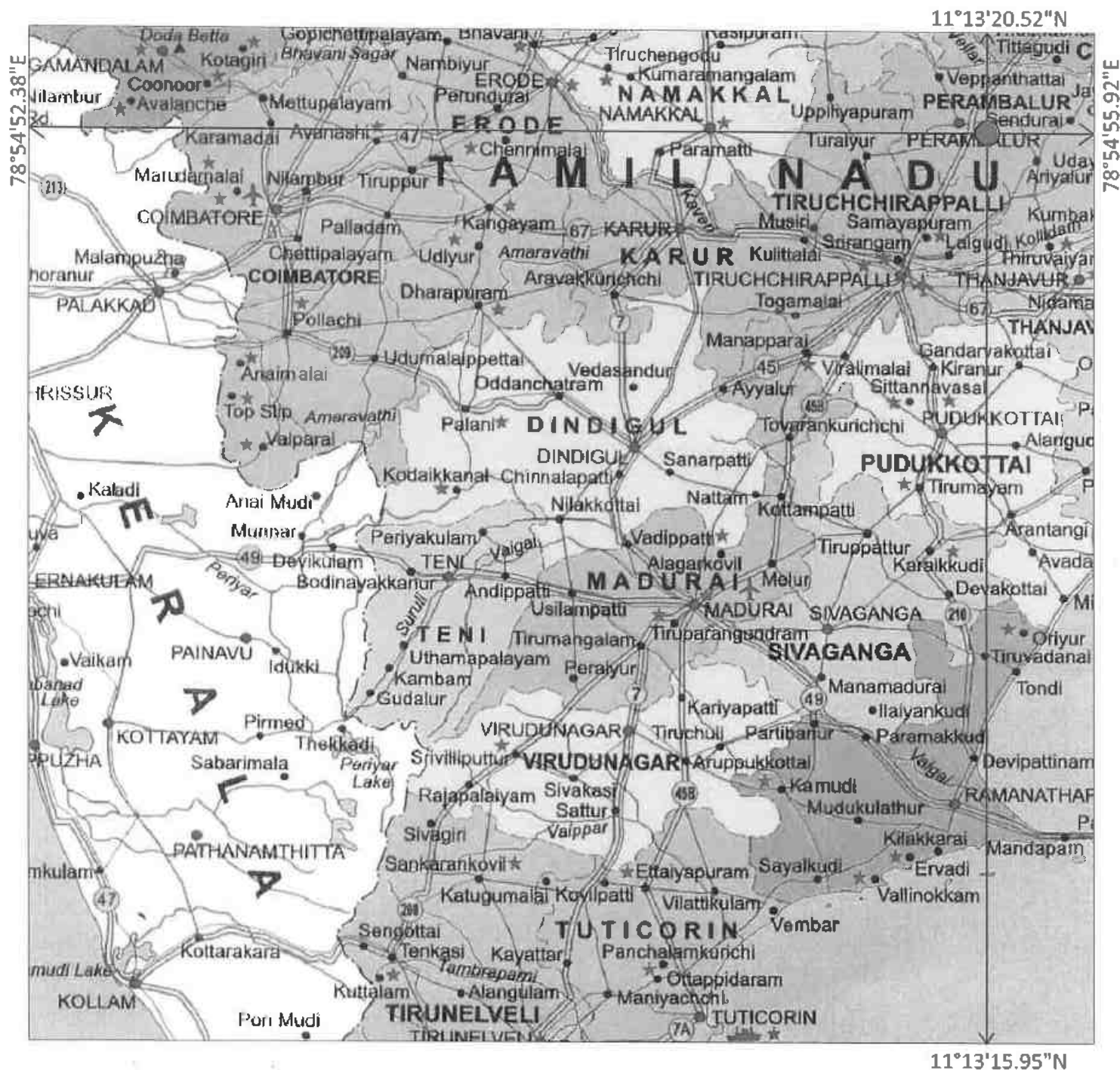


PLATE NO-I

DATE OF SURVEY : 03.05.2025

APPLICANT:

M/S RRM TRANSPORT,
NO.1/303, ARYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR - 621 220.

QUARRY APPLIED LEASE AREA:

S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

INDEX

Q. L. APPLIED AREA : ●

TOPO SHEET NO : 58 I / 16

LATITUDE : 11°13'15.95"N to 11°13'20.52"N

LONGITUDE : 78°54'52.38"E to 78°54'55.92"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

C. Natarajan
C. NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON





PLATE NO-IA
DATE OF SURVEY : 03.05.2025

APPLICANT:
M/s.RRM TRANSPORT,
NO.1/303, ARIYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR - 621 220.

LAND USE PATTERN

DESCRIPTION	AREA IN (%)
ROAD	04
TREES	08
BARREN LAND	25
AGRICULTURE	30
HABITATIONS	13
WATER BODIES	05
HILLOCK	14

QUARRY APPLIED LEASE AREA

S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

INDEX

TOPO SHEET NO : 581/16

LATITUDE : 11°13'15.95"N to 11°13'20.52"N

LONGITUDE : 78°54'52.38"E to 78°54'55.92"E

Q.L.APPLIED AREA

10m SAFETY

300M RADIUS

500M RADIUS

1KM RADIUS

APPROACH ROAD

QUARRY ROAD

PANCHAYAT ROAD

BARREN LAND

TREES

AGRICULTURAL LAND

HABITATIONS

QUARRY PIT

CRUSHER PLANT

ODAI

TANK

HILLOCK

RIVER

ENVIRONMENTAL PLAN

SCALE 1:10,000

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GOVERNMENT

C. Natarajan
C.NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON

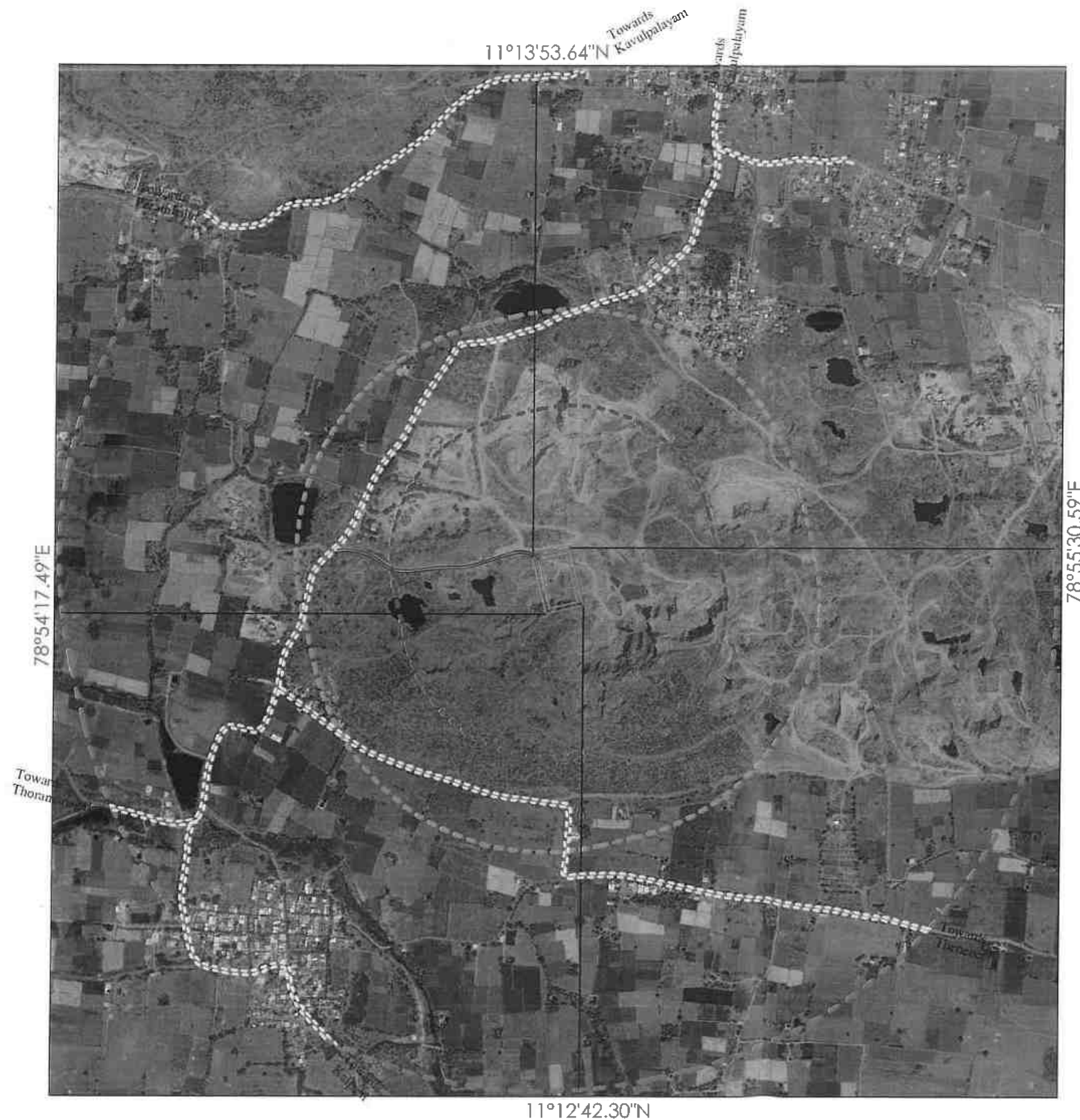


PLATE NO-IB

DATE OF SURVEY : 03.05.2025

APPLICANT:

M/s.RRM TRANSPORT,
NO.1/303, ARIYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR - 621 220.

QUARRY APPLIED LEASE AREA:

S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

INDEX

TOPO SHEET NO : 581 / 16

LATITUDE : 11°13'15.95"N to 11°13'20.52"N

LONGITUDE : 78°54'52.38"E to 78°54'55.92"E

Q.L.APPLIED AREA	
10m SAFETY	
300M RADIUS	
500M RADIUS	
1KM RADIUS	
APPROACH ROAD	
PANCHAYAT ROAD	

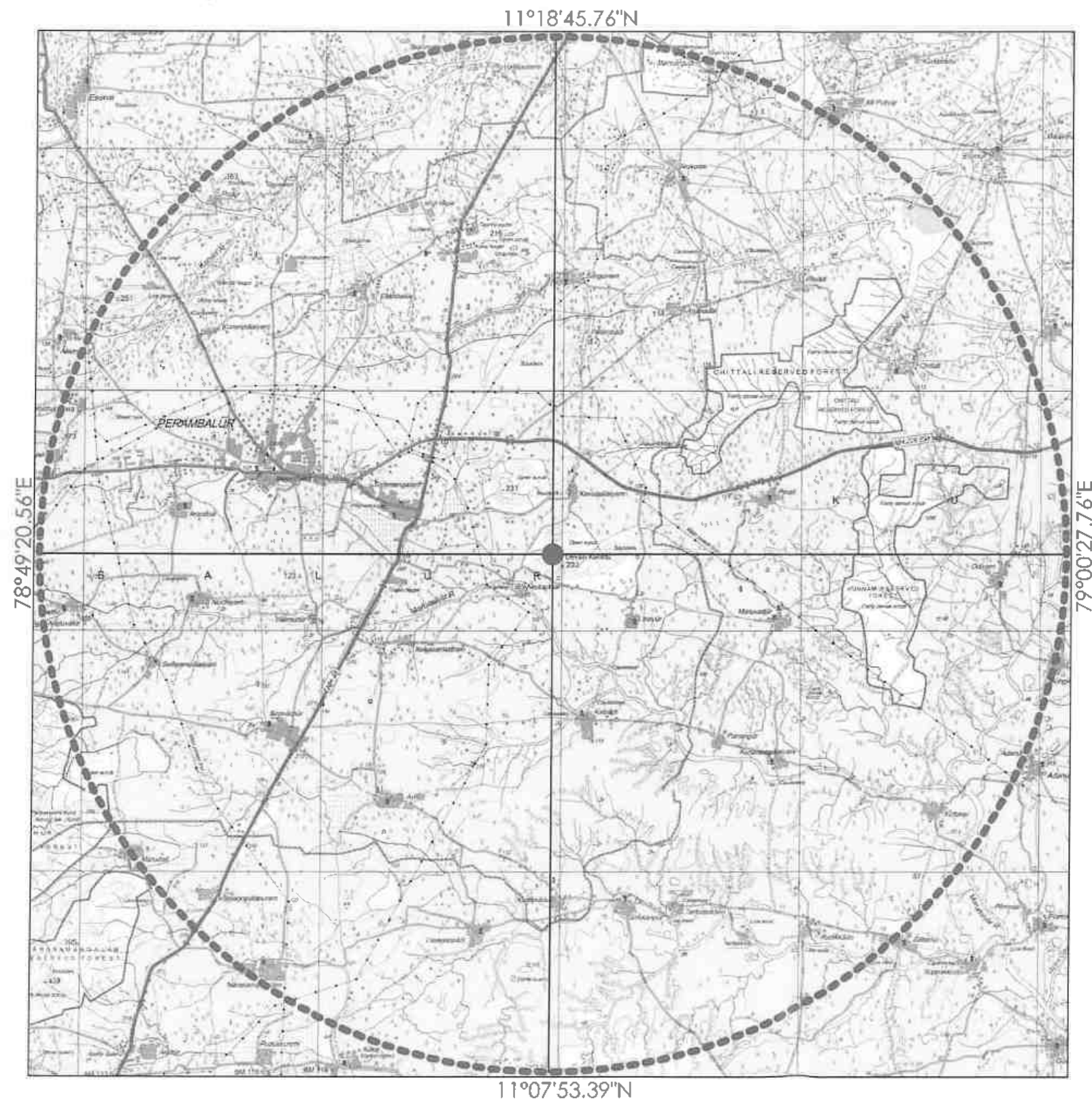
SATELLITE IMAGERY MAP

SCALE 1:10,000

PREPARED BY :

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GOVERNMENT

C.NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON

[illegible]

C. NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON

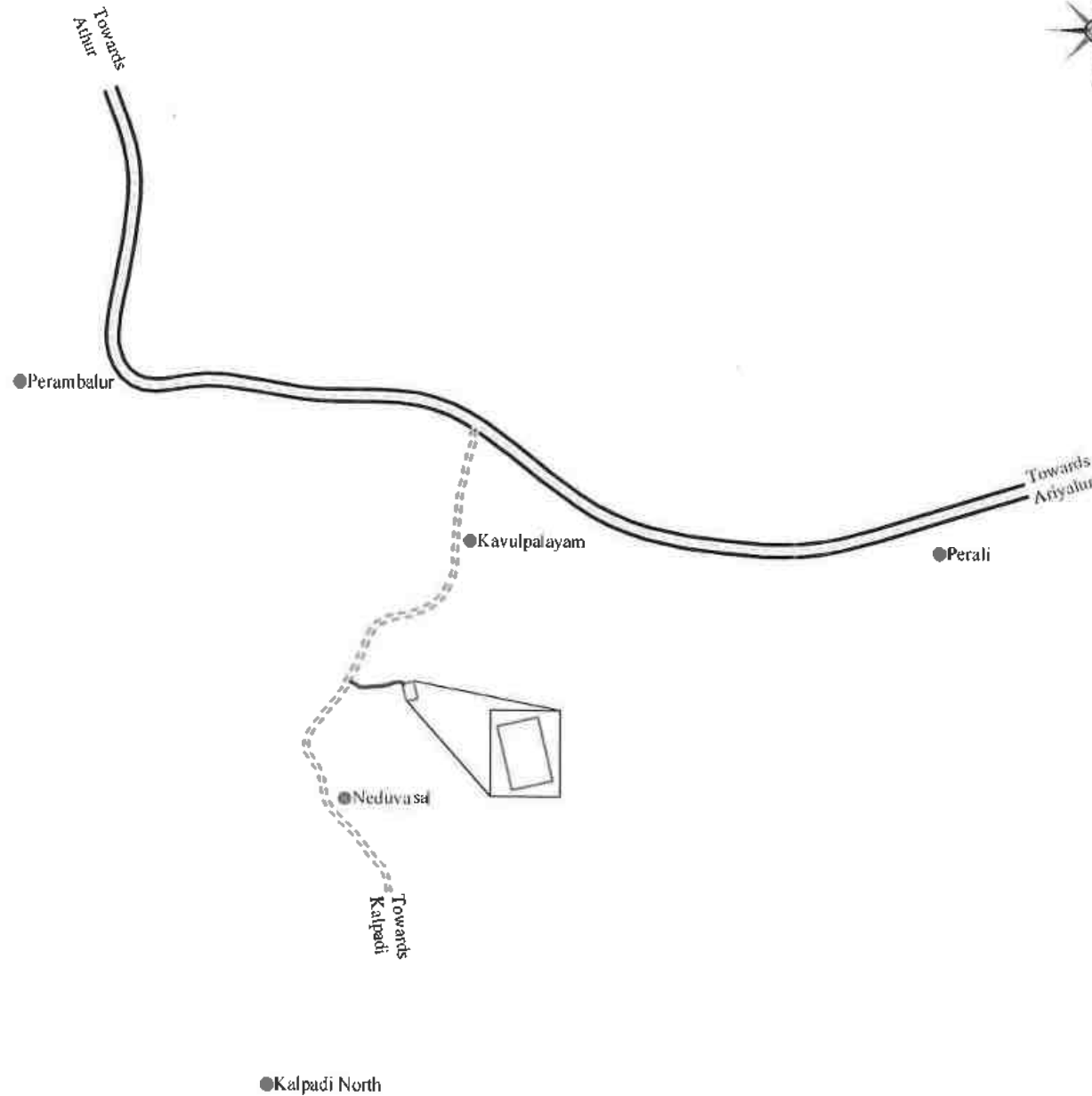


PLATE NO-ID

DATE OF SURVEY : 03.05.2025

APPLICANT:

M/s.RRM TRANSPORT,
NO.1/303, ARIYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR - 621 220.

QUARRY APPLIED LEASE AREA:

S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

INDEX

Q.L. APPLIED AREA



APPROACH ROAD



PANCHAYAT ROAD



NATIONAL HIGHWAY



HABITATIONS



KEY PLAN

Not To Scale

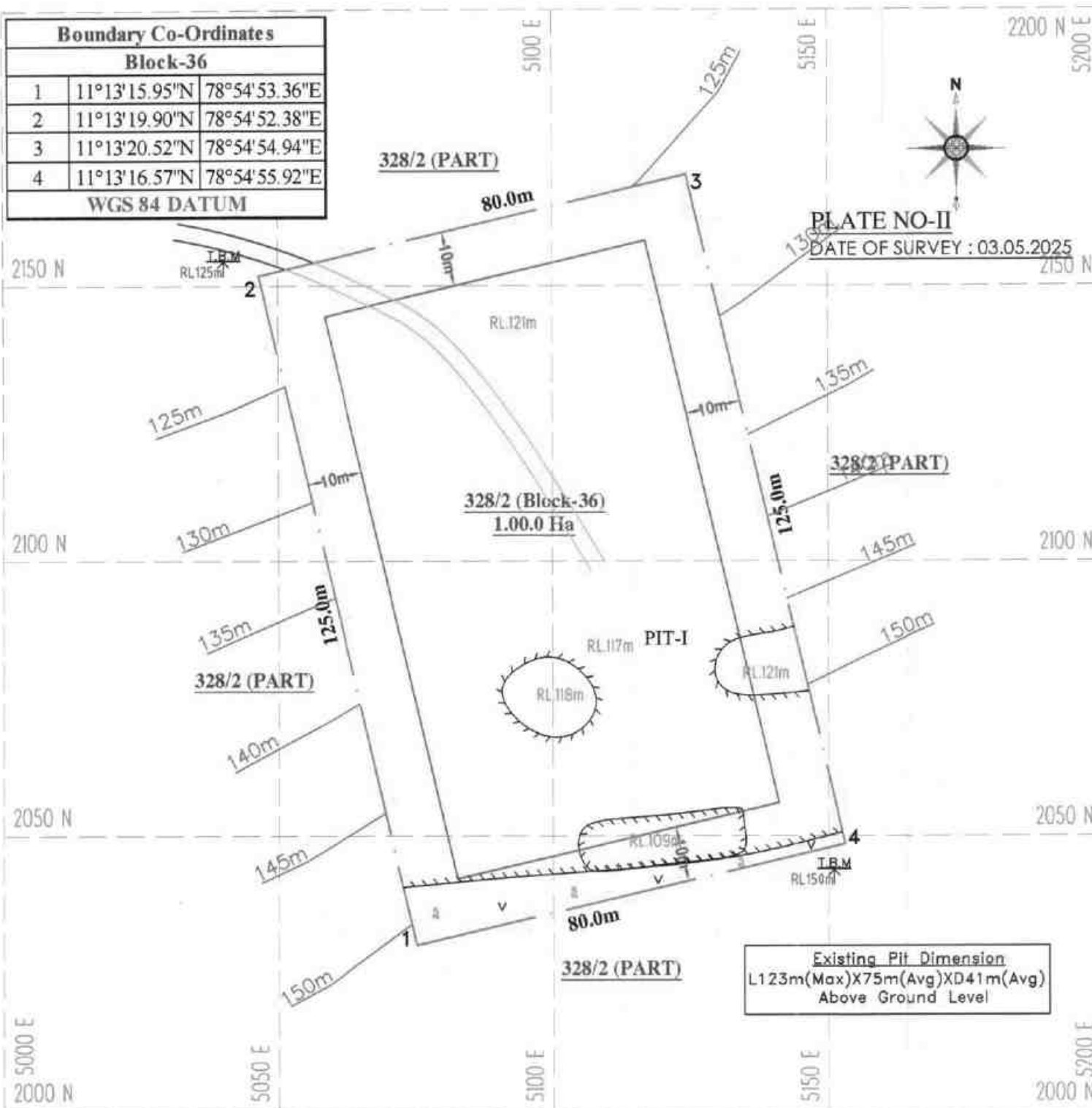
PREPARED BY:

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GOVERNMENT

C. Natarajan
C. NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON

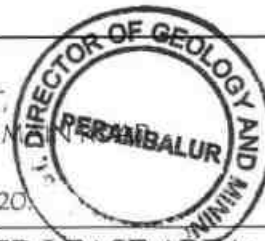


Boundary Co-Ordinates		
Block-36		
1	11°13'15.95"N	78°54'53.36"E
2	11°13'19.90"N	78°54'52.38"E
3	11°13'20.52"N	78°54'54.94"E
4	11°13'16.57"N	78°54'55.92"E
WGS 84 DATUM		



APPLICANT:

M/s.RRM TRANSPORT,
NO.1/303, ARIYALUR M,
KAVULPALAYAM,
PERAMBALUR - 621 220.



QUARRY APPLIED LEASE AREA:

S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

INDEX

Q.L. APPLIED BOUNDARY



10m SAFETY DISTANCE



TEMPORARY BENCH MARK



APPROACH ROAD



QUARRY ROAD



CONTOUR



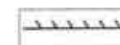
SCRUB



TOP SOIL



QUARRY PIT



QUARRY LEASE & SURFACE PLAN

SCALE 1 : 1000

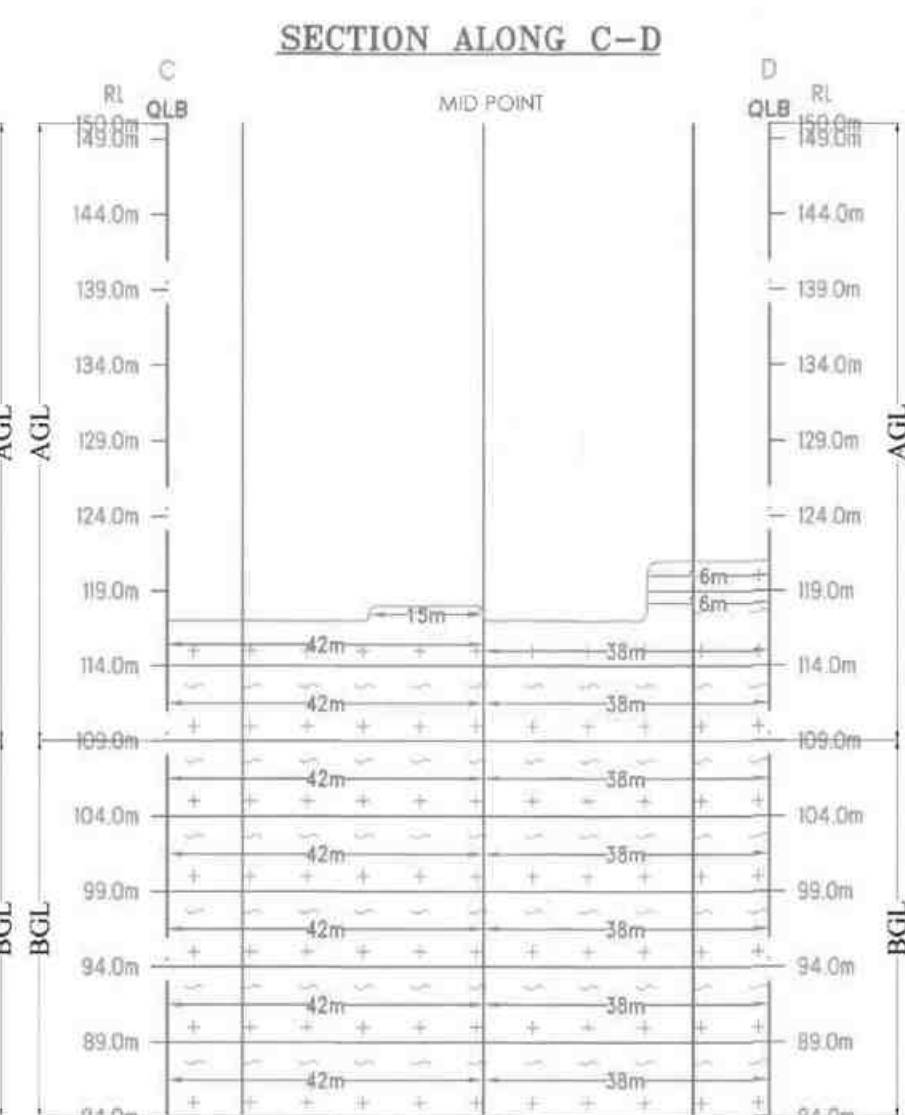
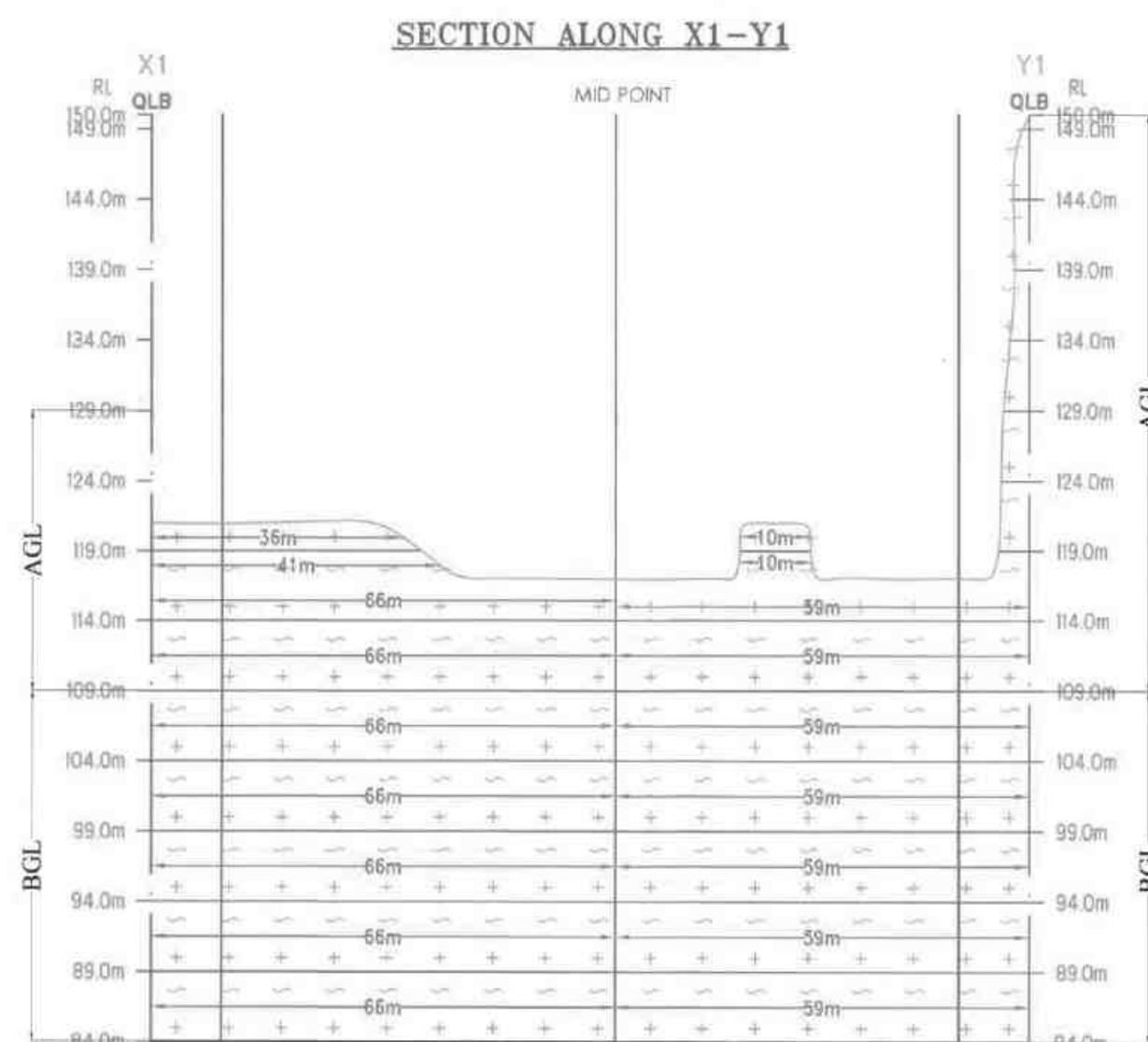
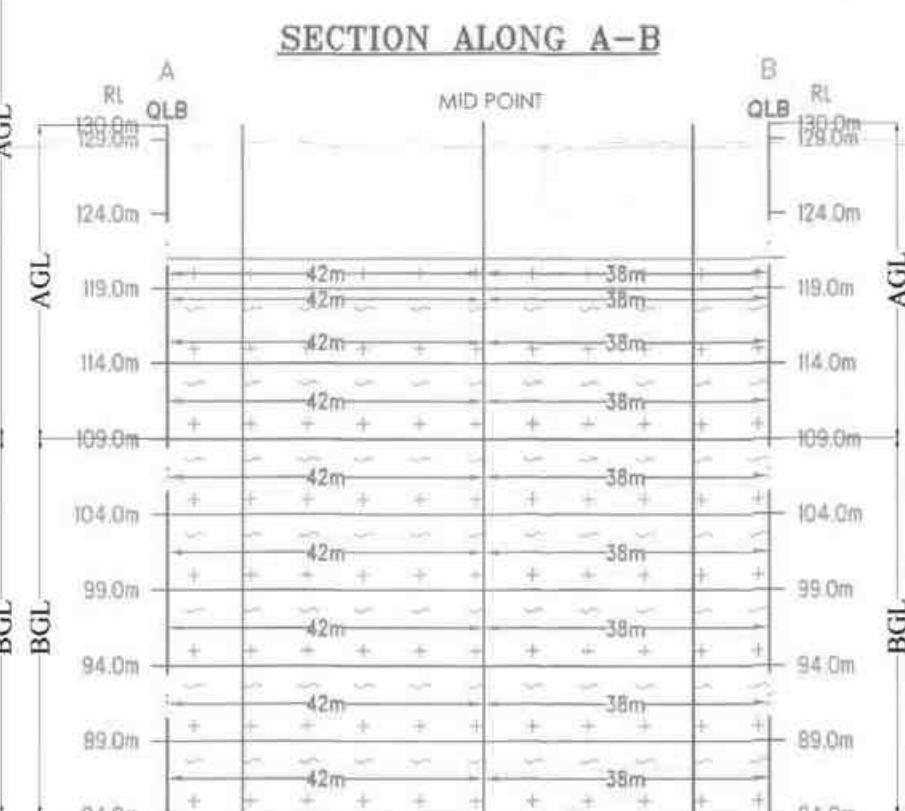
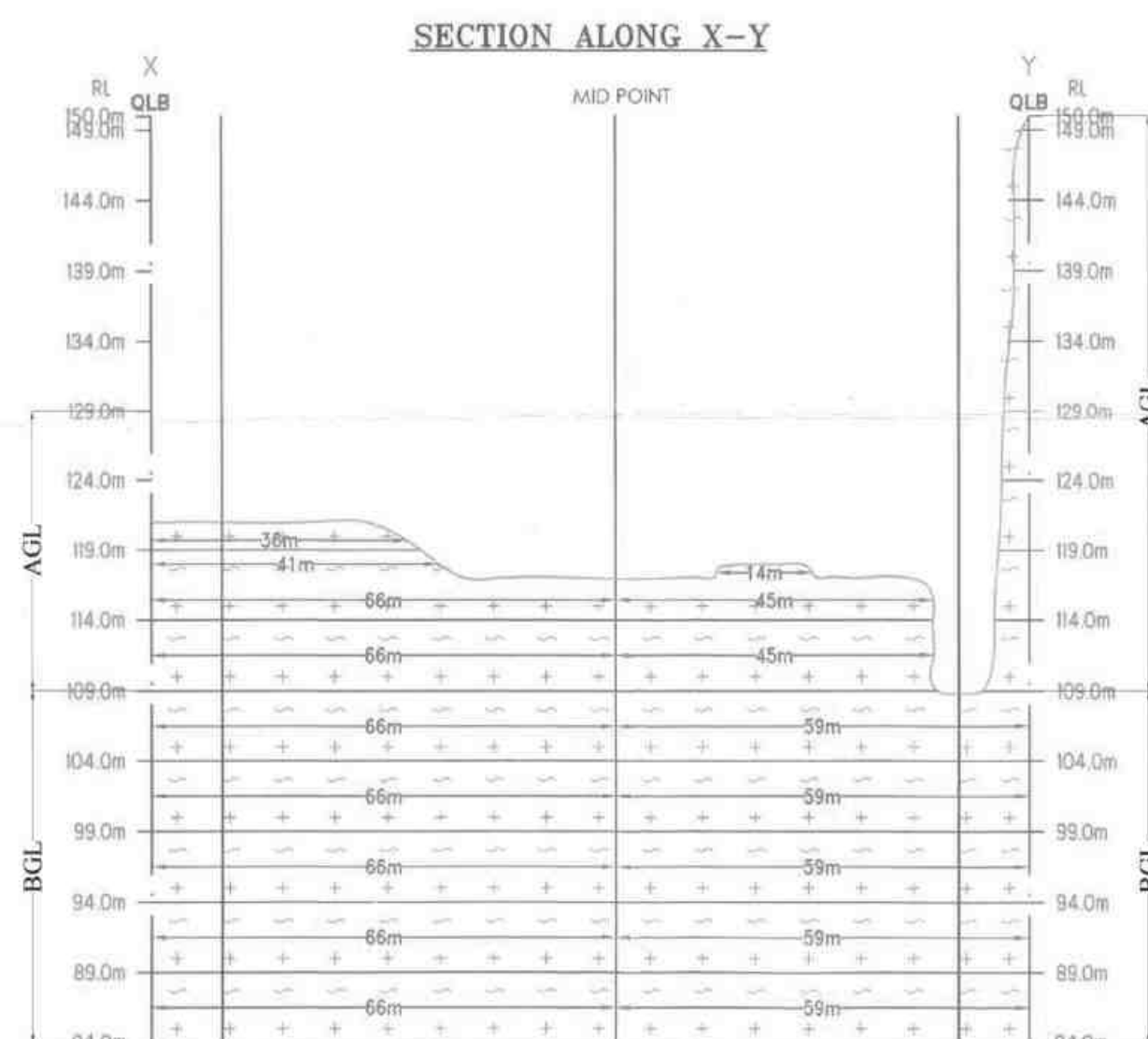
PREPARED BY:

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THE BEST OF MY KNOWLEDGE BASED UPON
THE LEASE MAP AUTHENTICATED BY STATE
GOVERNMENT

C. Natarajan
C. NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON

Existing Pit Dimension
L123m(Max)X75m(Avg)XD41m(Avg)
Above Ground Level

Boundary Co-Ordinates		
Block-36		
1	11°13'15.95"N	78°54'53.36"E
2	11°13'19.90"N	78°54'52.38"E
3	11°13'20.52"N	78°54'54.94"E
4	11°13'16.57"N	78°54'55.92"E
WGS 84 DATUM		



AGL-Above Ground Level
BGL-Below Ground Level

PLATE NO-III
DATE OF SURVEY : 03.05.2025

APPLICANT:
M/s.RRM TRANSPORT,
NO.1/303, ARIYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR - 621 220.

QUARRY APPLIED LEASE AREA:
S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

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Q.L. APPLIED BOUNDARY

10m SAFETY DISTANCE

TEMPORARY BENCH MARK

APPROACH ROAD

QUARRY ROAD

CONTOUR

SCRUB

TOP SOIL

QUARRY PIT

ROUGH STONE

STRIKE & DIP

TOPOGRAPHY & GEOLOGICAL
PLAN & SECTIONS

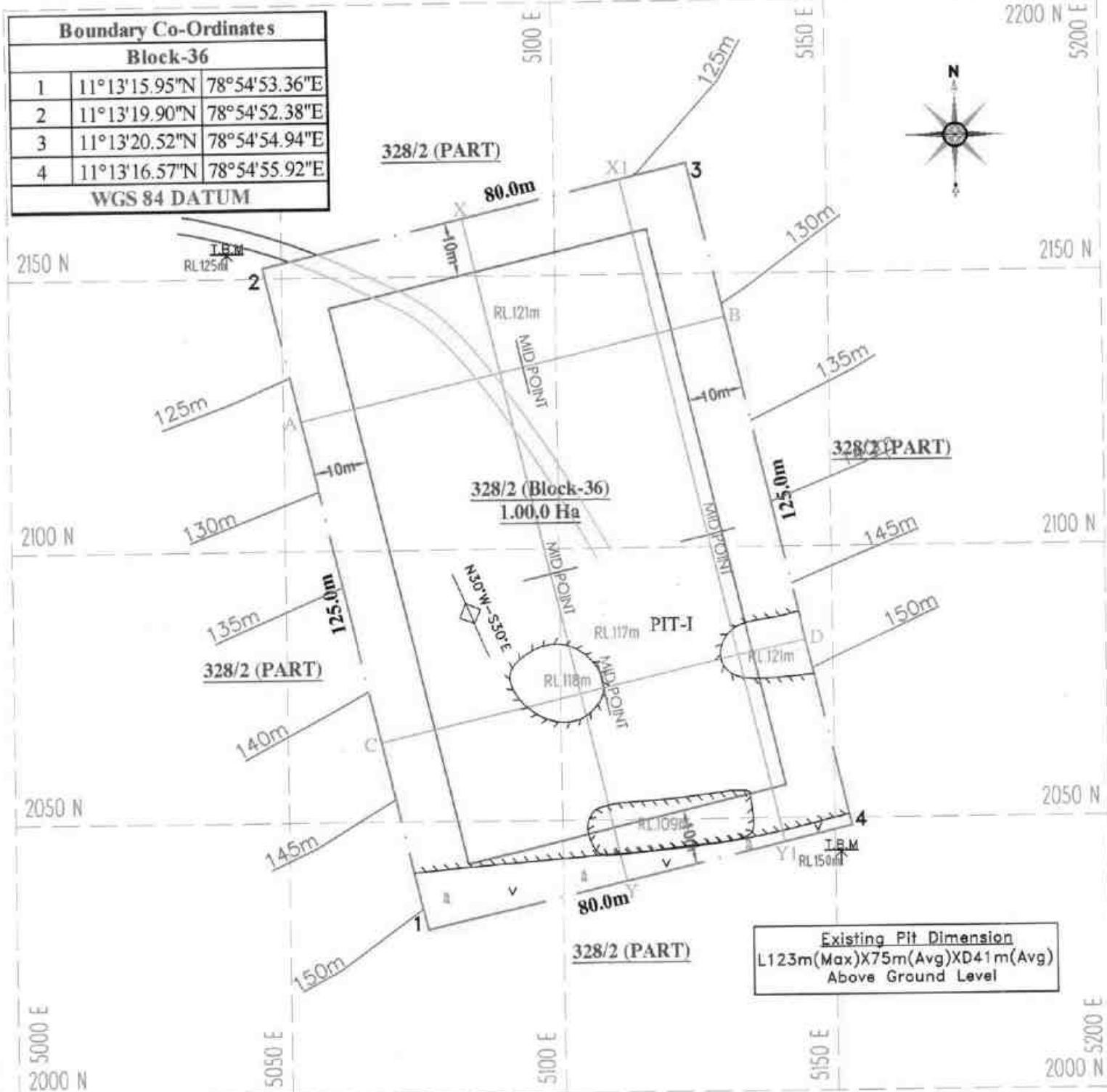
SCALE 1:1000

SECTIONS HOR 1:1000, VER 1:500

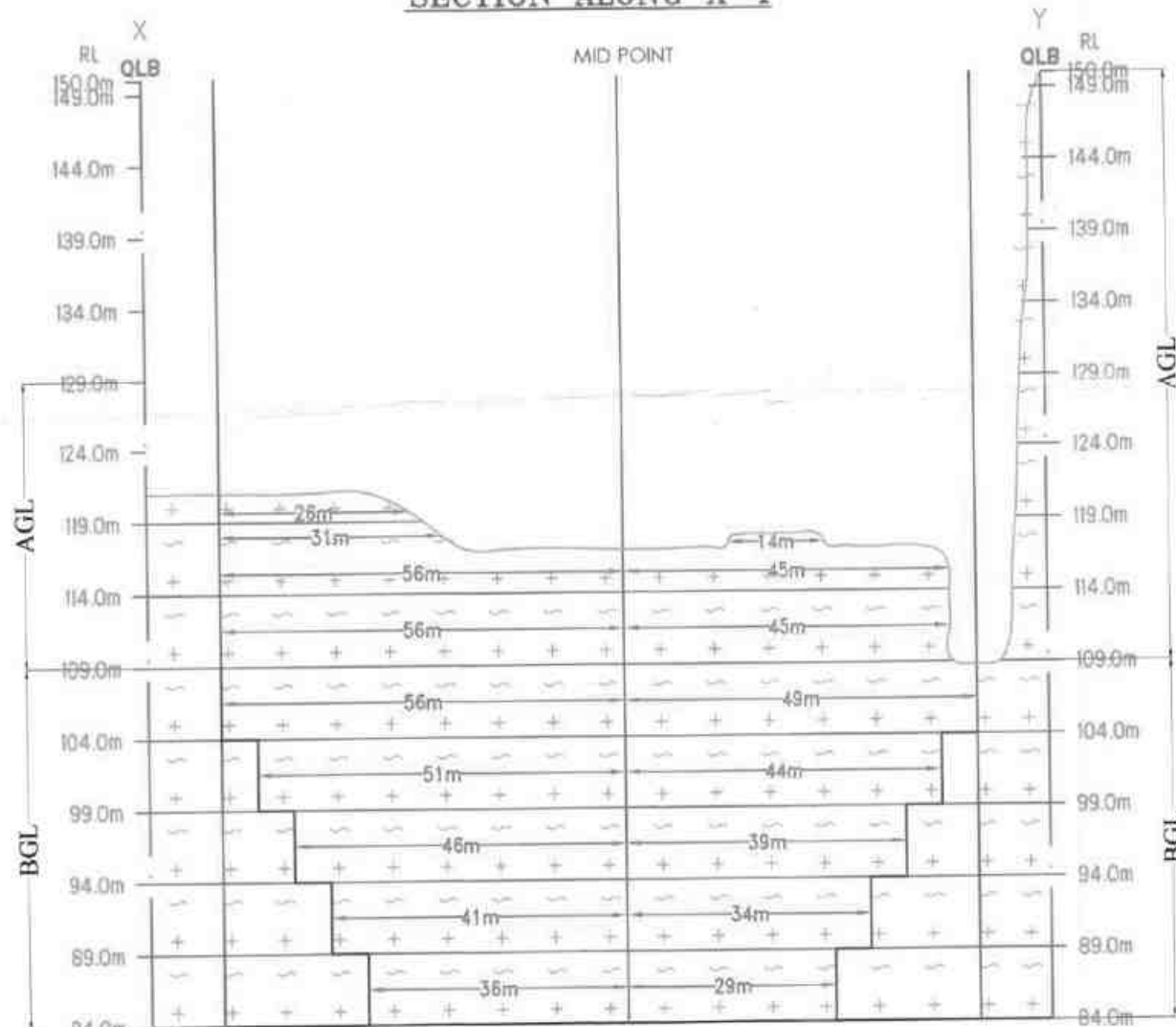
PREPARED BY:	

THIS IS TO CERTIFY THAT THE INFORMATION
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GOVERNMENT

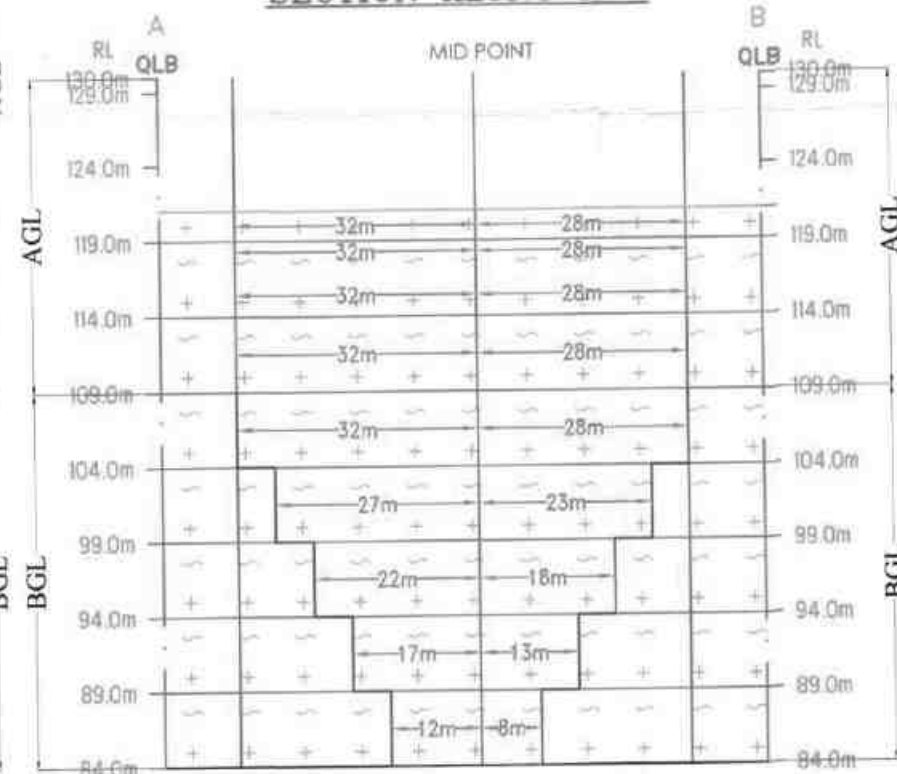
C. NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON



SECTION ALONG X-Y



SECTION ALONG A-B



AGL-Above Ground Level
BGL-Below Ground Level

PLATE NO-IV

DATE OF SURVEY : 03.09.2015

APPLICANT:

M/s. RRM TRANSPORT,
NO.1/303, ARIYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR - 621 220.

QUARRY APPLIED LEASE AREA:

S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

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- Q.L. APPLIED BOUNDARY
- 10m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- QUARRY ROAD
- CONTOUR
- SCRUB
- TOP SOIL
- QUARRY PIT
- ROUGH STONE
- STRIKE & DIP

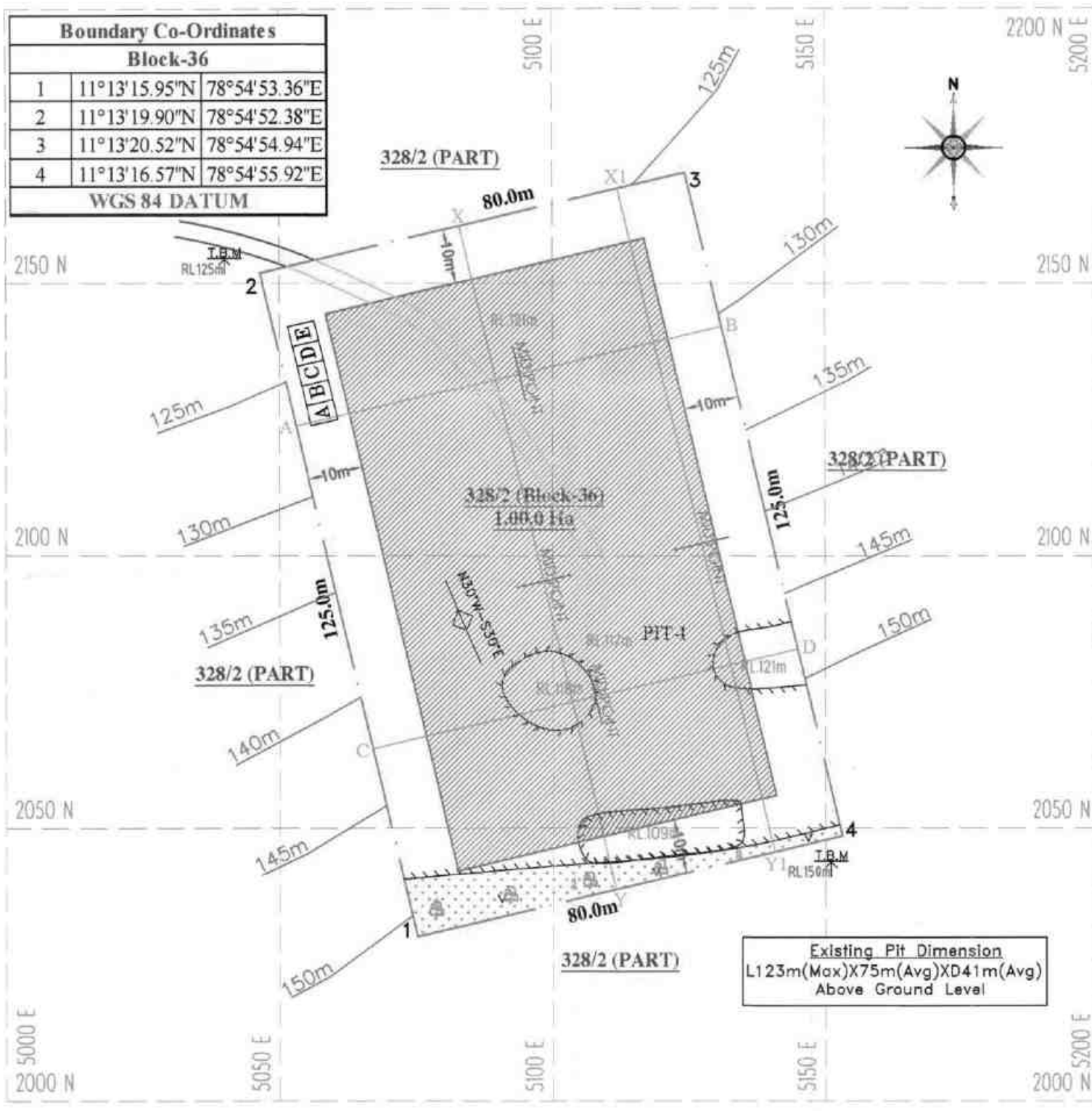
MINEABLE
PLAN & SECTIONS

SCALE 1:1000
SECTIONS HOR 1:1000, VER 1:500

PREPARED BY:

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GOVERNMENT

C. NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON



PRESENT & POST LAND USE PATTERN

DESCRIPTION	PRESENT AREA (Ha)	AREA AT THE END OF THIS QUARRYING PERIOD (Ha)
AREA UNDER QUARRYING	0.92.5	0.92.5
INFRASTRUCTURE	NII	0.01.0
ROADS	0.01.0	0.01.0
GREEN BELT	NII	0.05.5
UN-UTILIZED AREA	0.06.5	NII
GRAND TOTAL	1.00.0	1.00.0

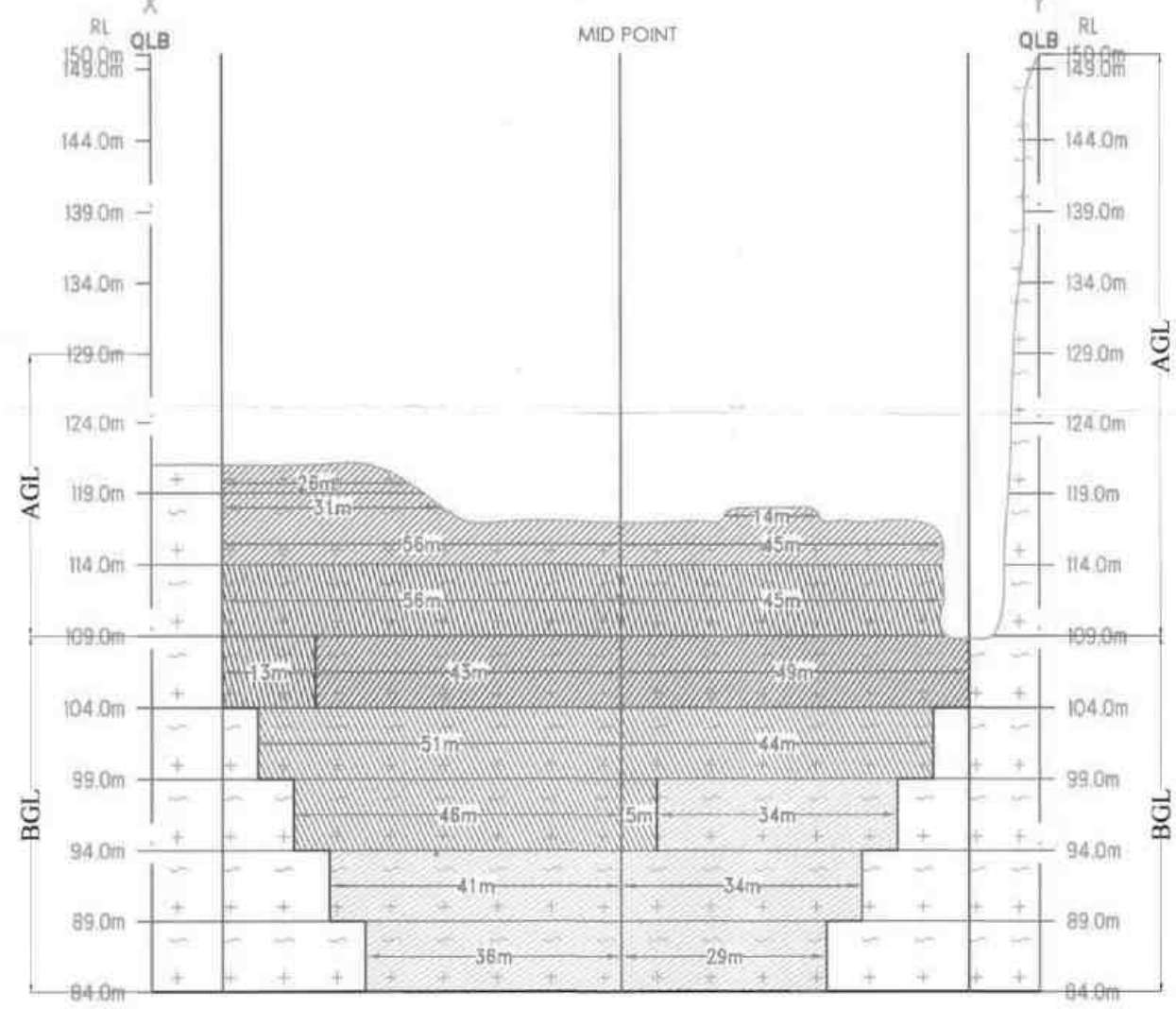
- 1st yr Proposed area to be Quarried
- 2nd yr Proposed area to be Quarried
- 3rd yr Proposed area to be Quarried
- 4th yr Proposed area to be Quarried
- 5th yr Proposed area to be Quarried

Proposed area to be Planted

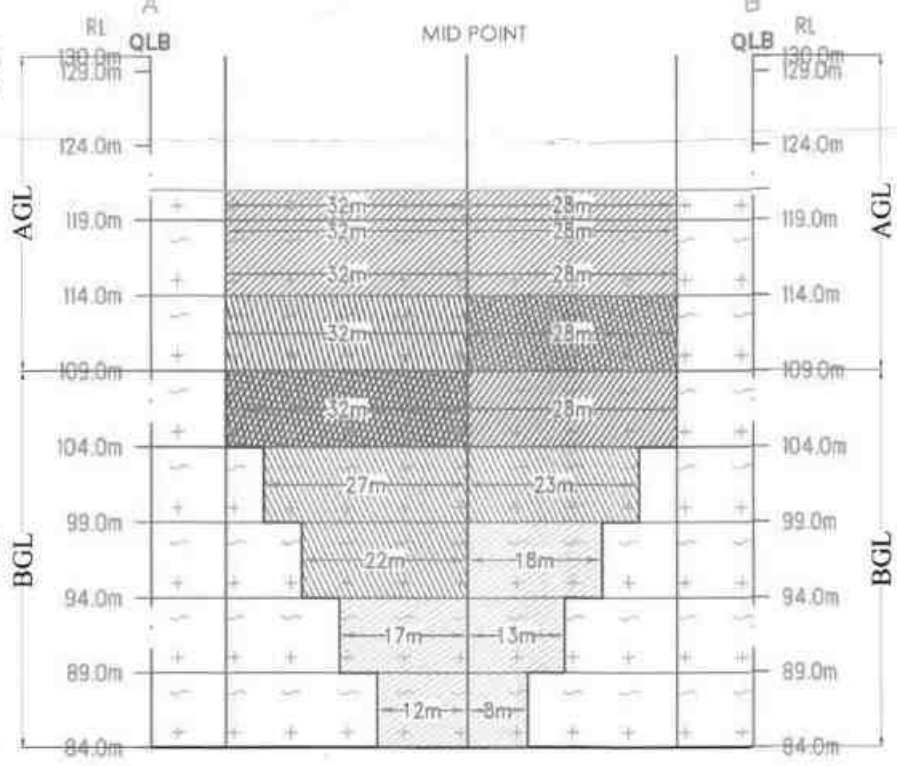
AGL-Above Ground Level
BGL-Below Ground Level

- PROPOSED SITE SERVICES**
- A - OFFICE
 - B - STORE ROOM
 - C - FIRST AID ROOM
 - D - REST SHELTER
 - E - TOILET

SECTION ALONG X-Y

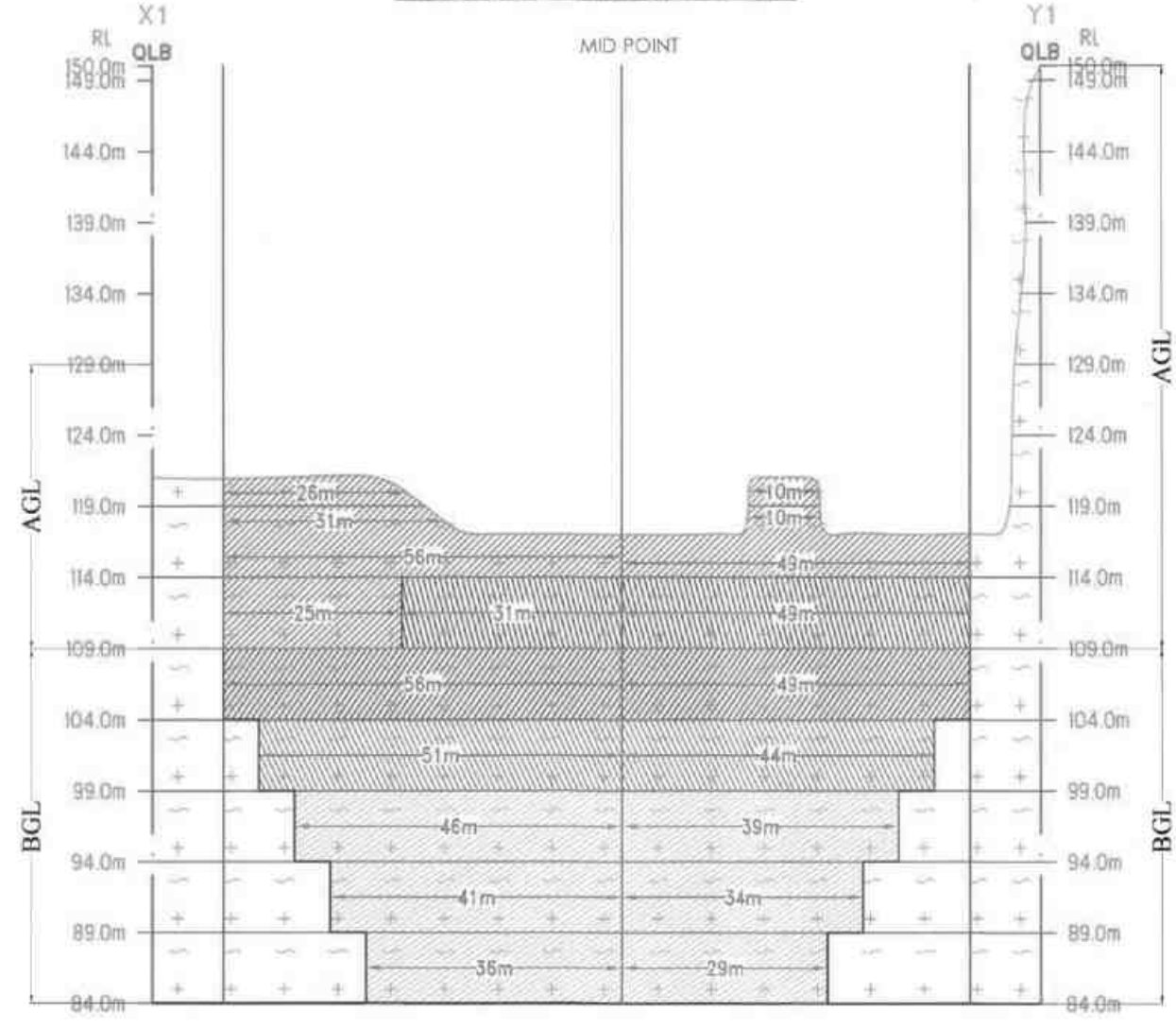


SECTION ALONG A-B



AGL-Above Ground Level
BGL-Below Ground Level

SECTION ALONG X1-Y1



SECTION ALONG C-D

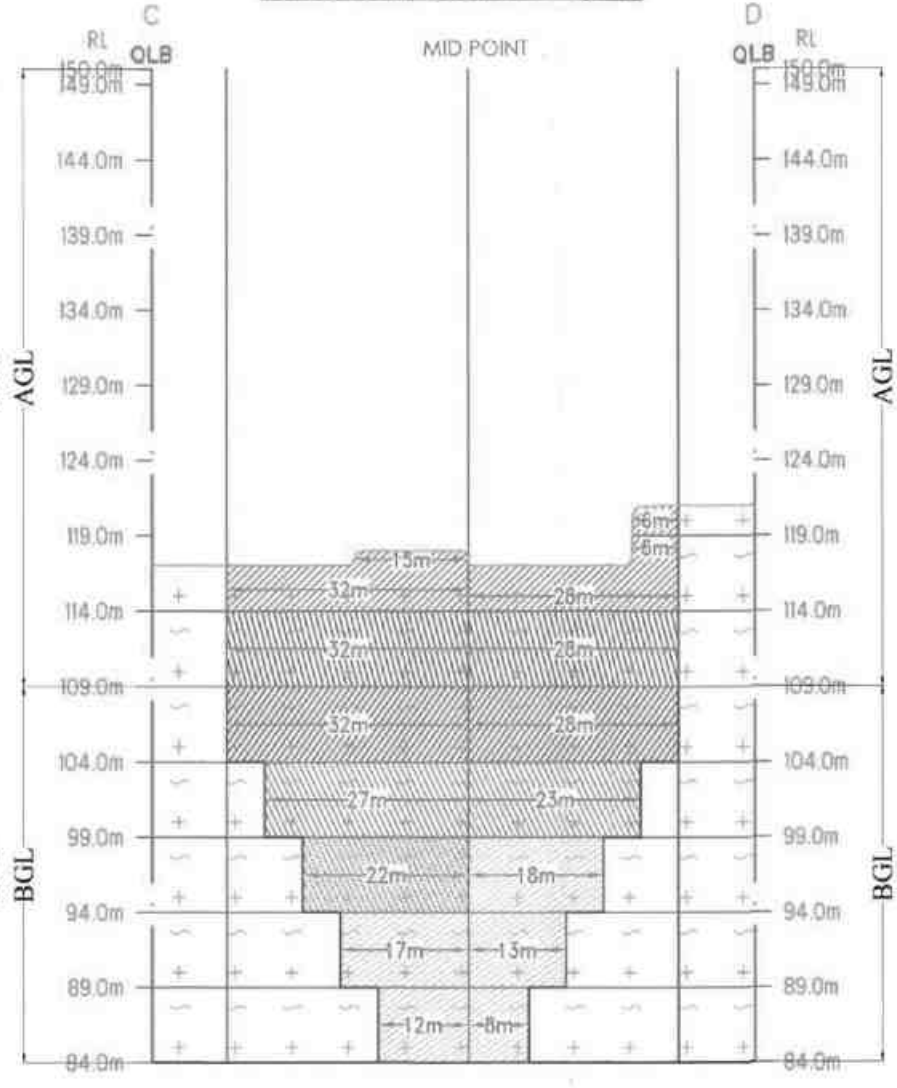


PLATE NO-V
DATE OF SURVEY : 03.05.2025

APPLICANT:
M/s.RRM TRANSPORT
NO.1/303, ARIYALUR MAIN ROAD,
KAVULPALAYAM,
PERAMBALUR - 621 220.

QUARRY APPLIED LEASE AREA:
S.F.NO : 328/2 (BLOCK-36),
EXTENT : 1.00.0 Ha,
VILLAGE : KALPADI (NORTH),
TALUK : PERAMBALUR,
DISTRICT : PERAMBALUR.

INDEX

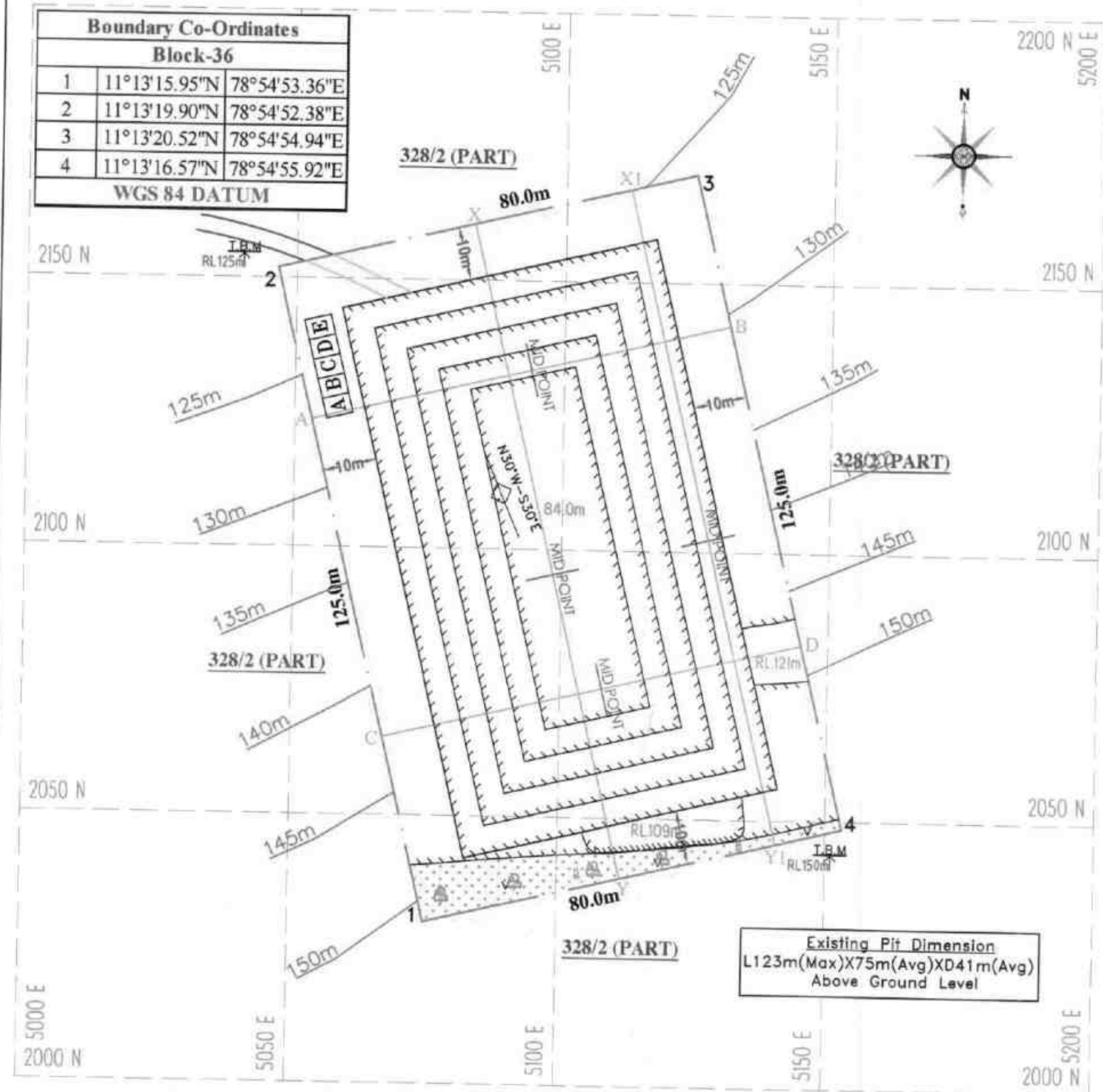
- Q.L. APPLIED BOUNDARY
- 10m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- QUARRY ROAD
- CONTOUR
- SCRUB
- TOP SOIL
- QUARRY PIT
- ROUGH STONE
- STRIKE & DIP

YEARWISE DEVELOPMENT & PRODUCTION PLAN & SECTIONS
SCALE 1:1000
SECTIONS HOR 1:1000, VER 1:500

PREPARED BY:
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THE LEASE MAP AUTHENTICATED BY STATE
GOVERNMENT

C. NATARAJAN, M.Sc., M.Phil.,
QUALIFIED PERSON

Boundary Co-Ordinates		
Block-36		
1	11°13'15.95"N	78°54'53.36"E
2	11°13'19.90"N	78°54'52.38"E
3	11°13'20.52"N	78°54'54.94"E
4	11°13'16.57"N	78°54'55.92"E
WGS 84 DATUM		



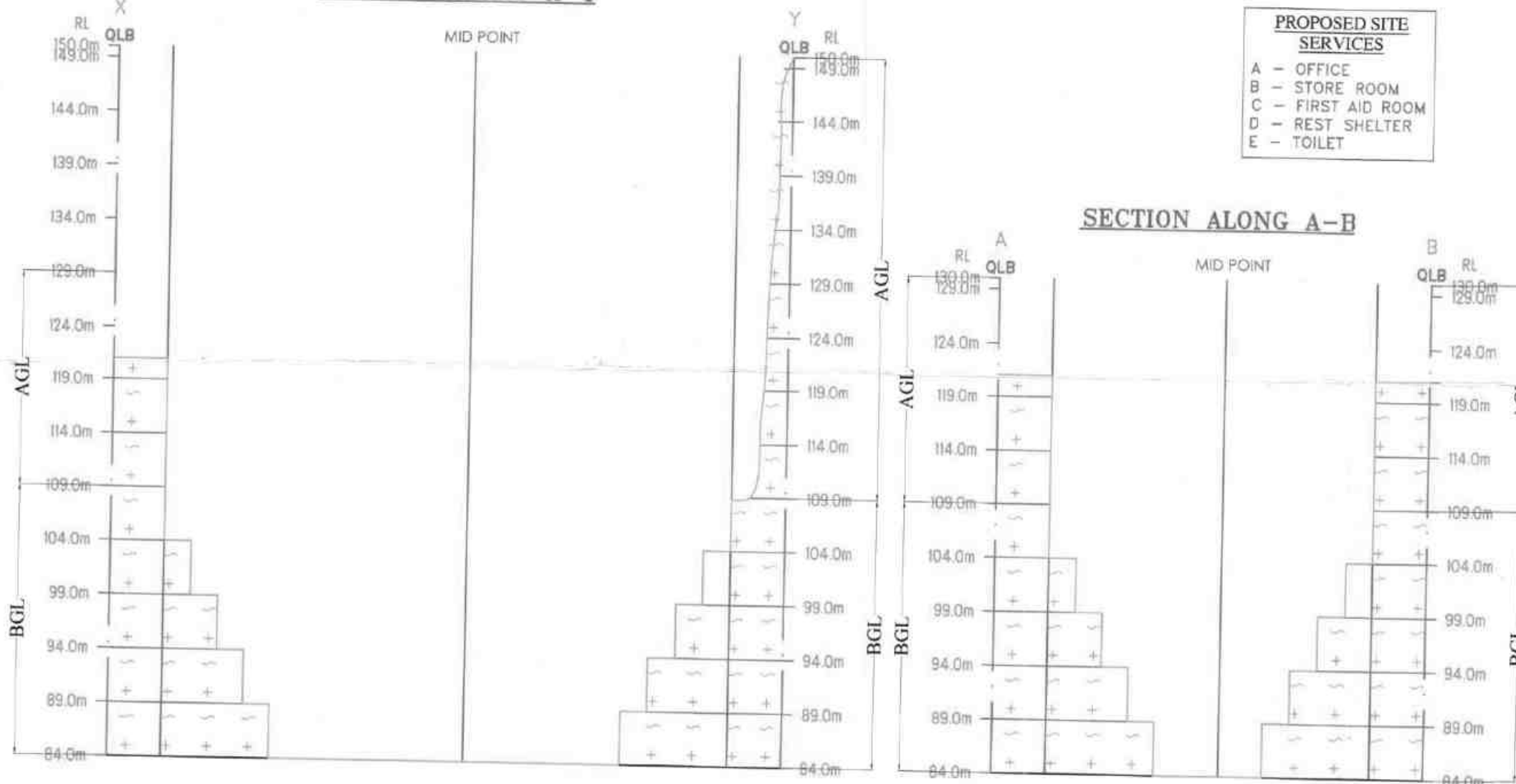
ULTIMATE PIT DIMENSION
 L123m(Max)X75m(Avg)XD66m(Max)
 41m Above Ground Level
 25m Below Ground Level

Proposed area to be Planted

AGL-Above Ground Level
 BGL-Below Ground Level

PROPOSED SITE SERVICES
 A - OFFICE
 B - STORE ROOM
 C - FIRST AID ROOM
 D - REST SHELTER
 E - TOILET

SECTION ALONG X-Y



AGL-Above Ground Level
 BGL-Below Ground Level

PLATE NO-VI

DATE OF SURVEY : 03.05.2025

APPLICANT:

M/s.RRM TRANSPORT,
 NO.1/303, ARIYALUR MAIN ROAD,
 KAVULPALAYAM,
 PERAMBALUR - 621 220.

QUARRY APPLIED LEASE AREA:

S.F.NO : 328/2 (BLOCK-36),
 EXTENT : 1.00.0 Ha,
 VILLAGE : KALPADI (NORTH),
 TALUK : PERAMBALUR,
 DISTRICT : PERAMBALUR.

INDEX

Q.L. APPLIED BOUNDARY	
10m SAFETY DISTANCE	
TEMPORARY BENCH MARK	
APPROACH ROAD	
QUARRY ROAD	
CONTOUR	
SCRUB	
TOP SOIL	
PROPOSED QUARRY PIT	
ROUGH STONE	
STRIKE & DIP	

CONCEPTUAL PLAN & SECTIONS

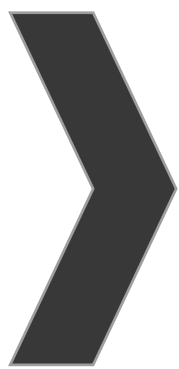
SCALE 1:1000

SECTIONS HOR 1:1000, VER 1:500

PREPARED BY:

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 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

M/s. R R M Transport,
1/303, Ariyalur Main Road,
Kavulpalayam,
Perambalur - 621220.

Rc.No.104/G&M/2025

Dated: 18.06.2025

Sub: Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands - M/s. R R M Transport quoted highest Bid amount (H1) for the quarry in S.F.No. 328/2 (Block 36), OAE of 1.00.0 hectare in Kalpadi (North) Village, Perambalur 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.104/G&M/2025, dated: 28.03.2025 &
 4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.104/G&M/2025, dated 02.05.2025.
 5. M/s. R R M Transport, letter dated. 02.06.2025.

The applicant M/s. R R M Transport, 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.

Hence the details of existing quarries situated within 500 mts radial distance from the subject area are furnished as follows,

1)Existing quarries:

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	GO. No	Lease Period	Remarks
1.	Thiru.N.Premkumar, S/o. Narayanasamy, No. 144/2, East Street, Venkatramanapuram, Ariyalur-621 705	Kalpadi (North), Perambalur	328/2 (Block- 28)	1.00.0	Rc.No.129 /G&M/20 19 dated 23.06.202 1	5 years From: 30.06.2021 To : 29.06.2026	Working
2.	Thiru.C.MURUGESAN S/o.Thiru.Chinnappa n, Kaliyamman Nagar, Kavulpalayam, Perambalur.	Kalpadi (N), Perambalur Taluk	328/2 (Block- 24)	1.00.0	Rc.No.128 /G&M/20 19 dated 30.12.202 1	5 years From: 30.12.2021 To : 29.12.2026	Working

3.	Sri Vinayaka Minerals, No.9, 5th street, Nandanam Extension, Chennai.600035	Kalpadi (N), Perambalur Taluk	328/2 (Block-8)	2.00.0	Rc.No.125 /G&M/20 19 dated 04.01.2022	5 years From: 04.01.2022 To : 03.01.2027	Working
4.	M/s. SS Mines and Minerals, No.1/189-A, 5th street, Vasan city, Somarasampettai, Srirangam Taluk, Trichy District-620 102.	Kalpadi, Perambalur Taluk	328/2 (Block-17)	1.00.0	Rc.No.126 /G&M/20 19 dated 05.07.2022	5 years , From: 05.07.2022 To : 04.07.2027	Working
5.	Thiru.K.Gunasekaran , S/o. krishnasamy, No.97, Venkadjalapathi Nagar, New Bus stand, Perambalur District	Kalpadi, Perambalur Taluk	328/2 (Block-4)	1.00.0	Rc.No.123 /G&M/20 19 dated 05.07.2022	5 years , From: 05.07.2022 To : 04.07.2027	Working
6.	Thiru.S.Elumalai, s/o. Sengodan, Naranamangalam, Alathur Taluk, Perambalur 621 109	Kalpadi (N), Perambalur Taluk	328/2 (Block-6)	1.00.0	Rc.No.124 /G&M/20 19 dated 22.08.2022	5 years , From: 22.08.2022 To : 21.08.2027	Working

2)Proposed quarries:

Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period	Remarks
1	M/s. R R M Transport 1/303, Ariyalur Main Road, Kavulpalayam, Perambalur - 621220.	Kalpadi(N)	328/2 Block 36	1.00.0		Instant Proposal
2.	M/s.Kavery Stone Crusher 110/1B, Maruvathur Main Road, Perali Village, Kunnam Taluk, Perambalur - 621708	Kalpadi(N)	328/2 Block 31	1.10.0		Presently Proposed
3.	M/s. Perambalur Quality Minerals 238/1A3, Arumadal Road, Sengunam, Perambalur - 621220	Kalpadi(N)	328/2 Block 35	1.50.0		Presently Proposed
4.	M/s. GKP Transports 174C, 1st Main Road, New Colony, Thuraimangalam, Perambalur - 621220.	Kalpadi(N)	328/2 Block 37	1.00.0		Presently Proposed

5.	M/s. Sri Rajakaliamman Mines and Minerals 2/151, Kaliyamman Nagar, Kavulpalayam, Thurai mangalam, Perambalur - 621220.	Perambalur / Kalpadi (North)	328/2 (Block 34)	1.00.0		Presently Proposed
6.	M/s.C.Kamarajrajashree Mines and Minerals 262/1, Trichy Main Road, Thavuthaikulam, Ariyalur - 621705	Kalpadi(N)	328/2 Block 38	1.00.0		Presently Proposed

3) Expired quarries

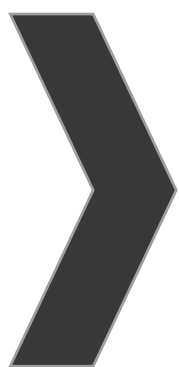
Sl. No	Name of the Owner	Taluk / Village	S.F.Nos.	Extent	Lease Period
1.	Thiru.D.Madhubalan, S/o.Duraisamy, No.2/29, Mariyamman Koil Street, Kai.Kalathur Post, Veppanthattai Taluk, Perambalur District-621117	Kalpadi (N) / Pblr	328/2 (Block-3)	1.00.0	5 years From 28.11.2018 to 27.11.2023

4) Abandoned quarries:

Sl. No	Name of the Owner	Taluk /Village	S.F.Nos.	Extent	Lease period
Nil					

[Signature]
Assistant Director,
Geology and Mining,
Perambalur.

20/12/22



ANNEXURE-5

பெரம்பலூர் டிரைவர்கள், பெரம்பலூர் உடகம்,

தலைவர் (உ) கிராமம் 400 ரூபாய் 328/2-ன் தீர்மானம்

தீர்மானம் தீர்மானம் - தீர்மானம். மேலும் 400

தீர்மானம், பெரம்பலூர் டிரைவர்கள் தீர்மானம் தீர்மானம் தீர்மானம்

தீர்மானம் தீர்மானம் ரூ. No. 104 / 400 / 2025 தீர்மானம் 06.06.25

தீர்மானம், தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்

தீர்மானம் M/s. RRM Transport தீர்மானம் தீர்மானம்-36

தீர்மானம் 1.00.00 தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்

தீர்மானம் தீர்மானம் தீர்மானம்

மேலும் தீர்மானம் - 36 தீர்மானம் தீர்மானம் தீர்மானம்.

தீர்மானம் 50 மீ தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்.

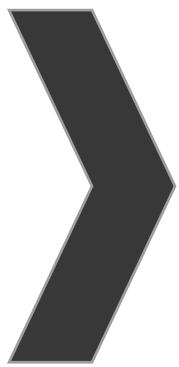
100 மீ தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்.

500 மீ தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்

தீர்மானம், தீர்மானம், தீர்மானம், தீர்மானம் தீர்மானம் தீர்மானம்

தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்

தீர்மானம் தீர்மானம் தீர்மானம்
25. தீர்மானம் (உடகம்),
பெரம்பலூர் வட்டம்.



ANNEXURE-6



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"

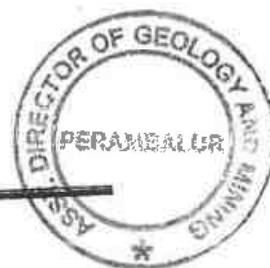
In exercise of the power conferred by Section 15 of Mines and Mineral (Development & Regulation) Act, 1957 and in accordance with the Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959 read with G.O. Ms. No.21, Natural Resources (MMC.1), 31st July 2024 as amended from time to time notified 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.

**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 and live 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	Aranarai(N)	120/2A1A (Part-1)	1.50.0	Unassessed waste land - Kundru	10
13	Perambalur	Aranarai(N)	120/2A1A (Part-2)	1.50.0	Unassessed waste land - Kundru	10
14	Perambalur	Aranarai(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

PERAMBALUR DISTRICT GAZETTE EXTRAORDINARY



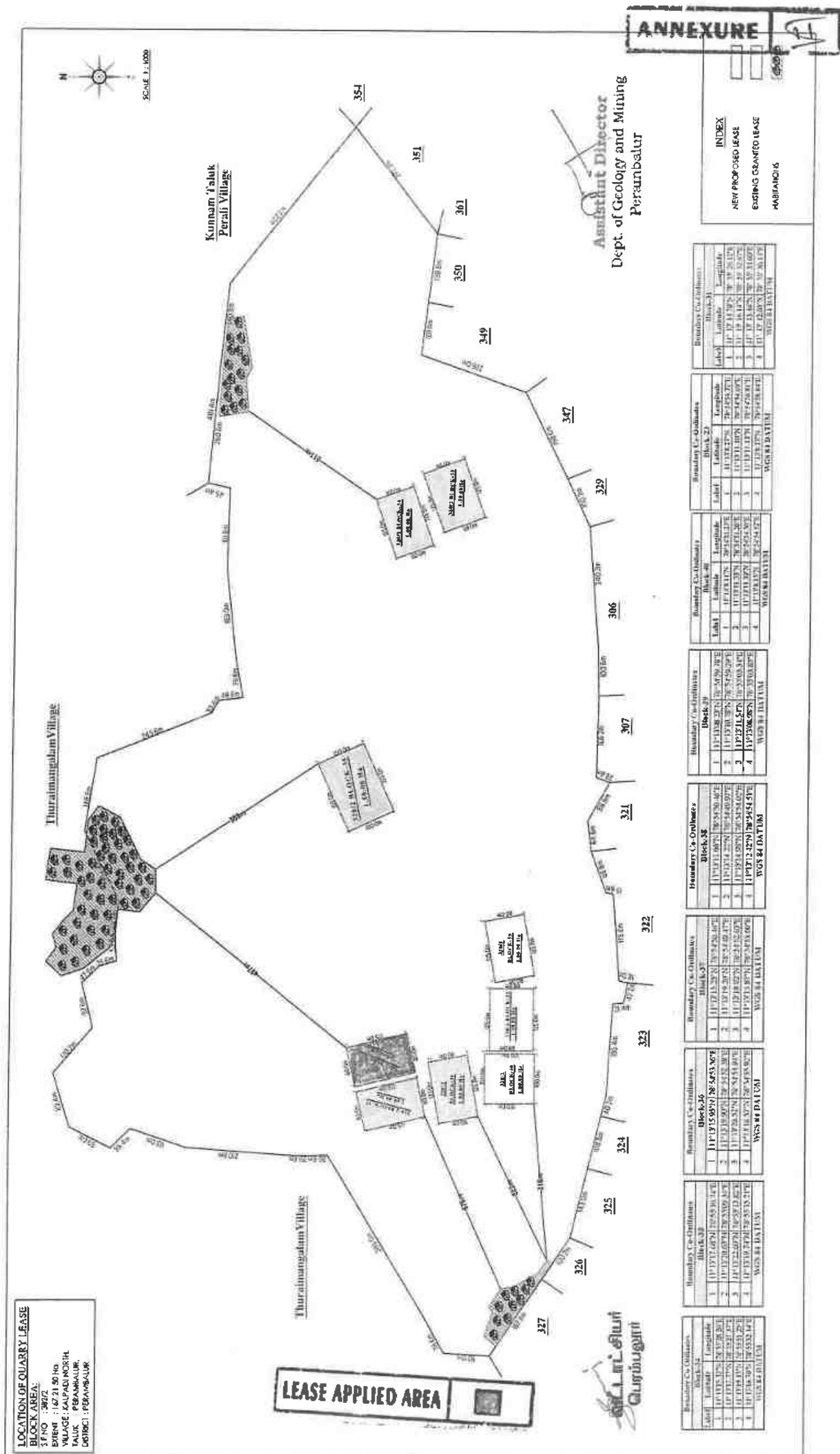
Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
17	Perambalur	Sengunam	52/1(Part-3)	1.50.0	Unassessed waste land - Malai	10
18	Alathur	Narana mangalam	300/1 Part	2.02.0	Unassessed waste land - Malai	5
19	Alathur	Narana mangalam	324/1 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



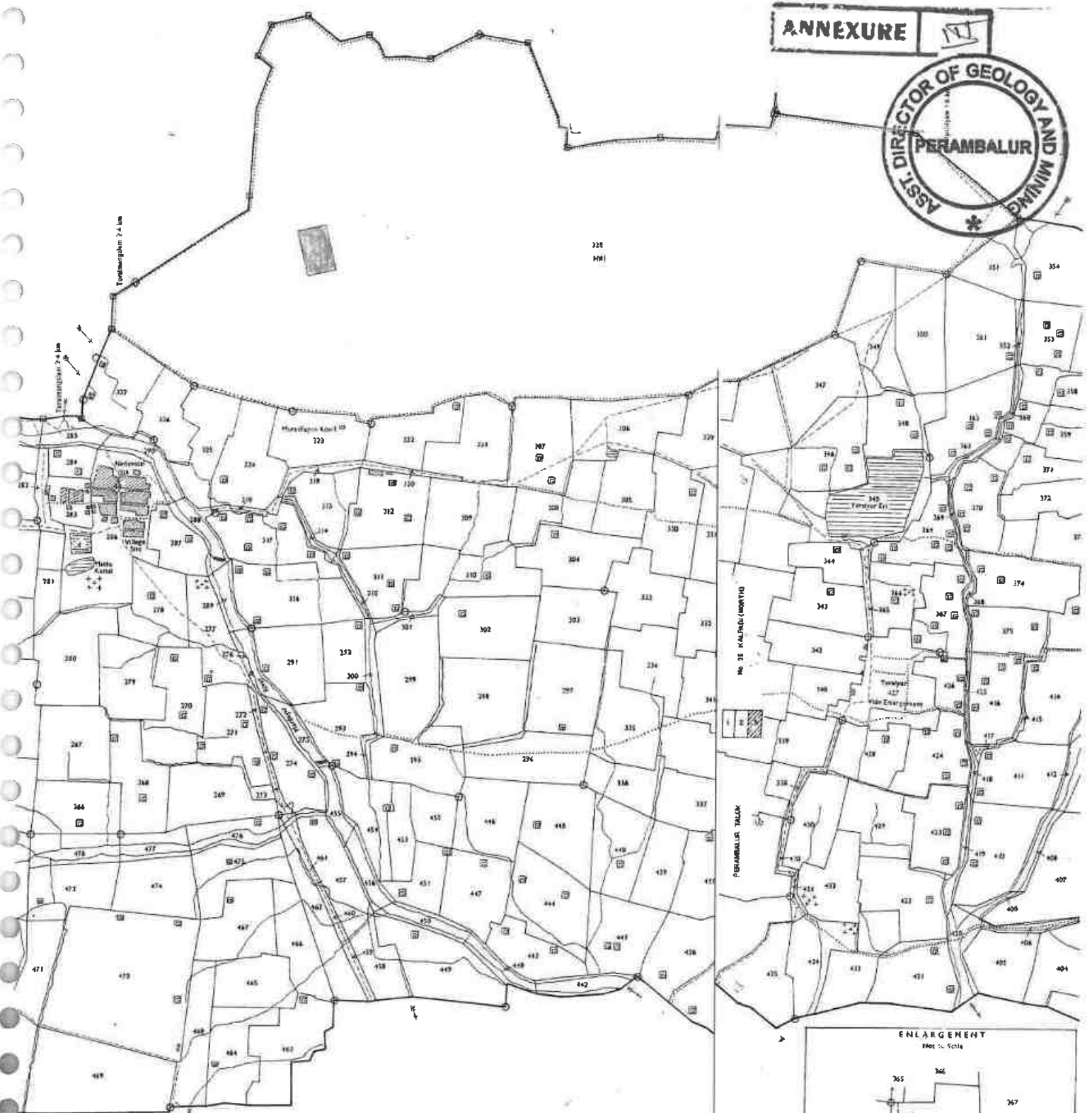
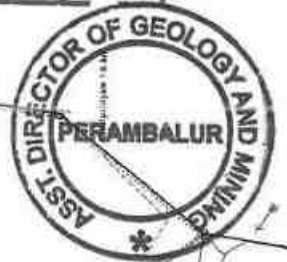
Sl. No.	Taluk	Name of the Village	SF.No	Extent in Ha	Land Classification	Period of Lease
(1)	(2)	(3)	(4)	(5)	(6)	(7)
38	Alathur	Padalur(E)	172 Block 2	1.50.0	Unassessed waste land - Kallankuthu	5
39	Alathur	Padalur(E)	172 Block 3	1.50.0	Unassessed waste land - Kallankuthu	5
40	Veppanthattai	Vengalam(E)	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.

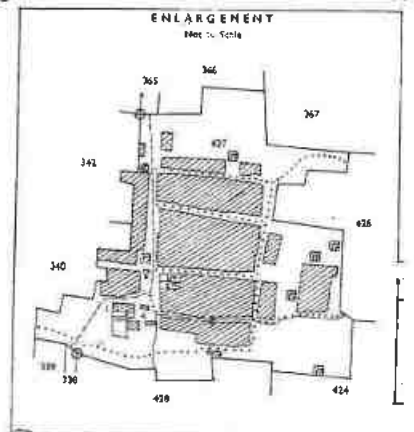
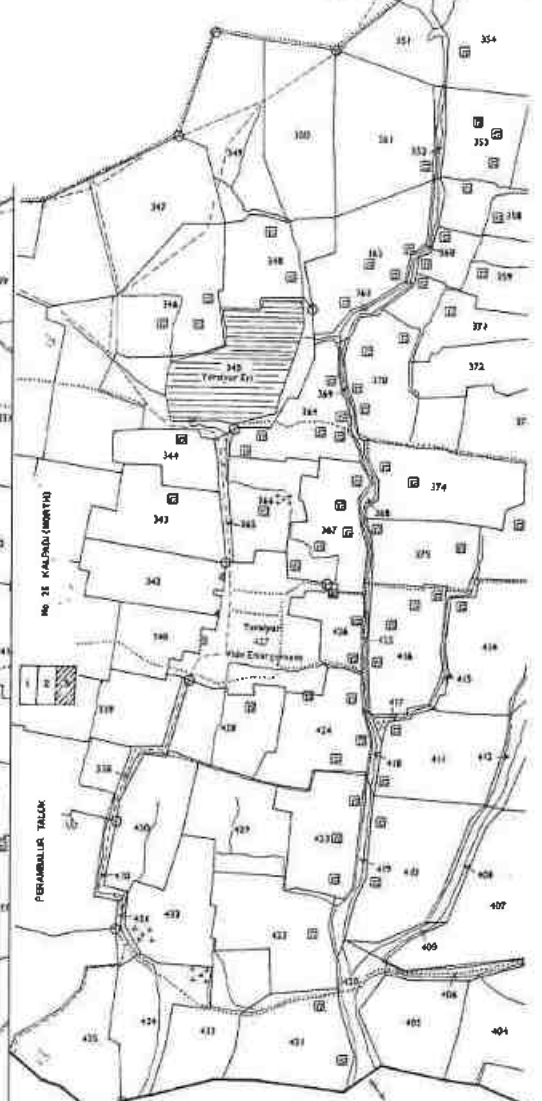


ANNEXURE



Survey Map.	Name of details
19 a	Sapachikudi Kudi
21 a	Chettimani Kudi
21 & 27	Vediyar Kudi
61	Vediyar Kudi
81 & 200 a	Sheet Kudi
81 b	Marudam Kudi
204 b	Pillayar Kudi
— c	Annam Kudi
— d	Nallandam Kudi

LEASE APPLIED AREA



2A

வருவாய் துறை

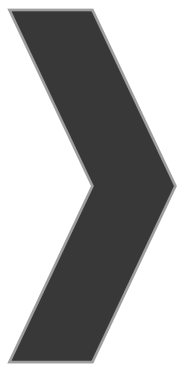


District : Perambalur

Taluk : Perambalur

Village : **Kalpadi (N)**

[illegible]



ANNEXURE-7



Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045
Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/4046	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4046	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	µg/m ³	71.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	33.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045
Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/4047	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4047	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	µg/m ³	57.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: technical@shrientanalytical.com

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- (2)



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Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/4048	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4048	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	µg/m ³	74.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	35.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4049	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

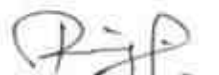
Sample Location	A2-Thoramangalam village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4049	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	µg/m ³	54.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4050	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4050	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	µg/m ³	51.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4051	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4051	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	µg/m ³	62.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4052	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

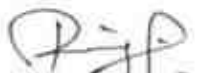
Sample Location	A3-Near Perali village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4052	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	µg/m ³	52.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4053	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4053	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	µg/m ³	58.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R



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TEST REPORT

Report No.	SARL/25/4055	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4055	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	µg/m ³	50.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4057	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4057	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	µg/m ³	49.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4058	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4058	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	µg/m ³	53.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4074	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4074	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	µg/m ³	44.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4075	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4075	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	µg/m ³	56.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4077	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4077	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	µg/m ³	47.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4078	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4078	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	µg/m ³	51.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4080	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4080	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	µg/m ³	48.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4081	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4081	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	µg/m ³	59.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4082	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4082	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	µg/m ³	53.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4083	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4083	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	µg/m ³	56.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4084	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4084	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	µg/m ³	69.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	32.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4085	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4085	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	µg/m ³	60.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4086	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4086	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	µg/m ³	56.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4087	Report Date.	24.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

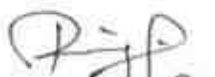
Sample Location	A2-Thoramangalam village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4087	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	µg/m ³	56.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4102	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4102	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	µg/m ³	63.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4103	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4103	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	µg/m ³	61.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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- (2)

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TEST REPORT

Report No.	SARL/25/4104	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4104	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	µg/m ³	68.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	32.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4105	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4105	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	µg/m ³	58.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4106	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4106	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	µg/m ³	50.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4107	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

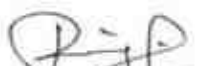
Sample Location	A4-Kavulpalayam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4107	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	µg/m ³	52.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4108	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4108	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	µg/m ³	49.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4109	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4109	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	µg/m ³	55.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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- (2)



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TEST REPORT

Report No.	SARL/25/4110	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4110	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	µg/m ³	51.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4111	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4111	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	µg/m ³	53.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

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TEST REPORT

Report No.	SARL/25/4113	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4113	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	µg/m ³	45.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4114	Report Date.	31.03.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4114	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	µg/m ³	49.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4130	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4130	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	µg/m ³	43.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4131	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4131	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	µg/m ³	48.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4133	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

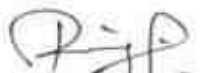
Sample Location	A5-Kalpadi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4133	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	µg/m ³	46.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/4134	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4134	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	µg/m ³	52.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4136	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4136	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	µg/m ³	52.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4137	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4137	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	µg/m ³	51.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4138	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4138	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	µg/m ³	49.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4139	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4139	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	µg/m ³	54.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4140	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4140	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	µg/m ³	77.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	36.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4141	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4141	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	µg/m ³	53.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4142	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4142	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	µg/m ³	73.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	34.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4143	Report Date.	07.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4143	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	µg/m ³	50.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4158	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4158	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	µg/m ³	59.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

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TEST REPORT

Report No.	SARL/25/4159	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4159	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	µg/m ³	61.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4160	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4160	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	µg/m ³	64.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4161	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

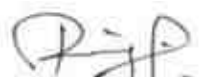
Sample Location	A2-Thoramangalam village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4161	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	µg/m ³	58.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4162	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4162	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	µg/m ³	52.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4163	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

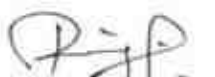
Sample Location	A4-Kavulpalayam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4163	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	µg/m ³	60.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4164	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4164	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	µg/m ³	49.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4165	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4165	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	µg/m ³	53.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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- (2)



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TEST REPORT

Report No.	SARL/25/4166	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4166	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	µg/m ³	45.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4167	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4167	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	µg/m ³	47.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4169	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4169	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	µg/m ³	51.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4170	Report Date.	14.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4170	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	µg/m ³	50.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4186	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4186	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	µg/m ³	44.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4187	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4187	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	µg/m ³	53.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/4189	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4189	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	µg/m ³	47.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4190	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4190	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	µg/m ³	49.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/4192	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

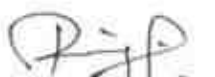
Sample Location	A3-Near Perali village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4192	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	µg/m ³	48.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/4193	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4193	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	µg/m ³	59.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
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TEST REPORT

Report No.	SARL/25/4194	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4194	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	µg/m ³	51.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4195	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4195	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	µg/m ³	56.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4196	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4196	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	µg/m ³	57.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4197	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4197	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	µg/m ³	49.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/4198	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4198	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	µg/m ³	64.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4199	Report Date.	21.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4199	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	µg/m ³	53.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/4214	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4214	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	µg/m ³	70.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	33.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4215	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4215	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	µg/m ³	56.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4216	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4216	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	µg/m ³	75.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	35.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4217	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

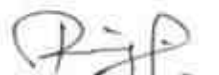
Sample Location	A2-Thoramangalam village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4217	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	µg/m ³	60.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4218	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4218	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	µg/m ³	53.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4219	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kurumbapalayam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4219	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	µg/m ³	50.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4220	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Thaneuer
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4220	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	µg/m ³	50.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4221	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kurumbapalayam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4221	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	µg/m ³	54.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4222	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4222	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	µg/m ³	52.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4223	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4223	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	µg/m ³	47.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4225	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4225	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	µg/m ³	49.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4226	Report Date.	28.04.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4226	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	µg/m ³	49.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4242	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4242	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	µg/m ³	51.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4243	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4243	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	µg/m ³	51.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/4245	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

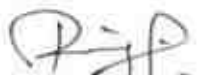
Sample Location	A5-Kalpadi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4245	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	µg/m ³	48.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/4246	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4246	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	µg/m ³	55.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4248	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4248	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	µg/m ³	58.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4249	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4249	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	µg/m ³	60.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4250	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Thaneuer
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4250	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	µg/m ³	56.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4251	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4251	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	µg/m ³	57.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4252	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

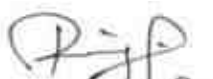
Sample Location	A1-MINE LEASE AREA
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4252	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	µg/m ³	61.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4253	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4253	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	µg/m ³	52.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

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TEST REPORT

Report No.	SARL/25/4254	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4254	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	µg/m ³	66.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4255	Report Date.	05.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4255	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	µg/m ³	50.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4270	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4270	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	µg/m ³	72.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	34.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4271	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4271	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	µg/m ³	51.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4272	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4272	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	µg/m ³	78.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	37.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4273	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4273	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	µg/m ³	55.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4274	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4274	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	µg/m ³	51.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4275	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

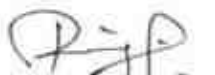
Sample Location	A4-Kavulpalayam Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4275	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	µg/m ³	61.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4276	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4276	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	µg/m ³	53.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4277	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4277	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	µg/m ³	58.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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
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TEST REPORT

Report No.	SARL/25/4278	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4278	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	µg/m ³	54.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4279	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4279	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	µg/m ³	58.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4281	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4281	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	µg/m ³	50.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4282	Report Date.	12.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4282	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	µg/m ³	48.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4298	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

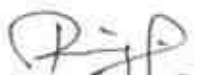
Sample Location	A5-Kalpadi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4298	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	µg/m ³	45.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4299	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4299	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	µg/m ³	60.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4301	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4301	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	µg/m ³	48.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4302	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4302	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	µg/m ³	56.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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Please Contact:

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TEST REPORT

Report No.	SARL/25/4304	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4304	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	µg/m ³	50.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4305	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4305	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	µg/m ³	52.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4306	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

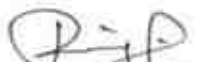
Sample Location	A3-Near Perali village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4306	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	µg/m ³	54.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4307	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4307	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	µg/m ³	53.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/4308	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4308	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	µg/m ³	73.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	35.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4309	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4309	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	µg/m ³	59.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4310	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

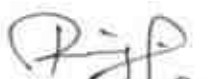
Sample Location	A1-MINE LEASE AREA
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4310	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	µg/m ³	62.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4311	Report Date.	19.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4311	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	µg/m ³	55.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4326	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4326	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	µg/m ³	65.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4327	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4327	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	µg/m ³	62.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

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TEST REPORT

Report No.	SARL/25/4328	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4328	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	µg/m ³	60.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4329	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4329	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	µg/m ³	59.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4330	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4330	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	µg/m ³	59.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4331	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4331	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	µg/m ³	51.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4332	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

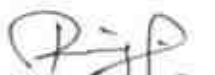
Sample Location	A3-Near Perali village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4332	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	µg/m ³	55.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4333	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4333	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	µg/m ³	55.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4334	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4334	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	µg/m ³	49.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4335	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4335	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	µg/m ³	52.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4337	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4337	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	µg/m ³	46.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4338	Report Date.	26.05.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

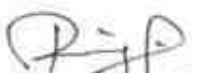
Sample Location	A6-Neduvasal village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4338	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	µg/m ³	57.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4354	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Kalpadi 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-4354	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	µg/m ³	52.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4355	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4355	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	µg/m ³	57.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4357	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

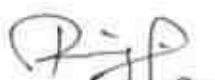
Sample Location	A5-Kalpadi Village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4357	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	µg/m ³	50.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/4358	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6-Neduvasal 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-4358	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	µg/m ³	59.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4360	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

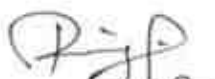
Sample Location	A3-Near Perali village
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-4360	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	µg/m ³	57.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4361	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4361	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	µg/m ³	60.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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

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/25/4362	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Near Perali 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-4362	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	µg/m ³	54.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4363	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Kavulpalayam 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-4363	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	µg/m ³	57.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4364	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4364	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	µg/m ³	79.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	37.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4365	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4365	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	µg/m ³	57.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4366	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1-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-4366	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	µg/m ³	76.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	36.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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/25/4367	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Thoramangalam 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-4367	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	µg/m ³	54.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/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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LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/4368	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	GW 1 -Mine Lease Area

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4368	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 24 th Edition 2130 B: 2023	NTU	<1	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.84	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	529.5	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	318	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	176	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	42.4	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	16.8	100
S9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	106	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	70.0	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	154	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	70.5	1000



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TEST REPORT

Report No.	SARL/25/4368

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 (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	52.5	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.06	0.3
16	Nitrate (as NO ₃)	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	0.16	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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TEST REPORT

Report No.	SARL/25/4369	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	GW 2 -Thoramangalam village

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4369	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 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.76	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1672	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1005	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	360	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	64.8	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	162	-
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	326	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/25/4369

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	278	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	2.87	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


Verified



END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

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LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/4370	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	GW 3 –Near perali village

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4370	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 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.35	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1954	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1180	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	84.0	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	382	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	397	1000



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TEST REPORT

Report No.	SARL/25/4370

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	348	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.09	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	5.24	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.59	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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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4371	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	GW 4 - Kavulpalayam Village

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4371	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 24 th Edition 2130 B: 2023	NTU	<1	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.94	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	2078	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1250	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	425	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	41.0	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	254	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	171	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	384	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	408	1000



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TEST REPORT

Report No.	SARL/25/4371

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 (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	360	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.15	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	5.65	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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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4372	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	GW 5- Kalpadi Village

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4372	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 24 th Edition 2130 B: 2023	NTU	<1	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.68	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1286	-
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	236	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	62.4	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	19.2	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	156	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	80.0	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	259	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	272	1000



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TEST REPORT

Report No.	SARL/25/4372

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 (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	212	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.07	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	4.79	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.44	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/25/4373	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	GW 6- Neduvasal village

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4373	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 24 th Edition 2130 B: 2023	NTU	<1	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.95	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	2025	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1220	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	390	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	86	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	42.0	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	215	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	175	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	354	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	370	1000



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TEST REPORT

Report No.	SARL/25/4373

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 (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	345	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.06	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	6.33	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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END OF THE REPORT


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TEST REPORT

Report No.	SARL/25/4374	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	SW 1-AVVAYAIR POND

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4374	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 24 th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.98
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	632.5
B.	Chemical parameters			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	380
6	Total hardness (as CaCO ₃)	APHA 24th Edition 2340 C: 2023	mg/L	182
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	45.2
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	16.6
9	Calcium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Ca B: 2023	mg/L	113
10	Magnesium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Mg B: 2023	mg/L	69.0
11	Total alkalinity (as CaCO ₃)	APHA 24th Edition 2320 B: 2023	mg/L	160
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	138



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TEST REPORT

Report No.	SARL/25/4374

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	54.6
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.11
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL(DL-1.0)
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.24
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(DL-4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27°C	IS 3025 (Part 44): 1993	mg/L	BDL(DL-2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	12
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

Verified



END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4375	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	WATER
Sample Mark	SW2-THURAIMANGALAM LAKE

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-4375	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 24 th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.58
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	890.5
B.	Chemical parameters			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	536
6	Total hardness (as CaCO ₃)	APHA 24th Edition 2340 C: 2023	mg/L	210
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	34.6
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	29.6
9	Calcium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Ca B: 2023	mg/L	87
10	Magnesium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Mg B: 2023	mg/L	124
11	Total alkalinity (as CaCO ₃)	APHA 24th Edition 2320 B: 2023	mg/L	178
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	186



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TEST REPORT

Report No.	SARL/25/4375

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	156
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	2.63
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL(DL-1.0)
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.24
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(DL-4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27°C	IS 3025 (Part 44): 1993	mg/L	BDL(DL-2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	8.0
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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END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4377	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	SOIL
Sample Mark	S1-Mine Lease Area

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-4377	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	-	7.28
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	172.5
3	Dry matter content	IS 15106: 2002	%	95.28
4	Water Content	IS 15106: 2002	%	4.72
5	Organic Matter	IS 2720: Part 22: 1972	%	0.69
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	256
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay loam
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	15.57
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.34
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	39.09
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL(D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.44
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	305
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	572
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	%	18.6
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	41

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/25/4378	Report Date.	02.06.2025

Customer Name & Address	PROPOSED ROUGH STONE QUARRY OF M/s.RRM TRANSPORT AT S.F.NO. 328/2 (BLOCK-36) OVER AN EXTENT OF 1.00.0 HA IN KALPADI (NORTH) VILLAGE, PERAMBALUR TALUK, PERAMBALUR DISTRICT.
Sample Description	SOIL
Sample Mark	S2-Thoramangalam village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-4378	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	-	8.05
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	274.6
3	Dry matter content	IS 15106: 2002	%	95.14
4	Water Content	IS 15106: 2002	%	4.86
5	Organic Matter	IS 2720: Part 22: 1972	%	0.94
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	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	10.65
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	44.32
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.0
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.62
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	325
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	660
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).

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4379	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	SOIL
Sample Mark	S3-Near perali village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-4379	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	-	7.59
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	190.5
3	Dry matter content	IS 15106: 2002	%	96.32
4	Water Content	IS 15106: 2002	%	3.68
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	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	8.59
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	42.76
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	48.65
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.31
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	346
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	732
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	%	18.20
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	40

BDL – Below Detectable limit (DL - Detectable limit).

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4380	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	SOIL
Sample Mark	S4-Kavulpalayam Village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-4380	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	-	7.28
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	245.6
3	Dry matter content	IS 15106: 2002	%	89.55
4	Water Content	IS 15106: 2002	%	10.45
5	Organic Matter	IS 2720: Part 22: 1972	%	1.32
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	208
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Clay
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	16.47
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	38.2
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.31
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.76
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	498
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	895
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	%	16.9
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	44

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/25/4381	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	SOIL
Sample Mark	S5-Kalpadi VillageSS

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-4381	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	-	7.36
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	172.3
3	Dry matter content	IS 15106: 2002	%	97.39
4	Water Content	IS 15106: 2002	%	2.61
5	Organic Matter	IS 2720: Part 22: 1972	%	0.75
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	244
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	12.55
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	42.56
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	44.89
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.44
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	530
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	970
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	%	18.5
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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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4382	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/S.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	SOIL
Sample Mark	S6-Neduvasal village

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-4382	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	-	7.59
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	284.5
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	%	0.82
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	306
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	10.98
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	46.52
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	42.5
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.67
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	422
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	638
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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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/4384	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone Quarry Of M/s.RRM TRANSPORT At S.F.No. 328/2 (Block-36) Over An Extent Of 1.00.0 Ha In Kalpadi (North) Village, Perambalur Taluk, Perambalur District.
Sample Description	NOISE LEVEL DATA

Customer Reference	As per work order	Sampling Method	SARL/IOP/023
Sample Reference No	SARL/NO/CHE-4384	Date of Monitoring	24.03.2025/ 25.03.2025
Sample Collected by	LABORATORY		

Time in hrs	N1	N2	N3	N4	N5	N6
06.00	40.3	38.0	40.9	41.8	39.4	48.5
07.00	41.8	39.4	38.6	44.4	41.9	50.8
08.00	43.6	42.5	41.9	42.8	42.5	49.3
09.00	47.0	44.5	43.3	46.4	46.3	49.1
10.00	48.9	46.9	50.3	48.5	44.1	48.1
11.00	50.6	48.8	49.4	51.3	43.5	47.3
12.00	51.5	53.2	46.1	52.5	42.3	45.1
13.00	53.3	54.6	47.0	48.8	46.8	47.4
14.00	54.6	52.3	52.6	46.4	44.0	53.0
15.00	52.0	53.5	52.4	44.3	47.4	46.8
16.00	57.5	50.4	51.0	48.4	45.3	48.8
17.00	55.6	49.6	52.4	47.4	44.3	48.1
18.00	50.4	50.4	49.1	45.5	47.5	49.5
19.00	49.2	44.3	45.5	46.1	46.6	51.2
20.00	48.4	40.4	44.9	43.5	39.5	45.8
21.00	45.3	39.4	43.0	41.8	38.4	46.2
22.00	42.4	38.8	44.5	42.4	37.3	50.2
23.00	38.9	38.5	42.6	40.8	35.6	39.2
24.00	37.8	38.1	40.4	39.9	37.1	39.3
01.00	37.0	37.1	41.9	41.3	35.8	37.6
02.00	38.2	36.8	40.9	40.5	34.6	38.2
03.00	36.1	37.3	39.9	40.6	37.0	36.9
04.00	39.0	37.0	39.1	39.2	37.8	38.1
05.00	40.2	38.4	38.5	38.8	39.2	37.6

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R



Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - info@shrientanalytical.com

www.shrientanalytical.com

TEST REPORT

Report No. SARL/25/4384

Report Date. 02.06.2025

	N1	N2	N3	N4	N5	N6
DAY EQUIVALENT	51.6	49.5	48.6	47.4	44.6	48.9
NIGHT EQUIVALENT	39.1	37.8	41.4	40.6	37.0	42.8
DAY & NIGHT EQUIVALENT	50.0	47.9	47.3	46.0	43.2	47.7

Remarks:

LOCATIONS:

- N1 Mine Lease Area
- N2 Thoramangalam village
- N3 Near perali village
- N4 Kavulpalayam Village
- N5 Kalpadi Village
- N6 Neduvasal village

For Shrient Analytical and Research Labs Pvt. Ltd


Verified



END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: technical@shrientanalytical.com

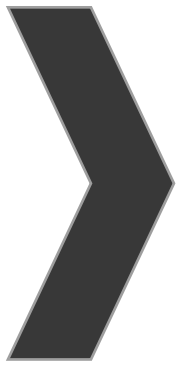
Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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ANNEXURE-8



National Accreditation Board for
Testing and Calibration Laboratories

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 this laboratory, you may also visit NABL website www.nabl-india.org)

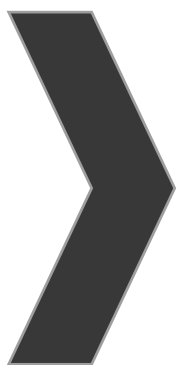
Name of Legal Entity: SHRIENT ANALYTICAL AND RESEARCH LABS PRIVATE LIMITED

Signed for and on behalf of NABL




Anuja Anand
Director


Chakravarthy T. Kannan
Chief Executive Officer



ANNEXURE-9

அனுப்புதல்

திரு சு.இரவிச்சந்திரன் எம்.எஸ்ஸி., எம்.எட்..

தலைமையாசிரியர்,

அரசு மேல்நிலைப் பள்ளி கவுள்பாளையம்,

பெரம்பலூர் மாவட்டம், 621220

பெறுதல்

M/S RRM TRANSPORTS BID ID

(1274420)

1/303 அரியலூர் மெயின் ரோடு,

கவுள்பாளையம்,

பெரம்பலூர் மாவட்டம், 621220

ந.க. எண். : 49 / 2025-26

நாள் : 07.08.2025

அய்யா/ அம்மா,

பொருள்: பெரம்பலூர் மாவட்டம் - கவுள்பாளையம் அரசு மேல்நிலைப்பள்ளி -
மாணவர்களுக்கு கழிவறை வசதி வழங்க கோருதல் - சார்பு

மேற்கண்ட பொருளுக்கிணங்க கவுள்பாளையம் அரசு மேல்நிலைப் பள்ளியில் 2025-2026 6 முதல் 12 ம் வகுப்பு வரை 300க்கும் மேற்பட்ட மாணவ, மாணவியர் கல்வி பயின்று வருகின்றனர். எனவே மாணவர்களுக்கு கழிவறை வசதி இல்லாத காரணத்தினால் திறந்தவெளி சிறுநீர் கழிப்பிடம் மற்றும் 6 அறைகள் கொண்ட கழிவறைகள் அதற்குரிய மின்சாரம் மற்றும் தண்ணீர் தொட்டி வசதி செய்து தருமாறு தங்களை அன்போடு கேட்டுக் கொள்கிறேன்.



7/8/2025
தலைமை ஆசிரியர்
அரசு மேல்நிலைப் பள்ளி
கவுள்பாளையம் - 621 220
பெரம்பலூர் மாவட்டம்