DRAFT EIA & EMP FOR

PROPOSED ROUGH STONE AND GRAVEL QUARRY

CATEGORY – B1

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

ToR Identification No. TO25B0108TN5538111N (F.No. 12578), dated 11/01/2026

PROPOSED QUARRY LEASE DETAILS	
SURVEY NOS	496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B
VILLAGE	PALLI
TALUK	CHEYYAR
DISTRICT	TIRUVANNAMALAI
EXTENT	3.52.0 ha
CLUSTER EXTENT	8.97.0 ha
PROPOSED PRODUCTION	7,42,225 m^3 of Rough Stone 57,976 m^3 of Gravel
LAND	PATTA LAND

(Sector No. 1(a) Sector No.1 as per NABET)
Category of the Project: B1 Cluster Mining, Total Cluster Area – 8.97.0 Ha
Baseline Monitoring Period – March 2025 to May 2025

APPLICANT

Tmt. T. POORNIMA,

W/o.TAMILOLI,

NO.1/62, NORTH STREET, PANRUTTI,

KANCHIPURAM DISTRICT – 631 604.

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/26-29/RA 0478, Valid Until - January 3, 2029 Contact: 97502 23535 & 94446 54520 Email: infoglobalmining@gmail.com, globalminingsolutionssalem@gmail.com	**M/s. SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE LIMITED** (NABL Accredited Testing Laboratory) Valid Until -29.09.2029 #416/15, Dhargas Road, Perungalathur, West Tambaram, Chennai, Tamil Nadu, India.

APRIL - 2026

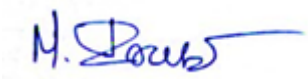
AMENDMENT PAGE

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

M/s. Global Mining Solutions, Salem is very much thankful to Tmt.T.Poornima, Lessee for the confidence and trust placed on the organization for carrying out Environmental Impact Assessment (EIA) study for the proposed Rough Stone and Gravel Quarry over a lease extent of 3.52.0 Ha., & Cluster extent of 8.97.0 Ha., located at S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai 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 EIA/EMP report. Our sincere thanks to the local people of Palli 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 MoEFCC OM No. J – 11013/41/2006-IA.II (I) dated 5th October 2011, we hereby give our undertaking for owning the content and information in the EIA/EMP report submitted for EC of the proposed Rough Stone and gravel quarry over a lease extent of 3.52.0 Ha., & Cluster extent of 8.97.0 Ha located at Palli Village, Cheyyar Taluk, Tiruvannamalai 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. TO25B0108TN5538111N (F.No. 12578), dated 11.01.2026 of EIA/EMP report for the proposed Rough Stone and Gravel Quarry over a lease extent of 3.52.0 Ha., & Cluster extent of 8.97.0 Ha., located at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State for the production of 7,42,225 m^3 of Rough Stone and 57,976 m^3 of Gravel formation from the proposed lease area and the details has been complied in the EIA/EMP report is factually correct.

The EIA/EMP report has been prepared by M/s. Global Mining Solutions (GMS), Salem. GMS is a NABET accredited consultant for preparation of EIA/EMP report of Mining of Minerals (Opencast & Under Ground Mining) vide certificate No. NABET/EIA/26-29/RA 0478 *Valid up to: 03.01.2029.*

For: M/s. Global Mining Solutions

M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

भारतीय गुणवत्ता परिषद्
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Certificate of Accreditation

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)

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

DECLARATION BY EXPERTS

Declaration by Experts contributing to the proposed Rough Stone and Gravel Quarry over a lease extent of 3.52.0 Ha. & Cluster extent of 8.97.0 Ha located at Palli Village, Cheyyar Taluk, Tiruvannamalai 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

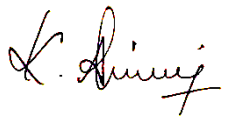
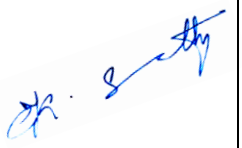
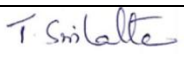
M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

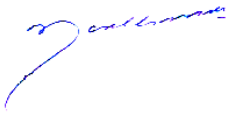
Signature & Date

Period of involvement: March 2025 to May 2025.

Contact information:

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

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

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

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COMPLIANCE TO TERMS OF REFERENCE

S.No	ToR Points	Reply	Pg. No
1.1	**SEAC Conditions - Site Specific**		
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 Organization chart of the Committee with defining the role of the members (iii) The 'Standard Operating Procedures' (SoP) executing the planned activities.	A cluster management committee including all the proponents of the rough stone quarrying projects within the cluster of 500 m radius will be constituted for the effective implementation of appropriate environmental management plan. Affidavit in this regard will be submitted during Final EIA Report.	-
2	The PP should submit an affidavit to follow the scientific formation of benches for 5m *5m properly during mining as per the approved mining plan.	Agreed, An affidavit for stipulated bench formation will be incorporated in the Final Report.	-
3	The PP shall install the CCTV camera for the continuous surveillance of mining activity & furnish the photographic/ videographic evidence along with the EIA report.	Agreed, The PP will install CCTV at the proposed mine lease area and submit proof in the Final EIA/EMP report.	-
2.1	**SEAC Standard Condition**		
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	The applied lease is fresh project.	-

	(iii) Balance Quantity as per Mineable Reserve calculated (iv) Mined out Depth as on date Vs EC Permitted depth (v) Details of illegal/illicit mining (vi) Violation in the quarry during the past working (vii) Quantity of material mined out outside the lining lease area (viii) Condition of Safety zone/benches (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6m height and ultimate depth of not exceeding 50m.		
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 VAO certificate 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 3.5 of Chapter 3. Structures details from 300 m to 500 m will be incorporated in the Final EIA / EMP Report.	Enclosed as Annexure 10.
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	Complied. The biodiversity report of the study area to be	121

	reputed institution and the same shall be included in the EIA report.	incorporated at the time of final EIA submission.	
6	The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries. Tiger reserve etc. upto a radius of 25 km from the proposed site.	The DFO letter stating that the proximity distance of RF & PF to be incorporated at the time of final EIA submission.	-
7	In case of proposed lease in an existing (or old) quarry where the benches are not formed(or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic institutions-CSIR Central Institute of Mining & Fuel Research/Dhanbad, NIRM/ Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Suratkal and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.	Not Applicable It is fresh quarry lease applied area. -	-
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.	The ultimate depth for this proposal (five years) is 52 m BGL. The slope stability study will be carried through reputed Institute once the depth reaches 25 m BGL.	-
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, ll/l Class mines manager appointed by the proponent	Affidavit will be incorporated in the Final EIA Report	-

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 2.9.2 of Chapter 2.	**-**
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	The applied lease is fresh project.	-
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 lease is fresh project.	-
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	The applied lease is fresh project.	-
15	All comer coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an	Project coordinates superimposed in satellite imagery and given as Figure No – 2.2 in Chapter – 3. The geology and geomorphology map are provided in Figure No.3.24, 3.25 Chapter 3.	62 144 & 145

	Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	The Soil map is provided under Figure No. 3.26, Chapter-3. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 & Figure 3.2 in Chapter – 3.	146 92 96
16	The PP shall carry out Drone video survey covering the cluster, green belt, fencing etc.,	It will be complied after commencement of the mining operation.	-
17	The proponent shall furnish photographs of adequate fencing, greenbelt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan	There are no trees within ML area. Fencing and plantations are under process. 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 0.78.5 Ha will be under greenbelt and plantation.	-
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 1758800 m^3 of Rough Stone and 70352 m^3 of Gravel. The mineable reserves of rough stone 7,42,225 m^3 of Rough Stone and 57976 m3 of Gravel. Justification and Methodology are detailed in Chapter 2.	74
19	The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR" 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.	Complied. Please refer Fig. 10.1	198

20	The Project Proponent shall conduct the Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD/TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitoring data, it may clearly be shown whether working all intersect ground water. Necessary data and documentation in this regard may be provided.	The hydrogeological study from a reputed institute is in progress and it will be incorporated in the final EIA report.	-
21	The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality& flora/fauna including traffic/vehicular movement study.	The baseline data for all environments is collected for the Summer season (March to May 2025).	95
22	The Proponent shall carry out the cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of air pollution, water pollution, & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.	Detailed cumulative impact study has been carried and the same is incorporated in the Chapter 4. Accordingly, a detailed Environment Management Plan is prepared considering air, water, noise and soil environment and the details are given in Chapter 10.	149 195
23	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	Rain water harvesting Plan is given in chapter 4.	-
24	Land use of the study area delineating forest area, agricultural land, grazing land. Wildlife sanctuary, national park, migratory routes of fauna, water	Satellite imagery has been used to study the lease area and the details of land use is given in Chapter 3.	99

	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.	Not applicable. There is no generation of the OB & waste.	-
26	Proximity to Areas declared as' Critically Polluted'(or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and famishedto 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 in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	The impact of the mining operations due to this quarry on water environment is studied and mitigation measures are proposed. Rain water harvesting plan is given Chapter 4.	-
28	Impact on local transport infrastructure due to the Project should be indicated	Since the production is very less, only few trucks of 10/20 Ts will be used for transport. The effect of transport on local transport will be negligible.	-
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	There are no trees within 300m buffer zone of the project area.	-

30	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific	Detailed mine closure plan is given in Chapter 7.	183
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 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.	Green belt is proposed in an area of 0.78.5 ha. Green belt development plan provided.	150
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	Accepted. The photographs showing green belt will be provided once it is completed.	-
34	A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	A disaster management plan is prepared and the details are given in Chapter 7.	187

35	A risk assessment and Management plan shall be prepared and included in the EIA/EMP report for the complete life of the proposed quarry or till the end of the lease period	Risk assessment and its management is given in Chapter 7.	183
36	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	Occupational Health Impacts of the project and preventive measures are detailed under Chapter 4.	173
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 1km from the lease area. Details of CER and CSR are discussed under Chapter No. 8	-
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 Chapter 3	136
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	192

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.	Not applicable. The applied lease area is fresh quarry.	-
42	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	The EMP is planned for the entire life of the mine. The affidavit for the same will be included in the Final EIA/EMP Report.	-
43	Concealing any factual information or submission of false/fabricated data and failure to comply with any of the condition mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.	Agreed	-
3.0 Seiaa Specific Conditions			
3.1	After detailed discussions, the Authority taking into account, the clarification furnished by the DD of G&M Department, accepts the recommendation of SEAC and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 7,42,225 m3 of Rough Stone & 57,976 m3 of Gravel upto the depth of 52m BGL with the annual peak production shall not exceed 1,52,490 m3 of Rough Stone & 34,176 m3 of Gravel 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 & normal conditions & the SEIAA Standard conditions.	Agreed	-
4.0 Cluster Management Committee			

1	Cluster management committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry.	There are three quarries (1 - Existing + 2 Proposed) within a 500-metre radius. The proponent will take the initiative to form a cluster management committee once environmental clearance is obtained for this quarry as well as the other proposed quarry.	-
2	The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,	Agreed. Will be complied.	-
3	The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.	Agreed. The list of members of the committee formed will be submitted to AD/mines after obtaining Environmental Clearance.	-
4	Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.	Agreed. Details of the Operation plan for cluster mining operations will be submitted once we get environmental clearance for all quarries proposed in the cluster area.	-
5	The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.	Risk management plan for the individual quarry is given in this report. As far as cluster working condition is concerned, once the committee is formed, risk management as a cluster including inundation of clusters and the evacuation plan will be elaborated and the same will be submitted to the EIA.	-
6	The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the Environmental policy devised shall be given in detail in the EIA Report.	Environmental policy for the cluster will be framed by the cluster management committee and the policy will be in accordance with EPA Act, 1986 and its amendments, guidelines by MoEFCC/SEIAA and other regulatory bodies. This policy will be displayed in the quarry.	-

7	The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.	Agreed. It will be complied as mentioned in the Point No.4	-
8	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity.	Agreed. It will be complied as mentioned in the Point No.4.	-
Agriculture & Agro-Biodiversity			
9	Impact on surrounding agricultural fields around the proposed mining Area.	There are no Agriculture, forest area and traditional practices within the project area. However, there are some agricultural land around the project site. It may be affected due to the quarry operation as such dust particles sedimentation in the agricultural land. It will be controlled at the source level by proper dust suppression as such wet drilling, controlled blasting and water sprinkling on the project roads and project surrounding roads. As per Air Quality Modelling, the impact of the air quality limited to 400m radius. So, there is no impact for the Agriculture, Forestry & Traditional practices located within 10km radius.	-
10	Impact on soil flora & vegetation around the project site.	The chemical and physical characteristics of the soil is given in Table 3.13 of Chapter 3. The anticipated impact and its mitigation measures for soil environment and biological environment are detailed in section 4.2.2 & 4.4.5 of Chapter 4 respectively.	121
11	Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.	There is no standing trees or vegetation within the mine lease area.	156

12	The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.	The ecological details have been provided in Section 3.7.7 under Chapter 3 and measures have been provided in Section 4.4.5 under Chapter 4.	121 & 149
13	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	All the essential environmental protective measures will be followed by the proponent to manage the surrounding environment and restore the ecosystem, as discussed in Chapter 4.	149
14	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	The impact of project on the land environment has been discussed in Section 4.2.1 under Chapter 4.	149
Forests			
15	The project proponent shall detailed study on impact of mining on Reserve Forests free ranging wildlife.	There are no R.F. within 10 km radius.	-
16	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	The impacts of the project on biological environment is given in section 4.4.5 under Chapter 4.	149
17	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.	There are no standing trees within lease area.	-
18	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.	There are no protected areas, National Parks, environmentally sensitive areas Corridors and Wildlife pathways near project site. Karikilli Birds Sanctuary – 28.7 km (SE)	-
Water Environment			
19	Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to	The hydrogeological study from a reputed institute is in progress and it will incorporated in the Final EIA report.	

	assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.		
20	Erosion Control measures.	There is no waste generation (OB) in this quarry has been envisaged. However, there may be erosion due to rainy season and that is limited within quarry area. The control measures are explained in Chapter 4.	
21	Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.	Complied. The study details are incorporated in Chapter 3. Anticipated impacts and its mitigation measures are detailed in Chapter 4.	
22	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	There is no wastewater generation from this Quarry, so this is not applicable.	-
23	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	Fragmentation impact on environment may be due to drilling and blasting. The anticipated impacts and mitigation measures are discussed in Chapter 4.	
24	The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.	The Flora and Fauna study covering 10 km radius are detailed in section 3.7.7 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.	211
25	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil	The impact of mining on soil environment has been	-

	physical, chemical components and microbial components.	discussed in Section 4.2.2 under Chapter 4.	
26	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The anticipated impact and its mitigation measures for Water Environment are detailed in section 4.2.3 of Chapter 4.	149
27	The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including Environmental stress. c) Sediment geochemistry in the surface streams.	The proposed quarry operation is Opencast Mechanized operation with drilling, blasting, excavation, loading and transportation. So, the effect of Hydrothermal/Geothermal is not envisaged. This is a simple mining operation, so bio-geochemical processes are not envisaged. Due to mining operation, there may be minimum impact to the nearby water bodies due to dust sedimentation. It will be controlled by wet drilling, water sprinkling and plantation.	-
Energy			
28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.	The measures taken to control noise, air, water, and dust have been given under Chapter 4.	149
Climate Change			
29	The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities.	The carbon emission and the measures to mitigate carbon emission have been discussed in Section 4.2.4 under Chapter. Only the best equipment will be used, and it will be properly and regularly maintained. Regular vehicular emission tests will be conducted on the transport vehicles to ensure minimal carbon emissions. To further reduce carbon emissions, a good greenbelt plan has been planned.	149
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 incorporated in the approved Mining Plan and the same is incorporated in the Chapter 7.	183
EMP			
33	Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued.	Complied. The details are described in Chapter 10.	195
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.	Complied. The details are described in Chapter 10.	195
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.	183
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.	183
Others			
37	The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies	There are no historical places, schools, cemeteries, temples, bird sanctuaries, and wildlife sanctuaries within 300 meters of the proposed project area. In this regard, the project proponent has received an	-

	such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.	official letter from the Village Administrative Officer, The letter copy enclosed as Annexure – 4.	
38	As per the MoEF& CC office memorandum F.N0.22-65/2017-1A.11I dated: 30.09.2020 and20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.	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.	Nil	-
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	This is a new project. No mining has been carried out in this lease area so far by the proponent.	-
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	Precise Area Communication letter received from the Deputy Director, Department of Geology and Mining, Tiruvannamalai. (Annexure-2)	-
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/ 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)	Project coordinates superimposed in satellite imagery and given as Figure No – 2.1 in Chapter – 2. The geology and geomorphology map are provided in Figure No.3.24, 3.25 Chapter 3. The Soil map is provided under Figure No. 3.26, Chapter-3. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 & Figure 3.2 in Chapter – 3.	61 144 & 145 146 92 96
1.5	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics	The following map in 1:50,000 Scale: Geology map of the project area covering 10km radius – Figure No. 3.24. Geomorphology Map of the Study Area covering 10 km radius – Figure No. 3.25. Drainage map – 3.23	144 & 145 142
1.6	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority	a.)Precise Area Communication: The Project Proponent has obtained Precise area communication letter received from the Deputy Director, Department of Geology and Mining, Tiruvannamalai, vide Rc.No.165/Kanimam/2025, dated 08.07.2025. The letter copy enclosed as Annexure – 2. b.)Mining Plan approval: The project proponent has prepared a Mining Plan under rule 19 (1), 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Deputy Director, Department of Geology and Mining, Tiruvannamalai vide Rc.No.165 / Kanimam /2025, Dated: 18.07.2025. The approval letter along with approved plan is enclosed as Annexure – 2.	-
1.7	It should be clearly stated whether the proponent Company has a well laid down Environment Policy	Environmental policy for the cluster will be framed by the cluster management committee	-

	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 noncompliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large,may also be detailed in the EIA Report.	and the policy will be in accordance with EPA Act, 1986 and its amendments, guidelines by MoEFCC/SEIAA and other regulatory bodies. This policy will be displayed in the quarry.	
1.8	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided	Risks are identified and the management is given in Chapter 7.	183
1.9	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.	Noted & Agreed The study area considered for this study is 10 km radius and all data contained in the EIA report such as waste generation etc., is for the Life of the Mine / lease period.	-
1.10	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of	The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.3.7 of Chapter-3. The land use pattern at present and at the end of the quarrying period has been provided in Table 2.13, Chapter-2. The Conceptual plan of mine lease area is shown in Figure No- 2.11.	127 81 & 82

	land use should be given		
1.11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given	The entire material quarried out will be sold. No waste generation from this quarrying operation.	-
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be 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	There is no Forest Land involved in the proposed project area. The proposed project area is a patta land. 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. The proposed project area does not involve any Forest Land.	-
1.14	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated	Not Applicable. The project doesn't attract Recognition of Forest Rights Act, 2006.	-
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given	Nil within 10 km radius	-

1.16	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted	The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc.	-
1.17	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlifeand copy furnished.	Not Applicable. There are No National Parks, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves within 10 km Radius from the periphery of the project area.	-
1.18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost	Flora and fauna composition in the core and buffer zone of the project has been studied through primary field surveys. The details are furnished in Chapter 3.	121

1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered	Not Applicable	-
1.20	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)	Not Applicable	-
1.21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report	Not applicable. No habitation within 300 meter of the radius.	

1.22	One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Sitespecific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.	Baseline data for meteorology, ambient air quality, Water quality, noise level, soil and flora & fauna are collected during Pre-Monsoon season (March 2025 to May 2025) and detailed in Chapter-3.	103
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 Chapter 4	162
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 entire water requirement for the project is 5.0 KLD which will be sourced from outside agencies. Negligible sewage of 1.5 KLD will be generated, for which a septic tank with soak pit will be set up. The water balance diagram is shown in Chapter 2.	83

1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided	Not Applicable. The required water will be outsourced from the nearby village.	-
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	Details of water conservation plan are given chapter 4.	149
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	The surface water condition and ground water condition in the study area is given in Chapter 3.	110
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	The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 52m bgl and water table is found at a depth of 72 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	Not applicable. There is no stream, seasonal or otherwise, passing through the lease area.	-
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	Site Elevation above MSL: 118 m from MSL Ultimate Depth: 52 m bgl Ground water: 72 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 compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given.The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution	In the lease area, safety barrier 7.5 m & 10 m left as safety zone. Greenbelt/Plantation will be carried out in and around the lease area to enhance the vegetative growth and aesthetic in the area.	-
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	This is a small quarry and the production is very less. 5 Nos. of 10/20 Ts tippers will be used for transport. The trips will be minimum. Hence no major impact on transport is expected.	-
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report	Onsite shelter and facilities will be provided to mine workers	-
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	The post mining land use/conceptual land use of the study area is given in 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 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 and safety study is given in Para 10.1.5 of Chapter-10.	199
1.36	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations	No major impact on public health will be there since the villages are located more than 1km from the lease area.	-
1.37	Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation	This project provides employment to 33 people directly & indirectly. Local people will be hired for unskilled labour. Through CSR, nearby schools, villages will be benefitted. For CER, INR 5,00000 is allocated. Based on the demand of the people during public hearing, further funds will be allocated, if necessary.	-
1.38	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project	Environmental Management plan details are given in Chapter 10.	195
1.39	Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project	During public hearing process, the opinions and demands of the people will be noted. The replies and commitment made by the proponent along with time bound action plan wherever applicable will be provided in Final EIA/EMP report.	-

1.40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given	There is no litigation pending against the project.	-
1.41	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out	**Project Cost** is Rs. 135.70 Lakhs (including EMP & CER cost) **CER Cost** is Rs.5.0/- lakhs **EMP Cost is –** 24.58 Lakhs Capital Cost is Rs. 10.05 /- Lakhs Recurring Cost is Rs. 14.53/- Lakhs for five years.	52 & 200
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report	The disaster and its management plan is given in Chapter-7.	187
1.43	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc	This project will contribute financially through payment of taxes like royalty, GST, etc. The project will also contribute via CSR. The demands of people during public hearing will also be considered by the project proponent. This project provides employment to 33 people directly. Local people will be hired for unskilled labour. Through CSR, nearby schools, hospitals will be benefitted. For CSR, INR 5.0 Lakhs has been allocated.	-
1.44	Besides the above, the below mentioned general points are also to be followed:- a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) Project Proponent shall enclose all the analysis/testing reports	Yes, Complied.	

	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. a. The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area, b. eological maps and sections and c. sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area		

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE REPORT

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

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

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

Tmt.T.Poornima proposes to operate Rough Stone and Gravel Quarry over an extent of 3.52.0 Ha of fresh patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State and ToR obtained vide Identification No. TO25B0108TN5538111N, Dated: 11.01.2026.

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

Table 1.1 – Details of Quarries within 500m Radius

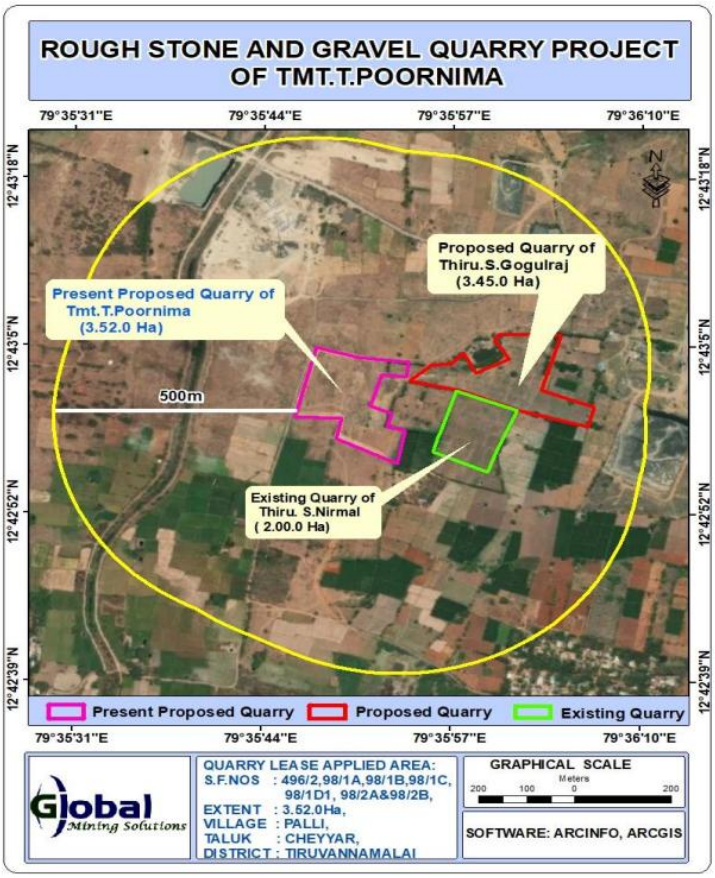
S.No	Name of the Quarry Owner	S.F. Nos & Village	Lease Period	Area in Ha
a. Abandoned Quarry				
1.	R. Velmurugan	Palli 79/2 (Part)Etc.	19.05.2012 to 18.05.2017	0.80.0
2.	R. Venkatachalam	Palli 66/3A (1.03.0) & 66/3B (1.87.0)	21.07.2016 to 20.07.2021	2.90.0
3.	R. Velmurugan	Palli 80/2(0.02.5), 81/1 (0.31.0), 81/2A(0.17.5), 81/28 (0.48.0), 84/1 (0.21.0)	17.09.2018 to 16.09.2023	1.20.0
4.	M. Marimuthu	Palli 74/3,74/4	16.11.2018 to 15.11.2023	0.98.5
5.	R. Velmurugan	Palli 79/2,80/1881/1	09.11.2006 to 08.11.2011	0.80.0
6.	R. Velmurugan	80/2, 81/1, 2A, 2B, 84/1	17.09.2023 to 16.09.2024 1.20	1.20.0
b. Existing Quarry				
1.	S. Nirmal	Palli 115/1,2,3,4 & 116 (Part)	29.08.2023 to 28.08.2028 (File No. 9954, EC granted date 11.07.2023)	2.000
c. Proposed Quarry				
1.	Tmt. T. Poornima, W/o.Tamiloli, 1/62 South Street, Panrutti, Kanchipuram	Palli 496/2 & etc.	Proposed	3.52.0
2.	Thiru.S. Gokulraj S/o. Saravanaraj No. 14, Kamaraj Nagar,	Palli, 95/1, 95/10, 95/2, 95/3, 95/4,	Proposed	3.45.00

	Pammal Post, Kanchipuram	95/5, 95/6, 95/7, 95/8 & 95/9		
Total Area of Cluster				**8.97.0 Ha**

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

As per MoEFCC OM: F.No.L-11011/175/2018-IA-II(M), dated 12.12.2018, the EIA/EMP report has to be prepared for the cluster area based on ToR recommended by SEIAA. Therefore, the applicant applied for ToR through Parivesh website vide online proposal No. SIA/TN/MIN/547653/2025 Dated 10/08/2025. The ToR proposal was placed in 615th SEAC meeting held on 09.09.2025 and 893rd SEIAA meeting held on 24.09.2025 & 940th SEIAA meeting held on 02.01.2026. Then ToR has been issued by the SEIAA vide ToR Identification No. TO25B0108TN5538111N, Dated: 11.01.2026 to prepare the draft EIA report as per the recommended ToR for conducting Public hearing and obtaining Environmental Clearance from the SEIAA.

Figure.1.1 Satellite Image showing cluster quarries



1.2 IDENTIFICATION OF PROJECT AND PROJECT PROPONENT

1.2.1 IDENTIFICATION OF PROJECT

Table -1.2 Project Identification

Name of the Project	Rough Stone Quarry & Gravel of Tmt.T.Poornima
S.F No.	496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B
Location of the Project	Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Extent	3.52.0 Ha
Type of Land	PATTA LAND

1.2.2 IDENTIFICATION OF PROJECT PROPONENT

Table -1.3- Details of Project Proponent

Name of the Project Proponent	Tmt.T.Poornima
Communication address	No.1/62, North Street, Panrutti, Kanchipuram District – 631 604
e-mail Address	mptgroup524@gmail.com
Mobile No.	9360176009

1.3 BRIEF DESCRIPTION OF THE PROJECT

1.3.1 NATURE AND SIZE OF THE PROJECT

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

Table – 1.4 Brief Descriptions of the Project

Name of the Quarry	Rough Stone Quarry & Gravel of Tmt.T.Poornima
Toposheet No	57 P/10
Corner Coordinates	Latitude : 12°42'55.87"N to 12°43'04.85"N Longitude : 79°35'46.33"E to 79°35'54.15"E
The altitude of the area	118m (MSL)
Proposed Depth of Mining	52 m BGL
Geological Resources	17,58,800 m^3 of Rough Stone

	70,352 m^3 of Gravel	
Mineable Reserves	7,42,225 m^3 of Rough Stone 57,976 m^3 of Gravel	
Proposed Production (5 Years)	7,42,225 m^3 of Rough Stone 57,976 m^3 of Gravel	
Ultimate pit Dimension	196 m (L) X 138 m (W) X 52 m (D), Depth - 52 m bgl	
Water Level in the area	72 m BGL	
Method of Mining	Opencast method of mechanized Mining with a bench height of 5m and bench width of 5m proposed.	
Topography	➢ The area applied for quarry lease is exhibits almost plain topography covered by Gravel formation. The massive Charnockite formation is noticed below 2m (avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 118m (maximum) from MSL. ➢ No major river is found nearby the lease applied area. ➢ Water table is found at a depth of 72m in summer and 69m in rainy seasons. ➢ Temperature of the area is reported to be 18^0C to a maximum of 42^0C during summer. ➢ Rainfall of this area is about 800mm to 900 mm during the both NE & SW monsoons.	
Machinery Proposed	Jack Hammer	5 Nos
	Compressor	2 Nos
	Excavator with bucket and rock breaker	2 Nos
	Tipper (10/20 Ts)	5 Nos
Environmental Setting within 500m Radius	**Water bodies:** Kulam – 50 m safety distance maintained. Kulam – 120 m (E) Odai – 220 m (W) Tank – 440 m (S), 635m(NE), 699m(NW), 880m (SW), 1.27Km (SE), 1.8Km (N) Cheyyar river – 6.0Km (S) **Reserve Forests:**	

	Nil within 10Km radius Enadavadi R.F -11.53KM(w) **Nearest Sanctuary:** Nil within 10km Radius Karikilli birds Sanctuary – 28.7 km (SW)
Details of Habitation	The nearest habitations -Palli village – 497 m (SE)
Proposed Manpower Development	33 Nos
Water Requirement	Total – 5 KLD (Domestic: 1.5 KLD, Dust Suppression: 2.0 KLD. Green Belt: 1.5 KLD)
Greenbelt Development	The safety zone of 0.78.5 Ha will be developed with about 785 Nos. of plantation.
Fuel Requirement	6,03,443 (L) (Entire Project Life)
Project Cost	Rs.135.70 Lakhs (Including operational + Fixed Asset + EMP cost + CER cost).
EMP Cost	Total EMP Cost for 5 years is 24.58 lakhs (This amount will be subjected to change after public hearing) i.e., Rs.10.05 Lakhs of Capital Cost + Rs.14.53 Lakhs of Recurring Cost (For 5 Years)
CER Cost	Rs. 5 Lakhs
Applicability of CRZ Clearance	Not Applicable

1.3.2 NATURE OF THE PROJECT

Sector	1(a) Non-Coal Mining
Type	Fresh Project
Category	B1 (Cluster Situation)
Mineral	Minor mineral of Rough Stone

1.3.3 LOCATION OF PROJECT

The proposed Quarry lease area is situated at S. F. Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B over an extent of 3.52.0 Ha., in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State. The area lies in the **Latitude:** 12°42'55.87"N to 12°43'04.85"N, **Longitude:** 79°35'46.33"E to

79°35'54.15"E. Location of the proposed project is shown in Figure 2.1 and the satellite imagery of the project site is shown in Fig 2.2.

1.4 IMPORTANCE OF THE PROJECT TO THE REGION

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

1.5 REGULATORY COMPLIANCES

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

- Environment protection Act, 1986
- EIA Notification, 2006 & Subsequent amendments
- Water Pollution (Prevention & Control) Act, 1974
- Air Pollution (Prevention & Control) Act, 1981
- Noise Pollution (Regulation 7 Control) Rules, 2000
- Mines Act,1952
- Tamil Nadu Minor Mineral Concession Rules, 1959
- Mines and Minerals (development and regulation) Act,1957
- Minor Minerals Conservation and Development Amendment Rules 2018
- State Minor Mineral Concession Rules (GMMCR), 2017
- Explosive Act ,1884
- Explosive Rules,2008
- Hazardous and other Wastes (management and Transboundary Movement) Rules, 2016
- Batteries (Management and Handling) Rules 2010
- Solid Waste Management Rule 2016

1.5.1PRESENT LEGAL STATUS

Table 1.5 – Present Legal Status

Description	Issuing Authority	Status	Letter number	Date	Reference
Precise Area Communication	Deputy Director, Department of Geology and Mining, Tiruvannamalai	Received	Rc.No.165/Kanimam/2025	08.07.2025	Annexure -2
Mine Plan Approval Letter	Deputy Director, Department of Geology and Mining, Tiruvannamalai	Approved	Rc.No.165/Kanimam/2025	18.07.2025	Annexure-3
500m radius Cluster Letter	Deputy Director, Department of Geology and Mining, Tiruvannamalai	Obtained	Rc.No.165/Kanimam/2025	18.07.2025	Annexure-4
VAO NOC for features within300m radius	VAO, Palli	obtained	-	24.07.2025	Annexure-5

1.5.2 SCREENING

As per the Environmental Impact Assessment (EIA) Notification dated 14th September 2006 and its subsequent amendments the proposed quarry mining project falls under 'Category B1(Cluster Situation)', which requires Environmental Clearance from the State Environmental Impact Assessment Authority (SEIAA). The project proponent has appointed M/s. Global Mining Solutions, Salem, who are accredited by the National Accreditation Board for Education and Training (NABET), Quality Council of India (QCI), New Delhi, under the registration number NABET/EIA/26-29/RA 0478. Their role is to carry out an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) study in compliance with the Ministry of Environment, Forest and Climate Change (MoEFCC) requirements.

1.5.3 SCOPING

The proposal was placed in the 615th meeting of SEAC on 09.09.2025. Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Terms of Reference (ToR) to SEIAA and SEIAA recommended ToR in its 940th meeting dated 02.01.2026.

1.5.4 SCOPE OF THE STUDY

In line with the prescribed Terms of Reference (TOR), the area comprising 10 km radius around the proposed mine lease boundary is considered as the study area. The EIA/EMP report has been prepared following the generic structure specified in the EIA Notification 2006. The detailed studies have been conducted as per prescribed Standard TOR issued by SEIAA, Tamil Nadu vide ToR Identification No. TO25B0108TN5538111N, dated:11.01.2026. The point wise compliance for the ToR has been incorporated in this EIA/EMP report.

The main scope of the EIA study is to quantify the cumulative impact in the study area due to cluster quarries and formulate the effective mitigation measures for this applied project area. A detailed account of the emission sources, emissions control

equipment, background Air quality levels, Meteorological measurements, Dispersion model and all other aspects of pollution like effluent discharge, Dust generation etc., have been discussed in this report. The baseline monitoring study has been carried out during the Period of March 2025 – May 2025 for various environmental components so as to assess the anticipated impacts due the cluster quarry projects on the environment and suggest suitable mitigation measures for likely adverse impacts due to this proposed project.

The scope of study broadly covered as below,

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

1.6 NEED AND JUSTIFICATION OF THE PROJECT

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

1.7 STRUCTURE OF THE REPORT

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

1. Introduction

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

2. Project Description

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

3. Description of the Environment

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

4. Anticipated Environmental Impacts & Mitigation Measures

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

5. Analysis of Alternatives (Site and Technology)

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

6. Environmental Monitoring Program

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

7. Additional Studies

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

8. Project Benefits

This chapter discuss to improvements in the Physical and Social Infrastructure and presents the benefits from this project.

9. Environmental Cost Benefit Analysis

This Chapter involves identifying, quantifying, and, where possible, assigning monetary values to the positive and negative environmental impacts of a project.

10. Environmental Management Plan

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

11. Summary and Conclusion

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

12. Disclosure of Consultant

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

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CHAPTER 2

PROJECT DESCRIPTION

2.1 TYPE OF THE PROJECT

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

This project proposed to produce 7,42,225 m3 of Rough Stone and 57,976 m3 of Gravel for the period of 5 years with ultimate depth up to 52 m BGL.

2.2 NEED FOR THE PROJECT

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

2.3 LOCATION OF THE PROJECT

This is a Rough Stone and Gravel Quarry located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State. The area lies in the north latitude of 12°42'55.87"N to 12°43'04.85"N and eastern longitude of 79°35'46.33"E to 79°35'54.15"E and toposheet number 57 P/10. Location of the proposed project is shown in Figure 2.1 the satellite imagery of the project site is shown in Figure 2.2.

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

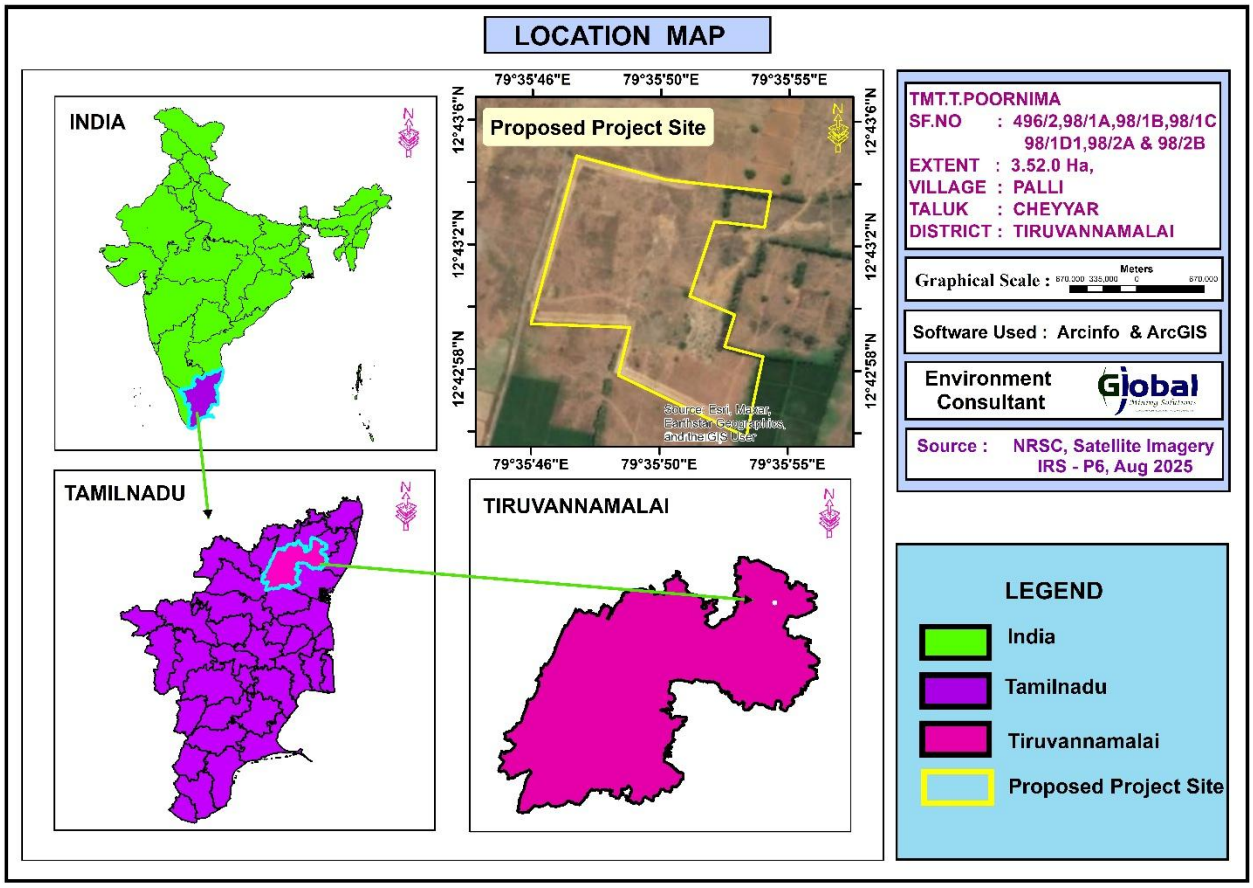


Figure 2.1 Location Map

Table 2.1 Boundary Coordinates of the Project Site

Corners	Co- ordinates	
	Latitude	Longitude
1	12° 42' 59.46"N	79° 35' 46.33"E
2	12° 43' 04.85"N	79° 35' 47.79"E
3	12° 43' 04.11"N	79° 35' 50.70"E
4	12° 43' 03.73"N	79° 35' 54.15"E
5	12° 43' 02.59"N	79° 35' 53.96"E
6	12° 43' 02.73"N	79° 35' 52.76"E
7	12° 43' 02.76"N	79° 35' 52.31"E
8	12° 43' 00.37"N	79° 35' 51.52"E
9	12° 42' 59.78"N	79° 35' 52.99"E
10	12° 42' 58.75"N	79° 35' 52.67"E
11	12° 42' 58.44"N	79° 35' 53.93"E
12	12° 42' 55.87"N	79° 35' 53.39"E

13	12° 42' 57.82"N	79° 35' 49.20"E
14	12° 42' 59.36"N	79° 35' 49.56"E

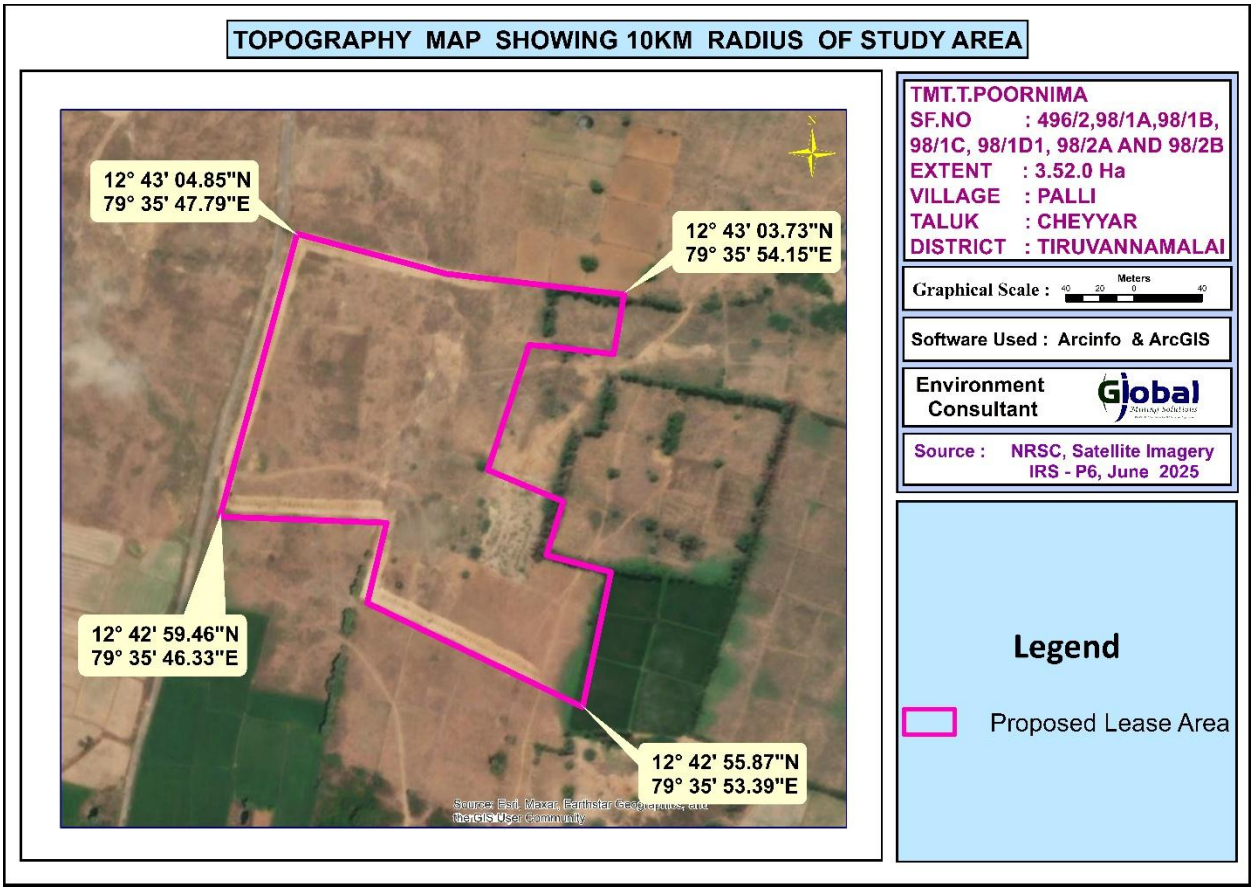


Figure 2.2 Google Image of the project site with Boundary Coordinates

Table 2.2 Mine Lease Area and its Ownership

Location	S.F. No	Area in Ha	Patta No.	Patta Name
Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu	496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B	3.52.0	-	It is a Patta Land, registered in the name of Applicant vide patta No. 2504.
Total		**3.52.0**		

Table 2.3 Site Connectivity

Nearest Roadway	This ML area is accessible from Vadapoondipattu to Somavaram village road on Northern side of the area • (NH-132B) Kanchipuram– Chengalpattu is located 17.0km (NE) • (SH-116) Kanchipuram – Vandavasi is located at 7.5Km (E) • Cheyyar – Kanchipuram road – 930 m (SE)
Nearest Village	Palli – 490m - SE
Nearest Railway	Kanchipuram 18.41 km – NE
Nearest Airport	Chennai International Airport 67.96 km - NE

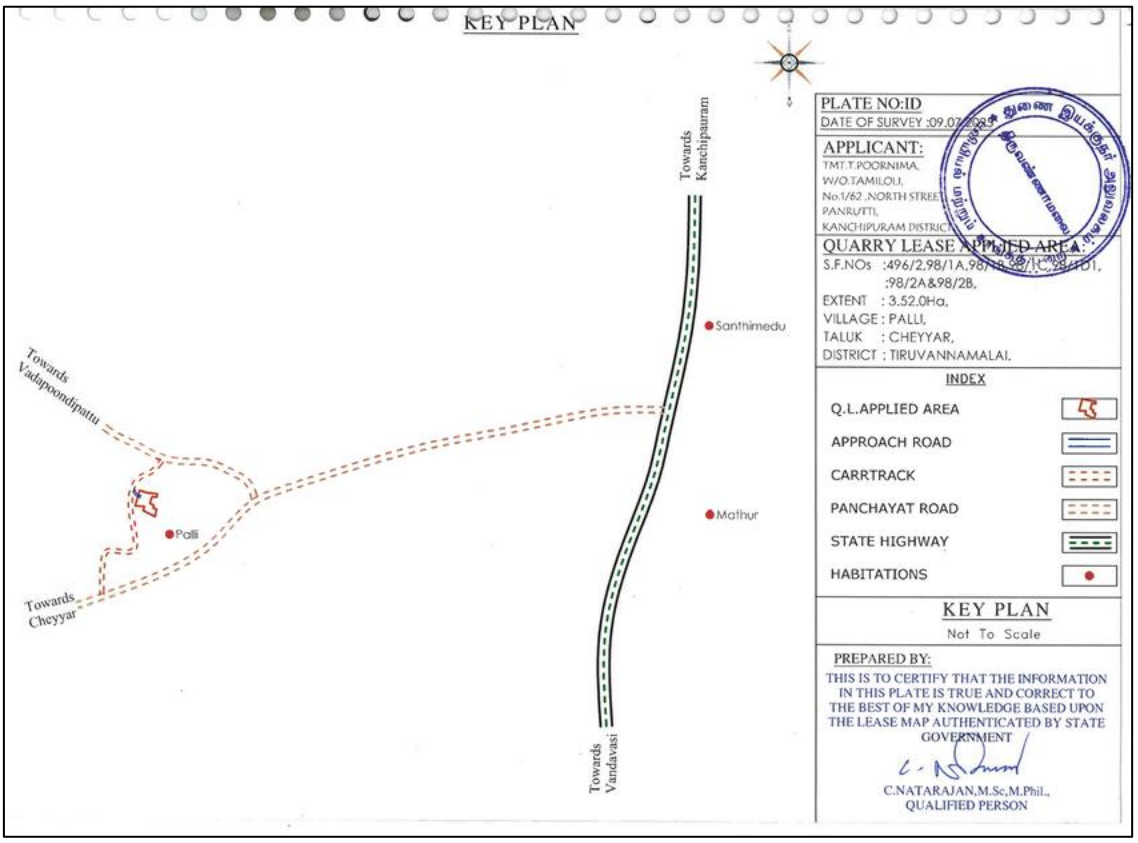


Figure 2.3 Site Connectivity Map

Table 2.4 Salient features of the Project

S. No.	Particulars	Details
1.	Proponent Name	Tmt.T.Poornima
2.	Proposed project	Rough Stone and Gravel Quarry of Tmt.T.Poornima
3.	Extent	3.52.0 Ha and the cluster area within 500 m radius including the proposed mine is 8.97.0 Ha > 5 Ha
4.	Location	S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu
5.	Co-ordinates of the project site	Latitude : 12°42'55.87"N to 12°43'04.85"N Longitude : 79°35'46.33"E to 79°35'54.15"E
6.	Topography	Plain
7.	Site Elevation above MSL	118 m from MSL
8.	Topo Sheet No.	57 P/10
9.	Minerals of Mine	Rough Stone and Gravel
10.	Proposed production in m3	7,42,225 m3 of Rough Stone and 57,976 m3 of Gravel up to the depth of 52m BGL for the period of 5 years
11.	Ultimate Depth of mining	52m (BGL)
12.	Method of Mining	Opencast method of mechanized mining with 5.0m height 5m width of the bench.
13.	Drilling/Blasting	Drilling and controlled Blasting is proposed
14.	No. of Working days	300 Days
15.	Water requirement & Source	5.0 KLD and will be sourced from local vendors
16.	Manpower	33 Nos.
17.	Project Cost	Rs. 135.70 lakhs

18.	Mining Plan Approval	Deputy Director, Department of Geology and Mining, Thiruvanamalai vide Rc.No.165/Kanimam/2025, Dated: 18.07.2025
19.	Safety Zone	0.78.5 Ha will be maintained as safety zone and tree saplings will be planted in this area
20.	Ground water level	70m in summer and 67m in rainy seasons
21.	Distance of Stone Crusher	500 m - NW
22.	Previous History & CCR	This is a Fresh Lease. Hence CCR is not applicable

Table 2.5 Environmental Settings of the project site

S. No.	Particulars	Details
1.	Nearest Highway	• (NH-132B) Kanchipuram– Chengalpattu is located 17.0km (NE) • (SH-116) Kanchipuram – Vandavasi is located at 7.5Km (E)
2.	Interstate Boundary	Not Applicable
3.	Nearest Railway Station	Kanchipuram 18.41 km – NE
4.	Nearest Airport	Chennai International Airport 67.96 km - NE
5.	Nearest Village	Palli – 490m - SE
6.	Water bodies	Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (SW)
7.	Reserved Forest	Nil within 10Km radius Enadavadi R.F – 11.53KM(w)
8.	Eco Sensitive Zone and Wildlife	Nil within 10km Radius Karikilli birds Sanctuary – 28.7 km (SW)

	Sanctuary (Notified)	
9.	Archaeological important places	Nil within 10 km radius
10.	Defense Installations	Nil within 10 km radius
11.	Nearest Port	Nil within 10 km radius
12.	Seismic Zone	Nil within 10 km radius

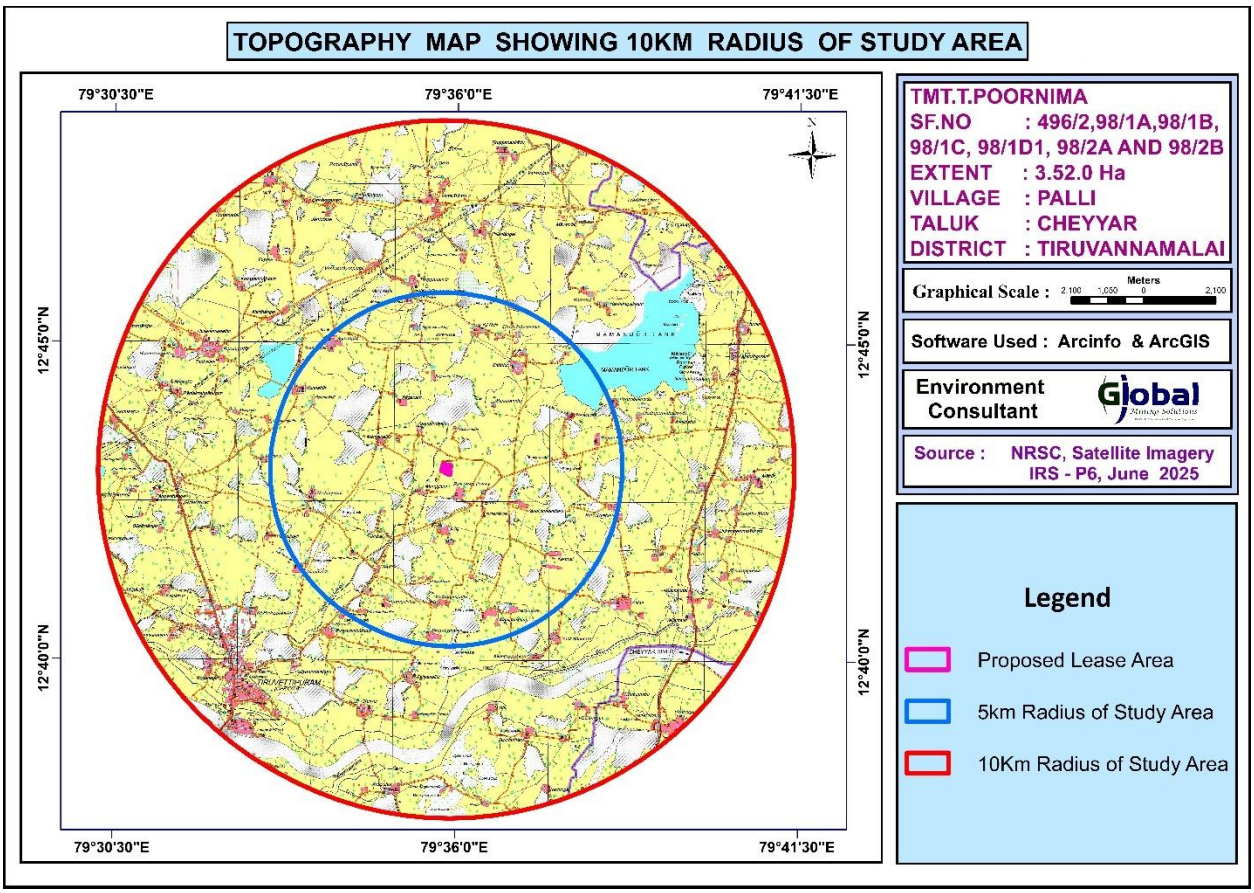


Figure 2.4 10km Radius TOPO Map

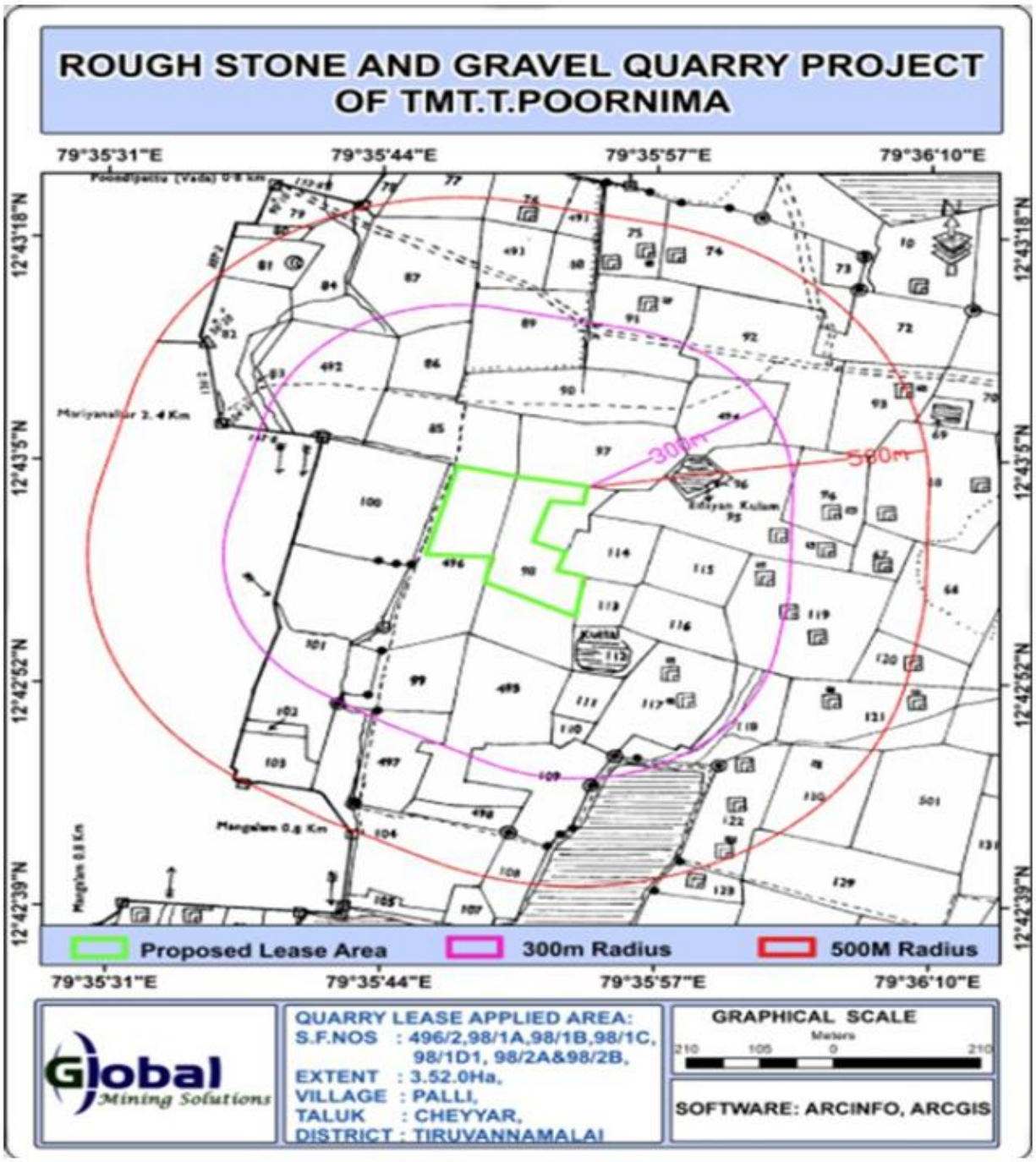


Figure 2.5 Lease Plan

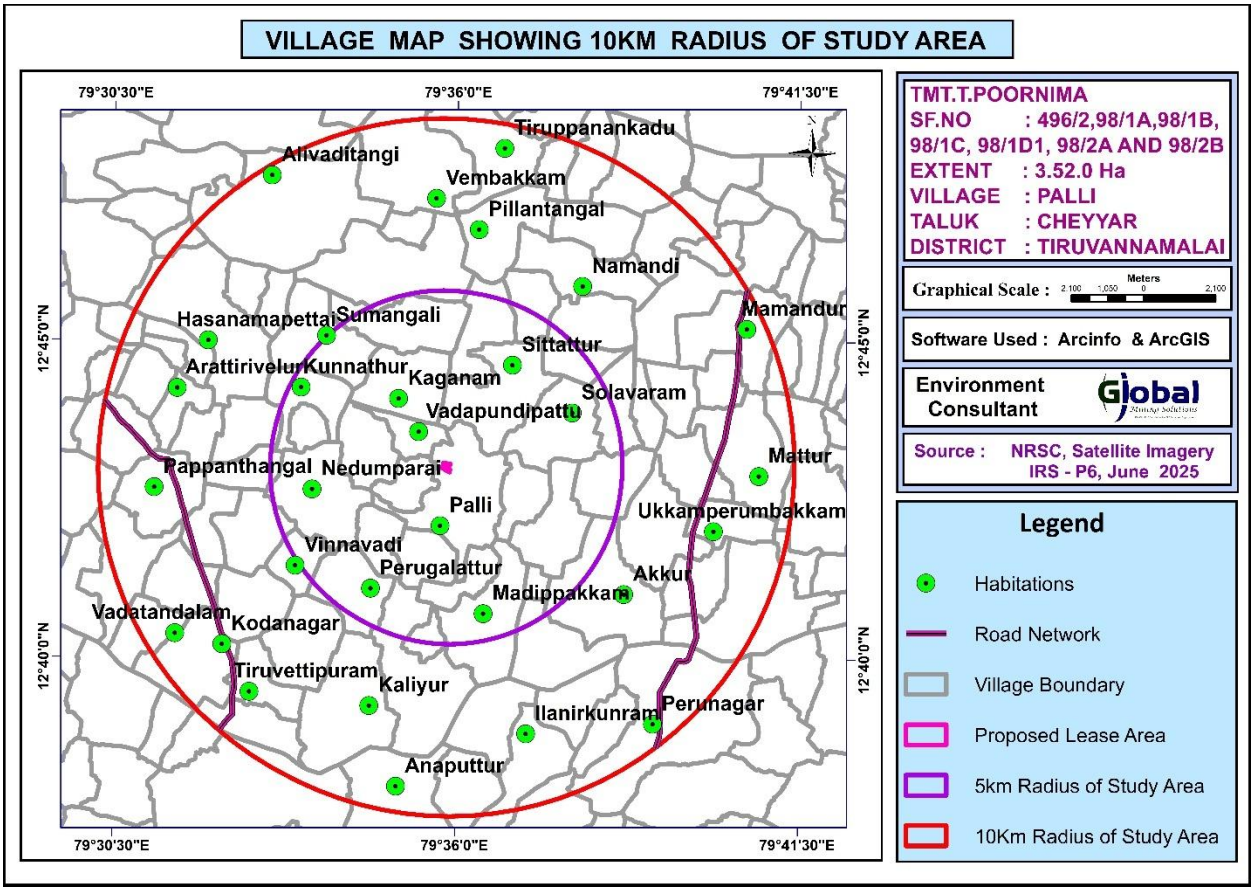


Figure 2.6 Village Map



Figure 2.7 Site Photographs

2.4 LAND USE PATTERN OF THE PROJECT AREA

The entire project site Patta Land and registered in the name of applicant vide patta No. 2504. The land use pattern of the mine lease area as of today and conceptual stage given in Table No. 2.6.

Table 2.6 Land use pattern of the Project area

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying Pit	Nil	2.70.5
Infrastructure	Nil	0.01.00
Roads	Nil	0.02.00
Safety Zone / Green Belt	Nil	0.78.5
Unutilized	3.52.0	Nil
Total	**3.52.0**	**3.52.0**

2.5 SIZE AND MAGNITUDE OF THE OPERATION

The proposed activity is the extraction of Rough Stone and gravel by open cast mechanized mining method over an extent of 3.52.00 Ha and to produce 7,42,225 m^3 of Rough Stone and 57,976 m^3 of Gravel for the period of 5 years with ultimate depth up to 52 m BGL. The details of geological and mineable reserves in the lease area have been provided below in the subsequent sub section.

2.6 TOPOGRAPHY AND DRAINAGE

The area applied for quarry lease is exhibits almost plain topography covered by Gravel formation. The massive Charnockite formation is noticed below 2m (avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 118m (maximum) from MSL. No major river is found nearby the lease applied area.

2.7 GEOLOGY

2.7.1 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 $N45^0E$ – $S45^0W$ with dipping towards $SE80^0$.

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

AGE		ROCK TYPE
Recent	-	Gravelly soil
	Unconformity	
Archaean	-	Dolerite dyke
		Charnockite.
		Peninsular
		Gneissic complex
		And Calc Gneiss

2.7.2 REGIONAL GEOLOGY

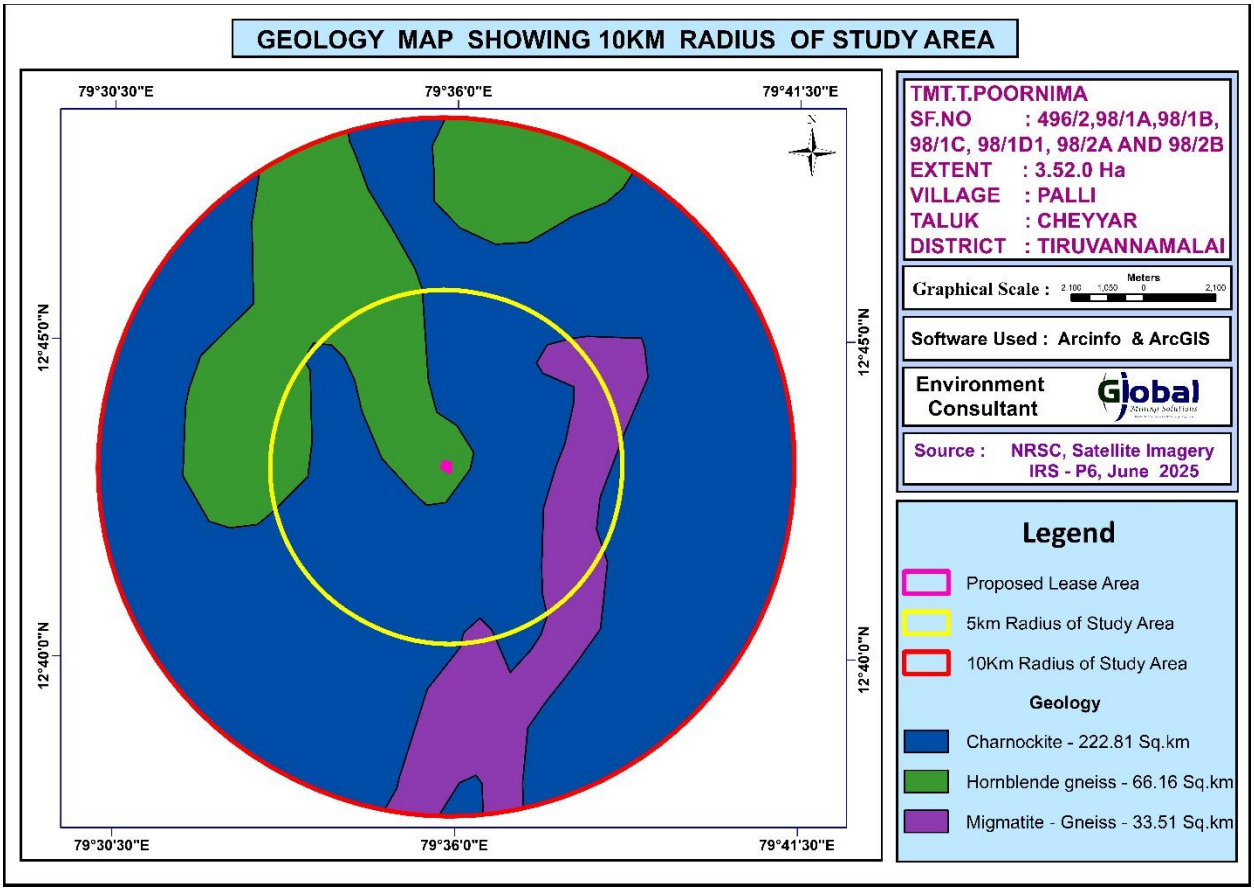


Figure 2.8 Geology Map – 10km Radius from the Project Site

Tiruvannamalai District mainly comprises of rocks of Archaeon age. The type of rocks found in the district are Charnockite, Granitic gneiss, Epidote Hornblende Gneiss, Amphibolite, Pyroxenite, Dunite, Migmatites, Banded Magnetite Quartzite, Shale and Clay. Dolerite dykes (Black Granite) are also noticed cutting across the country rocks.

The hard rock terrain comprises predominantly of Charnockite and Khondalite groups and their migmatitic derivatives, supra-crustal sequences of Sathyamangalam and Kolar groups and Peninsular Gneissic Complex (Bhavani Group), intruded by ultramafic-mafic complexes, basic dykes, granites and syenites. The sedimentary rocks of the coastal belt include fluviatile, fluvio-marine and marine sequences, such as Gondwana Supergroup (Carboniferous to Permian and Upper Jurassic to Lower

Cretaceous), marine sediments of Cauvery basin (Lower Cretaceous to Paleogene), Cuddalore /Pannambarai Formation (Mio Pliocene) and sediments of Quaternary and Recent age.

The Charnockite Group comprises pyroxene granulite and charnockite. The pyroxene granulite is dark grey, medium grained granulitic rock with typical salt and pepper texture, seen on the weathered surface. It consists of diopside, hypersthene, plagioclase, hornblende, biotite and quartz. Charnockite is the predominant rock in the area. It is grey, medium to coarse grained, greasy looking with foliation seen prominently on the weathered surface. It is essentially made of smoky or grey quartz, pale grey microcline and hypersthene as major minerals with plagioclase, hornblende and biotite as accessories.

Migmatite Complex is represented by hornblende-biotite gneiss, granitic gneiss and pink migmatite. This Complex is a group of banded felsic rocks of varying mineralogical composition that are formed due to the influx of quartzofeldspathic material into high grade metamorphic rocks. Two types of migmatite are seen in the district, one is grey and the other is pink. Next to charnockite, migmatite gneiss is the second most extensive rock. The migmatite gneiss consists of quartz, k- feldspar, plagioclase, hornblende and biotite in varying proportions.

2.8 RESOURCES AND RESERVES

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

Table 2.7 Available Geological Resources

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m^3	Rough stone in m^3	Bulk Density	Gravel in Ts	Geological Resources of Rough stone in Ts
XY-AB	I	104	197	2	40976	-	2.00	81952	-
	II	104	197	5	-	102440	2.75	-	281710.00
	III	104	197	5	-	102440	2.75	-	281710.00
	IV	104	197	5	-	102440	2.75	-	281710.00
	V	104	197	5	-	102440	2.75	-	281710.00
	VI	104	197	5	-	102440	2.75	-	281710.00
	VII	104	197	5	-	102440	2.75	-	281710.00

	VIII	104	197	5	-	102440	2.75	-	281710.00
	IX	104	197	5	-	102440	2.75	-	281710.00
	X	104	197	5	-	102440	2.75	-	281710.00
	XI	104	197	5	-	102440	2.75	-	281710.00
	Total				**40976**	**1024400**	-	**81952**	**2817100.00**
XY-CD	I	108	136	2	29376	-	2.00	58752	-
	II	108	136	5	-	73440	2.75	-	201960.00
	III	108	136	5	-	73440	2.75	-	201960.00
	IV	108	136	5	-	73440	2.75	-	201960.00
	V	108	136	5	-	73440	2.75	-	201960.00
	VI	108	136	5	-	73440	2.75	-	201960.00
	VII	108	136	5	-	73440	2.75	-	201960.00
	VIII	108	136	5	-	73440	2.75	-	201960.00
	IX	108	136	5	-	73440	2.75	-	201960.00
	X	108	136	5	-	73440	2.75	-	201960.00
	XI	108	136	5	-	73440	2.75	-	201960.00
	Total				**29376**	**734400**	-	**58752**	**2019600.00**
Grand Total					**70352**	**1758800**	-	**140704**	**4836700.00**

Gravel Formation : 70,352 m3

The Geological Resources of Rough stone : 17,58,800 m3

2.8.1 MINEABLE RESERVES

The mineable reserves are calculated by deducting 7.5 m and 10 m safety distance and bench loss.

Table 2.8 – Available Mineable Reserves

section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m^3	Mineable Reserves in m^3	Bulk Density	Gravel in (Ts)	Mineable Reserves of Rough stone in (Ts)
XY-AB	I	96	178	2	34176	-	2.00	68352	-
	II	93	172	5	-	79980	2.75	-	219945.00
	III	88	162	5	-	71280	2.75	-	196020.00
	IV	83	152	5	-	63080	2.75	-	173470.00
	V	78	142	5	-	55380	2.75	-	152295.00
	VI	73	132	5	-	48180	2.75	-	132495.00
	VII	68	122	5	-	41480	2.75	-	114070.00
	VIII	63	112	5	-	35280	2.75	-	97020.00
	IX	58	102	5	-	29580	2.75	-	81345.00
	X	53	92	5	-	24380	2.75	-	67045.00
	XI	48	82	5	-	19680	2.75	-	54120.00
	Total				**34176**	**468300**	-	**68352**	**1287825.00**
XY-CD	I	100	119	2	23800	-	2.00	47600	-
	II	97	113	5	-	54805	2.75	-	150713.75

	III	92	103	5	-	47380	2.75	-	130295.00
	IV	87	93	5	-	40455	2.75	-	111251.25
	V	82	83	5	-	34030	2.75	-	93582.50
	VI	77	73	5	-	28105	2.75	-	77288.75
	VII	72	63	5	-	22680	2.75	-	62370.00
	VIII	67	53	5	-	17755	2.75	-	48826.25
	IX	62	43	5	-	13330	2.75	-	36657.50
	X	57	33	5	-	9405	2.75	-	25863.75
	XI	52	23	5	-	5980	2.75	-	16445.00
	Total				**23800**	**273925**	-	**47600**	**753293.75**
Grand Total					**57976**	**742225**	-	**115952**	**2041118.75**

The mineable reserve is computed as 7,42,225 m3 of Rough stone and 57,976 m3 of Gravel formation upto a depth 52m below ground level only.

2.9 PROCESS DESCRIPTION AND TECHNOLOGY

2.9.1 PROCESS DESCRIPTON

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

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

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

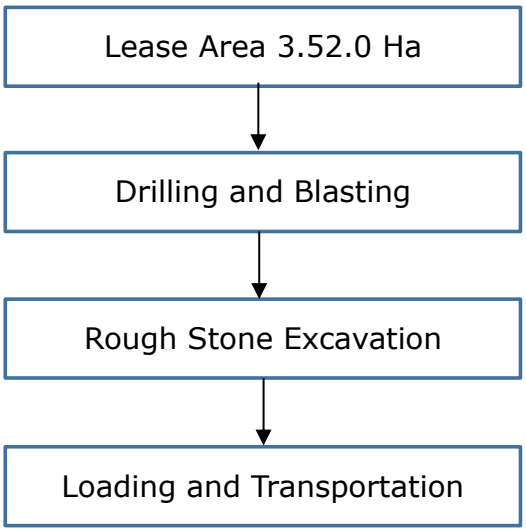


Figure 2.9 Process Flow Diagram

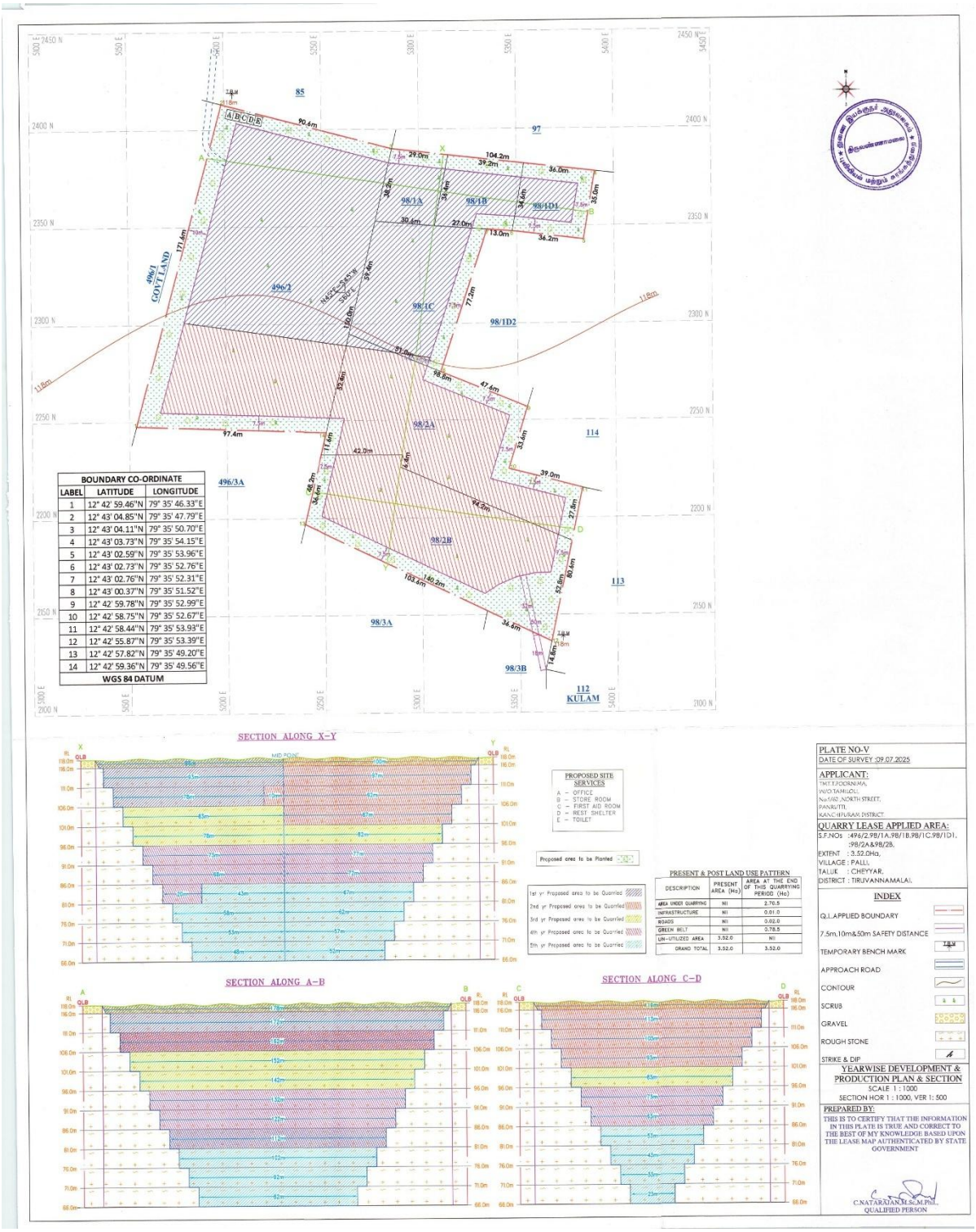


Figure 2.10 Year wise Development & Production Plan & Sections

Table 2.9 – Machinery Details

S.No.	Name of the Equipment	Capacity	Requirement
1	Excavator with Rock breaker attachment	0.90 m^3	2
2	Compressor	400 psi	2
3	Jack hammer	32 mm Dia	5
4	Tipper	10/20 Ts	5

2.9.2 DRILLING AND BLASTING PARAMETERS

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

Table 2.10 – Details of Blasting

Diameter of the hole	32-36 mm
Spacing	0.6m
Depth	1 to 1.5 m
Burden of hole	0.6m
Pattern of hole	Zig zag
Inclination of hole	70^0 from horizontal
Number of holes	454
Powder factor	6Ts/Kg of Explosives
Total explosive required	227 Kg slurry Explosives
Charge / hole	0.5Kg
Blasting time	12-2 Pm

2.9.3 TYPE OF EXPLOSIVE

Slurry explosive is proposed for shattering and heaving effect for removal of rough stone. No deep hole drilling or primary blasting is proposed. The Project Proponent have agreement with M/s. Udayam Explosives to carry out the blasting operation for the proposed quarry. The Blasting Agreement is enclosed as Annexure – 6.

2.9.4 STORAGE OF EXPLOSIVES

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

2.9.5 PRODUCTION SCHEDULE

The year wise production schedule upto lease period of first 5 years is given below, the year wise production plan is given in Figure 2.10.

Table 2.11 Year wise Production 5 Years Plan

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m^3	Rough stone in m^3	Bulk Density	Gravel in (Ts)	Mineable reserve of Rough stone in (Ts)
I	XY-AB	I	96	178	2	34176		2.00	68352	-
		II	93	172	5	-	79980	2.75	-	219945.00
		III	78	162	5	-	63180	2.75	-	173745.00
Total						**34176**	**143160**	-	**68352**	**393690.00**
II	XY-AB	III	10	162	5	-	8100	2.75		22275.00
	XY-CD	I	100	119	2	23800	-	2.00	47600	-
		II	97	113	5	-	54805	2.75	-	150713.75
		III	92	103	5	-	47380	2.75	-	130295.00
		IV	87	93	5	-	40455	2.75	-	111251.25
Total						**23800**	**150740**	-	**47600**	**414535.00**
III	XY-AB	IV	83	152	5	-	63080	2.75	-	173470.00
		V	78	142	5	-	55380	2.75	-	152295.00
	XY-CD	V	82	83	5	-	34030	2.75	-	93582.50
Total						**23800**	**152490**	-	**-**	**419347.5**
IV	XY-CD	VI	77	73	5	-	28105	2.75	-	77288.75
		VII	72	63	5	-	22680	2.75	-	62370.00
	XY-AB	VI	73	132	5	-	48180	2.75	-	132495.00
		VII	68	122	5	-	41480	2.75	-	114070.00
		VIII	20	112	5	-	11200	2.75	-	30800.00
Total							**151645**	-	**-**	**417023.75**
V	XY-AB	VIII	43	112	5	-	24080	2.75	-	66220.00
		IX	58	102	5	-	29580	2.75	-	81345.00
		X	53	92	5	-	24380	2.75	-	67045.00

		XI	48	82	5	-	19680	2.75	-	54120.00
	XY-CD	VIII	67	53	5	-	17755	2.75	-	48826.25
		IX	62	43	5	-	13330	2.75	-	36657.50
		X	57	33	5	-	9405	2.75	-	25863.75
		XI	52	23	5	-	5980	2.75	-	16445.00
Total						**-**	**144190**	-	**-**	**396522.50**
Grand Total						**57976**	**742225**	-	**115952**	**2041118.75**

The applicant has proposed to carry out 742225 m3 of Rough stone and 57976 m3 of Gravel formation upto a depth of 52m below ground level for the period of five years.

2.9.6 DISPOSAL OF WASTE

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

2.10 CONCEPTUAL MINING PLAN / FINAL MINE CLOSURE PLAN

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

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

Table 2.12 - Ultimate Pit Dimension at the end of Lease period

Pit	Length in m (Max)	Width in m (Max.)	Depth in m (Max.), agl
I	196	138	52 m (below ground level)

Table 2.13 - Land use pattern of the Project site

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying pit	Nil	2.70.5
Infrastructure	Nil	0.01.0
Roads	Nil	0.02.0
Greenbelt	Nil	0.78.5
Unutilized	3.52.0	Nil
Total	**3.52.0**	**3.52.0**

- At the end of life of mine, the excavated mine pit / void of 2.70.5 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 (0.78.5 Ha.) will be developed along the safety barrier and top benches and 0.03 Ha are approach road and Infrastructure.

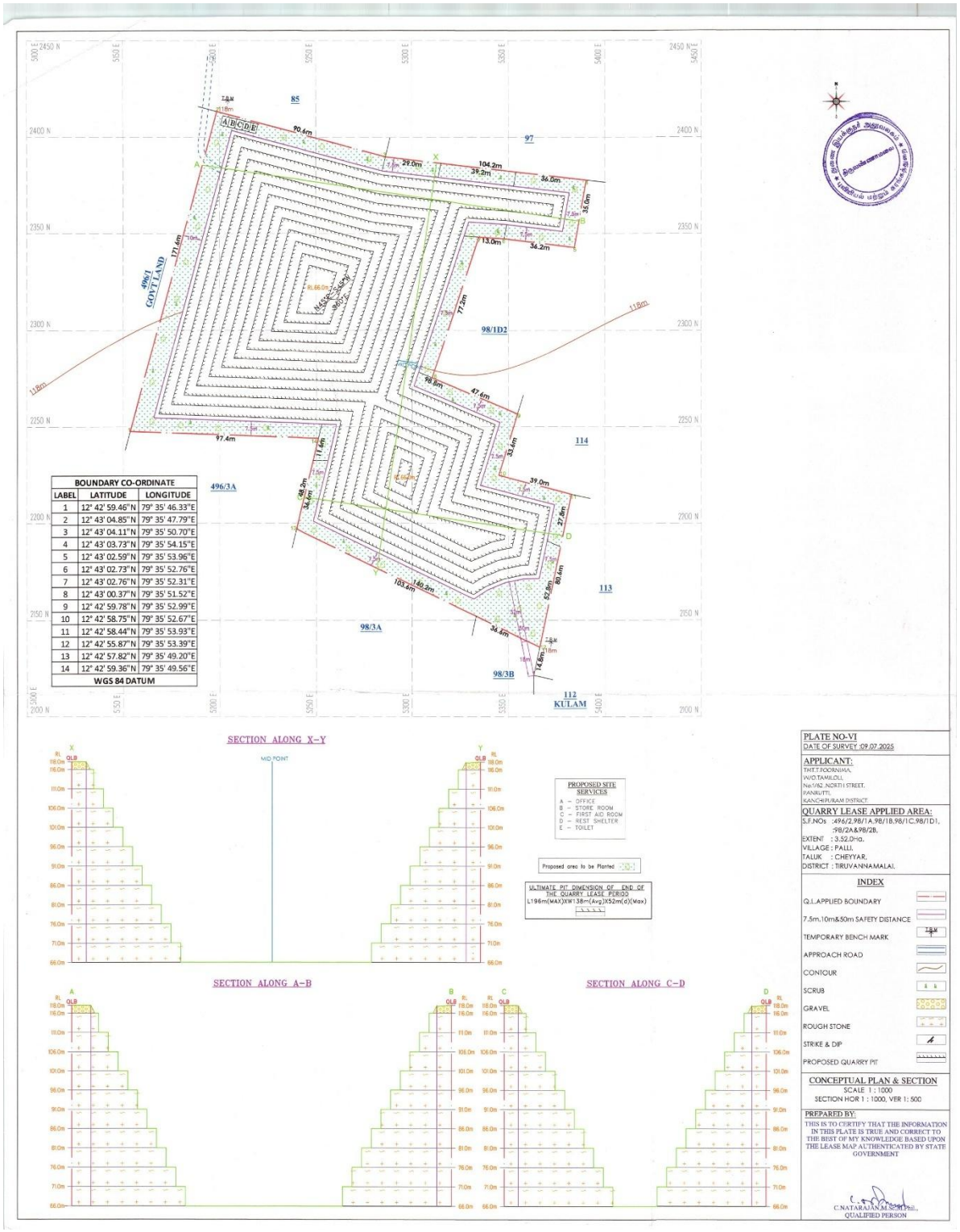


Figure 2.11 Conceptual Plan and Cross Section

2.11 PROJECT REQUIREMENT

2.11.1 WATER REQUIREMENT AND SOURCE

The total water requirement estimated for the quarry is 5.0KLD. The required water will be procured from outside agencies initially and later rainwater harvested in the mine pit shall be used other than drinking purpose.

Table 2.14 Details of Water requirement

Activity	Water Requirement in KLD
Drinking & Domestic	1.5
Dust Suppression	2.0
Greenbelt Development	1.5
Total	**5.0**

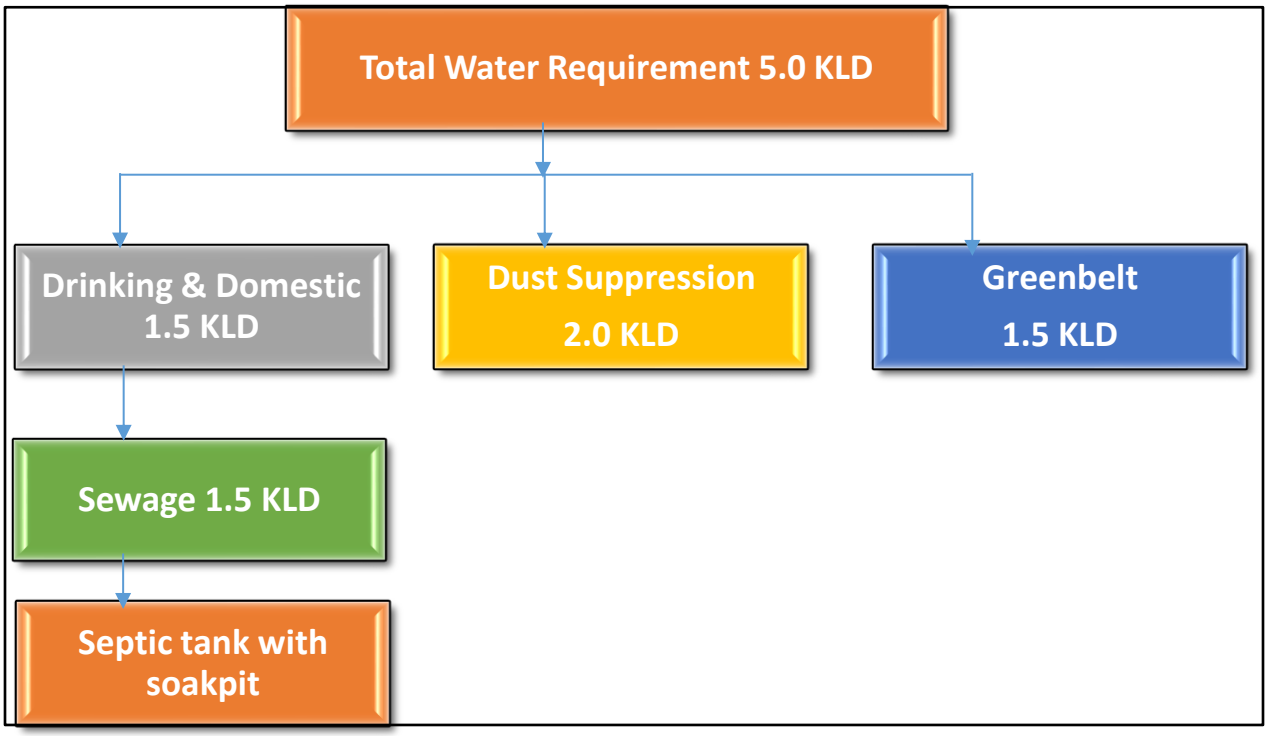


Figure 2.12 Water Balance Chart

2.11.2 POWER REQUIREMENT

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

2.11.3 FUEL REQUIREMENT

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

Table 2.15 Details of Fuel (HSD) Requirement

i) For Rough Stone

Per hour excavator will consume	16 liters /hr
Per hour excavator will excavate	20 m3 of Rough Stone
For 7,42,225 m3	7,42,225 / 20 = 37,111.25
So, Diesel consumption	= 37,111.25 x 16 litres
	= 5,93,780 litres of HSD

Total fuel consumption is around 5,93,780 Litres of HSD for the entire period of life.

ii) For Gravel

Per hour excavator will consume	10 liters /hr
Per hour excavator will excavate	60 m3 of Gravel
For 57,976 m3	57,976 / 60 = 966.26
So, Diesel consumption	= 966.3 x 10 litres
	= 9663 litres of HSD

Total fuel consumption is around **6,03,443 litres** of HSD for the entire period of life.

2.11.4 EMPLOYMENT GENERATION

The project will provide employment opportunities totally to 33 Nos. persons.

Table 2.16 Details of Manpower requirement

1.	Skilled	Mines Manager	1 No.
		Foreman / Mate	2 No.
		Operator	12 No.
		Mechanic	1 No.
2.	Semi–skilled	Driver	5 No.
3.	Unskilled	Labours	12Nos
	Total		**33Nos**

2.11.5 GREEN BELT REQUIREMENT

The safety zone, covering an area of 0.78.50 Hectares, will be maintained as a green belt and planted with 785 Nos. of local species.



Figure 2.13 Fencing and Plantation Photos

2.11.6 VEHICULAR TRAFFIC DENSITY

The proposed quarry is located in Palli village. The details of transport route from the crusher plant are shown below:

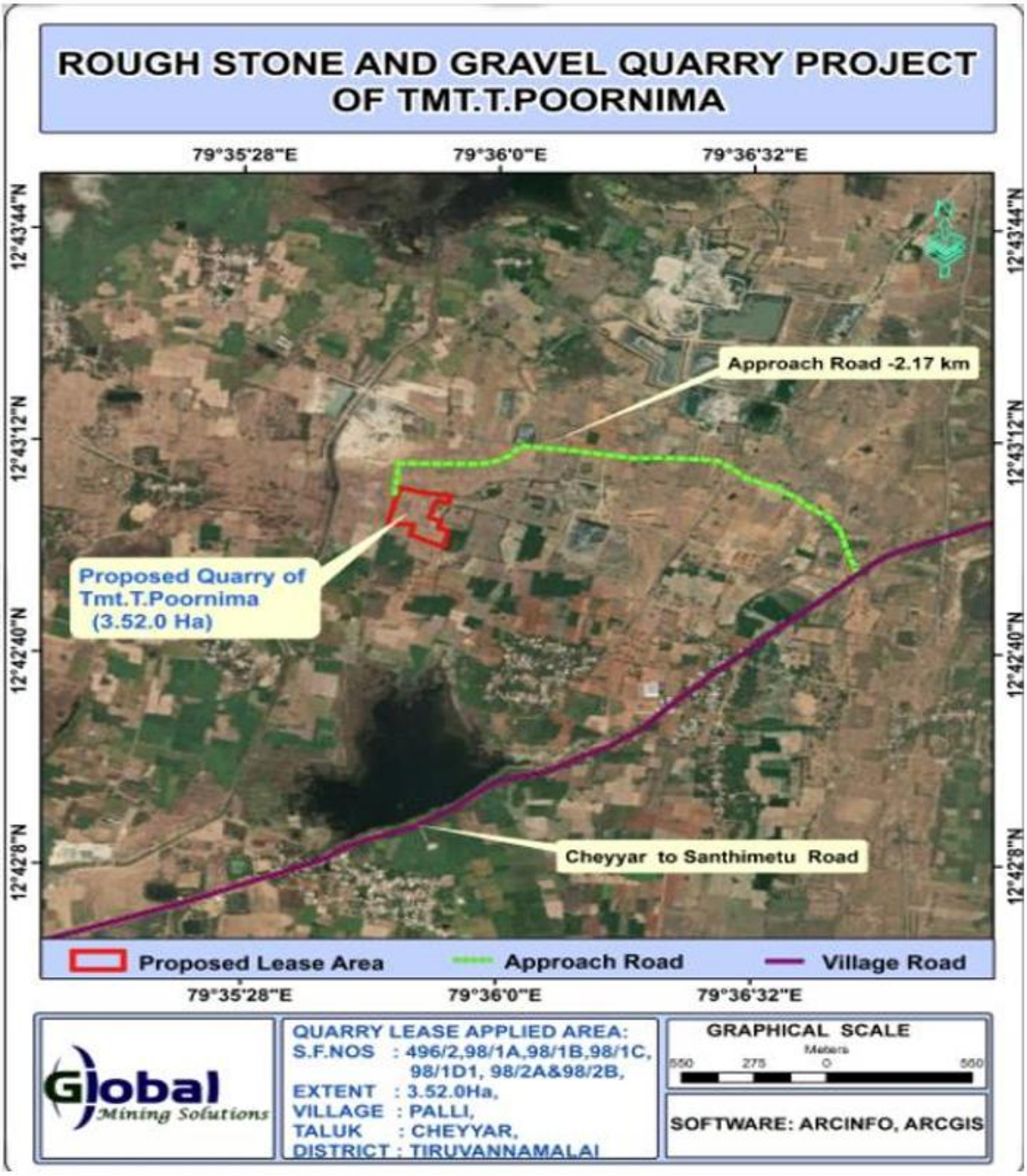


Figure 2.14 Traffic Map with Distance of nearest Crusher

The vehicular traffic survey will be carried out in the route through which mined out minerals are transported. Within 500 m radius, there are one existing quarry and two

proposed quarries including this proposal. The final product from this quarry will be transported through Cheyyar to Kanchipuram Road which is located 2.17 km in Northeast side of the project area.

Methodology

Vehicle Count

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

Categorization of Traffic

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

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

Mineral Transportation

Table 2.17 Mineral Transportation			
Production Per day in tons			
Quarry	**Quarry Name**	**Total Mineral in tons per day**	**No. of Lorry Load per day**
P1 (Proposed)	Thiru.S.Gokulraj	1038	52 (20 Ts Lorry)
P2 (Existing)	S.Nirmal	538	54 (10 Ts Lorry)
P3 (Proposed)	Tmt.T.Poornima	1626	81(20 Ts Lorry)
Total		**3202**	**187**

As existing project is part of current traffic flow, the incremental volume were considered only for projects i.e proposed incremental volume is 133.

Table 2.18 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
Cheyyar – Kancheepuram Road	253	50	303	1500

Table 2.19 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
Cheyyar – Kancheepuram Road	253	0.16	50	0.03	0.19	A*(Free Flow)

2.11.7 INFRASTRUCTURE REQUIREMENT

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

2.11.8 PROJECT COST

The total project cost of this rough stone Quarry is Rs. 135.70 lakhs

2.11.9 PROJECT IMPLEMENTATION SCHEDULE

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

***

CHAPTER 3
DESCRIPTION OF THE ENVIRONMENT

3.1. STUDY AREA, PERIOD COMPONENTS AND METHODALOGY

The project area is located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State over an extent of 3.52.00 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 MOEFCC 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.

3.2 ENVIRONMENTAL SETTING OF THE STUDY AREA

Table 3.1 Description of the lease area

S.No.	Areas	Distance from project site
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil within 15km radius
2	Areas which are important or sensitive for ecological reasons	
A	Wetlands, water courses or other water bodies,	Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (SW)
B	Coastal zone, biospheres,	Nil within 10km radius
C	Mountains, forests	Nil within 10Km radius Enadavadi R.F – 11.53KM(w)
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	Palli – 490m - SE
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Palli – 490m - SE
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.

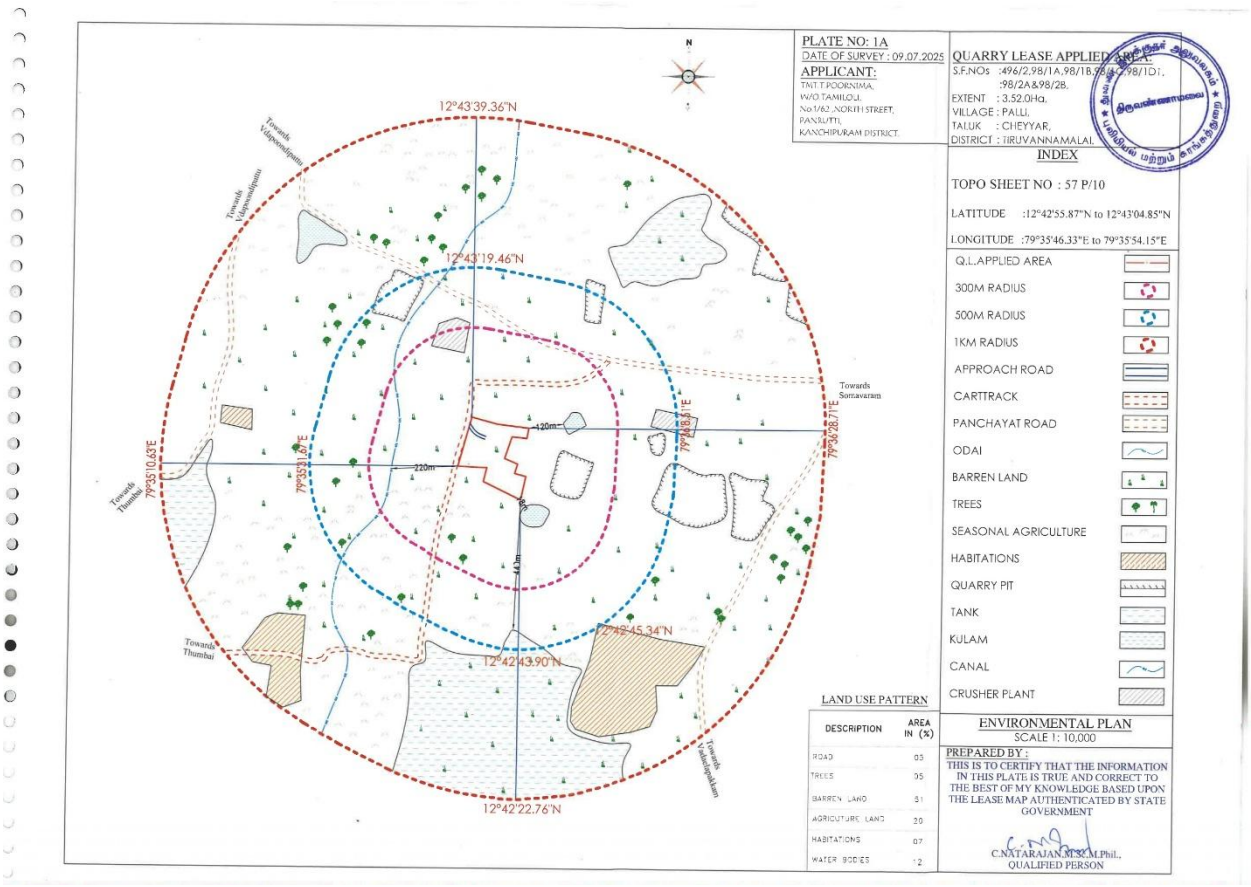


FIG 3.1 ENVIRONMENTAL SETTING OF THE STUDY AREA (1 km Radius)

3.3 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.

3.4 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

3.4.1 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)

S.No	Environmental Component	Primary data		
		Parameters	Frequency	Monitoring/ Sampling locations
1	Land	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	Once in a Season	10 km radius study area
2	Meteorology	Temperature, Relative Humidity, Wind Speed, Wind Direction.	Hourly	1
3	Air	PM10, PM2.5, SO2, NO2, CO & PAH	twice a week (24 hourly)	7
4	Noise	Equivalent noise levels in Leq in dB (A)	Once in a season (day & night time)	7
5	Water	Parameters as per IS 10500 - 2012	Once in a season	
A	Surface Water	Parameters as per IS 10500 - 2012	Once in a season	2
B	Ground Water	Parameters As per IS 2720/USDA	Once in a season	7
6	Soil	Parameters As per IS 2720/USDA	Once in a season	7
7	Biological Environment	Flora and Fauna	Once in a season	Study Area
8	Socio- Economic Environment	Socio-Economic Environment	Once in a season	Study Area

3.4.2 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.

3.4.3 BASE MAP OF ALL ENVIRONMENTAL COMPONENTS

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

A site survey has been conducted to identify and list structures located within a 300 m radius from the proposed Quarry and are detailed below. There are permanent structures within a 300 m radius from the project site. The PP has obtained a letter from Village Administrative Office (VAO), Palli stating that there are no structures situated within 300 m radius.

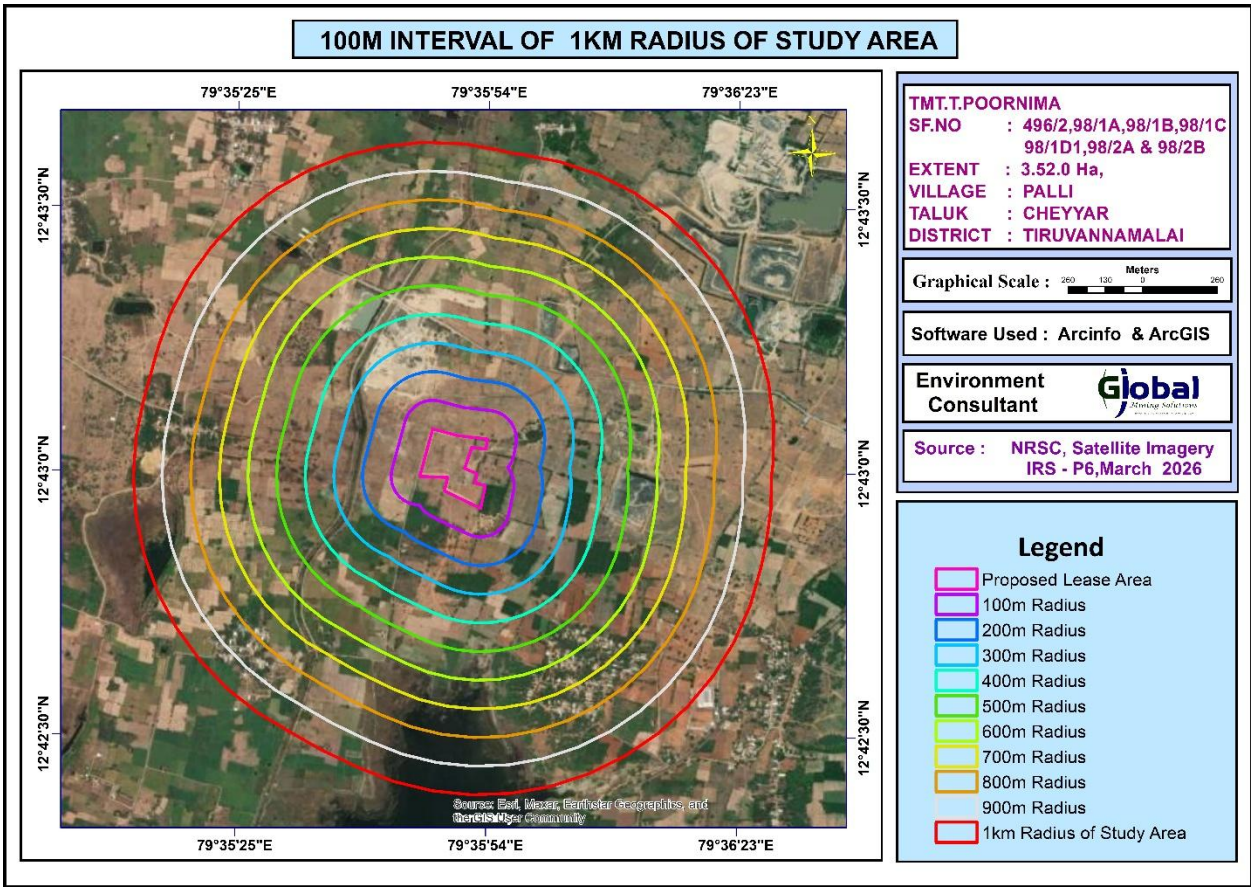


FIG 3.2 GOOGLE MAP SHOWING 100M INTERVAL FOR 1 km RADIUS FROM THE LEASE AREA



S1 – Crusher Unit



S2 - Worker's House



S3 - Worker's shed



S4 - Worker's House



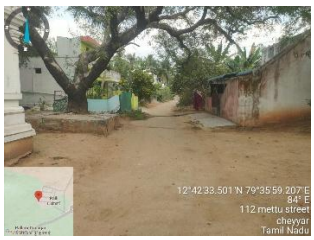
S5 - Labours Shed



S6 - Crusher unit



S7 - Agriculture Shed



S8 - Habitation



S9 - Habitation







S10 - Bus Stop

S11 - Tar plant (Closed)

S12 - Worker's House







S13 - Poultry farm

S14 - Poultry farm

S15 - Agriculture shed and paddy field





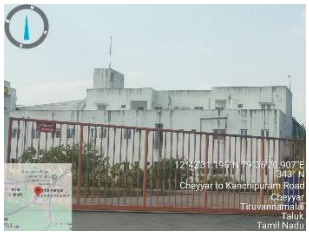


S16 - Vermicompost bin

S17 - Habitation

S18 - Agriculture Shed





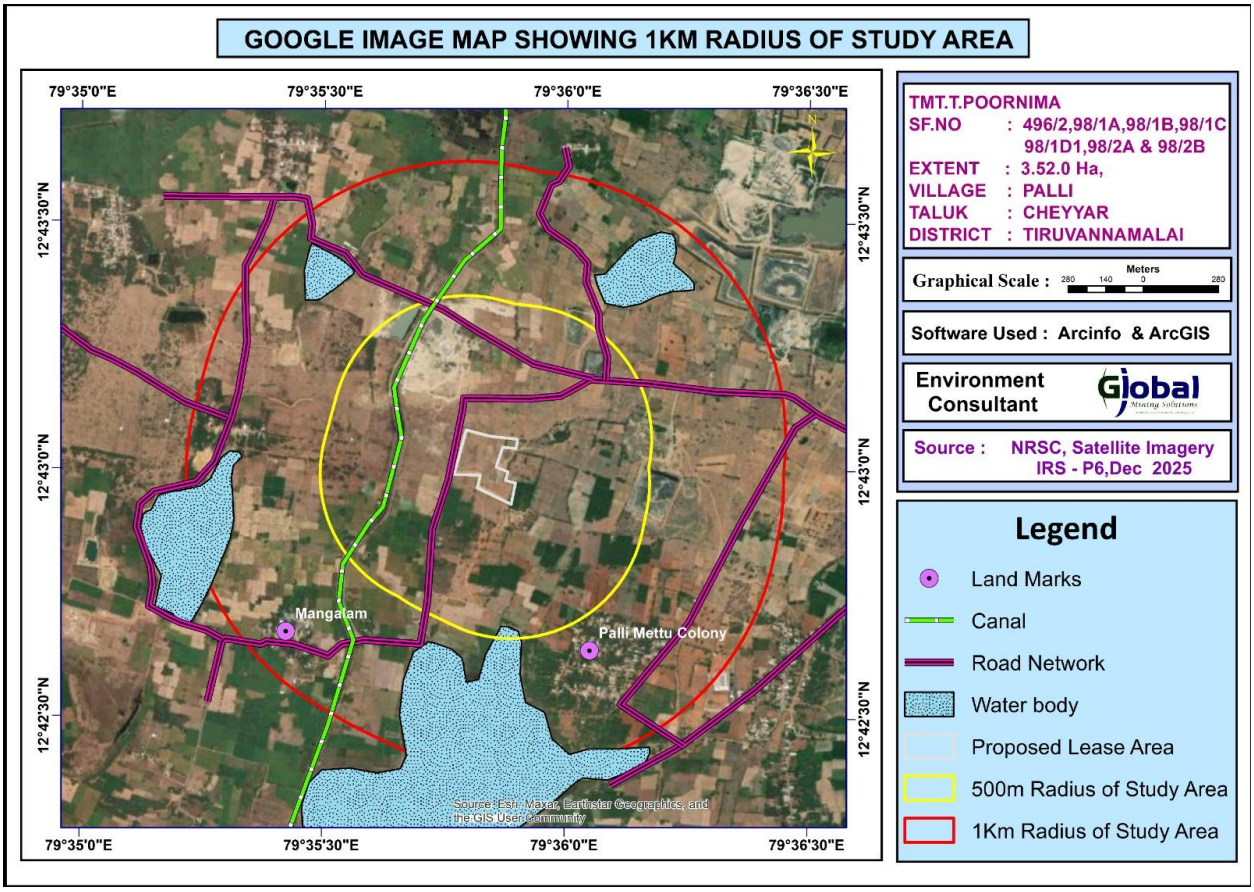


S19 - Cemetry

S20 - Voltec Company

S21 - Pond

FIGURE - 3.3 SATELLITE MAP OF THE PROJECT AREA (1 KM RADIUS)



3.5 METEOROLOGICAL ENVIRONMENT

Meteorological conditions prevailing in the buffer zone is given below

3.5.1 Climate and Rainfall data

Thiruvannamalai has a **tropical to semi-arid climate** with **hot summers and mild winters**. It receives most of its rainfall from both the **Northeast and Southwest monsoons**. **Summer (Apr–Jun):** Hot; average maximum up to around **40–42 °C** in peak months. **Winter (Dec–Feb):** Mild to cool nights; minimum temperatures can fall near **16–20 °C**. **Average annual temperature:** ~ 28.2 °C district-wide. **Normal annual rainfall** is about 1074.7 mm. Rainfall distribution by season: • **Northeast Monsoon (Oct–Dec):** ~ ~ 45 % of total rainfall. • **Southwest Monsoon (Jun–Sep):** ~ ~ 44 % (based on 468.4 mm of 1074.7 mm). **Pre-monsoon +**

Winter (Jan–May): ~ ~ 11 % of total. District weather reports include *episodic heavy rainfall* during active monsoon periods — e.g., individual stations reporting **100+ mm in 24 h** during strong wet spells. Spatial variation within the district: Normal rainfall varies across localities. For the long historic period (2021 - 2025), the normal rainfall in different parts ranged from ~908 mm to ~1173.8 mm.

Table 3.2 Rainfall Data

Actual Rainfall in mm					**Normal Rainfall in mm**
2021	2022	2023	2024	2024	
433	1541.5	1184.4	1225.1	684.1	1013.62

3.5.2 Seismic information

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

Table 3.3 Meteorological Data Recorded at Site

S.NO	Parameters		March to May 2025
1.	Temperature (^{0}C)	Min	27.0
		Max.	40.0
		Avg	33.5
2.	Relative Humidity (%)	Min	58
		Max	79
		Avg	68.5
3.	Wind Speed (m/s)	Min	1.0
		Max	3.2
		Avg	8.7
4.	Wind Direction	Blowing From – ESE	

FIG 3.4 SEISMIC MAP OF INDIA

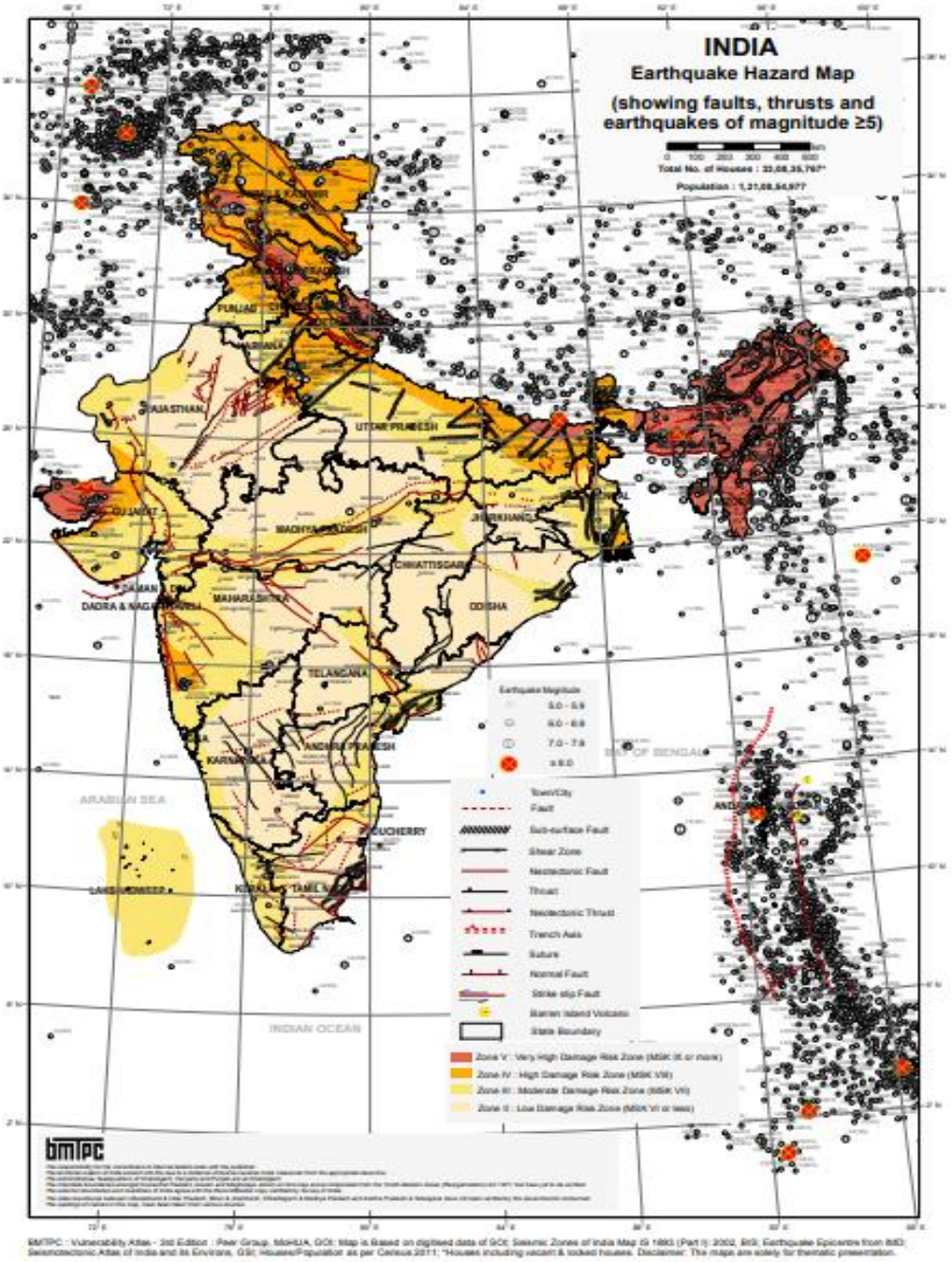
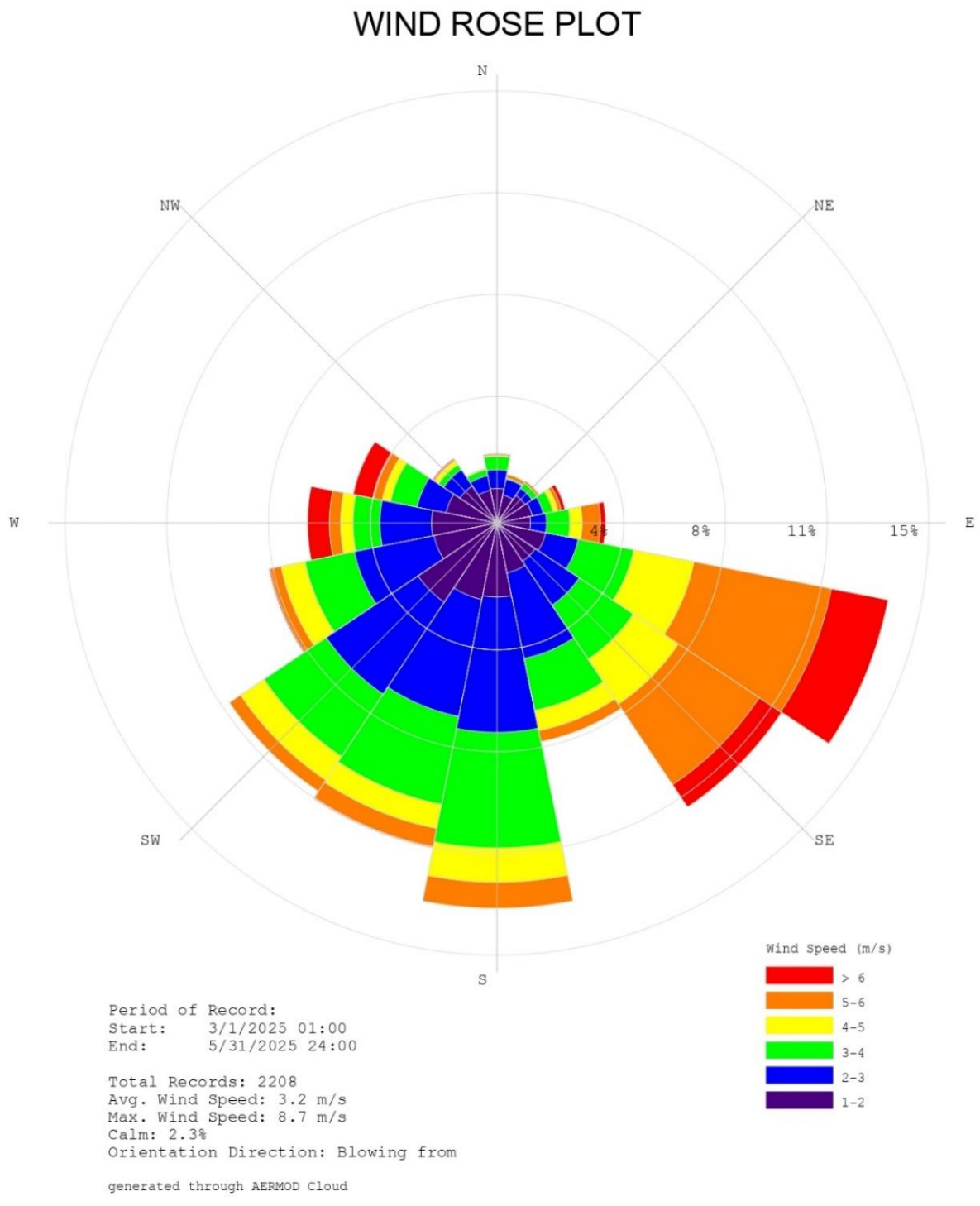


FIG 3.5 WIND ROSE PLOT DURING MARCH TO MAY 2025



3.5.3 Meteorological data of the project area

The meteorological data collected in the study area from March 2025 to May 2025 which includes Temperature, Wind speed and Wind direction. The predominant wind blows from East. The temperature of the area is reported to be 27°C and 40°C during summer.

3.6 AMBIENT AIR MONITORING DATA

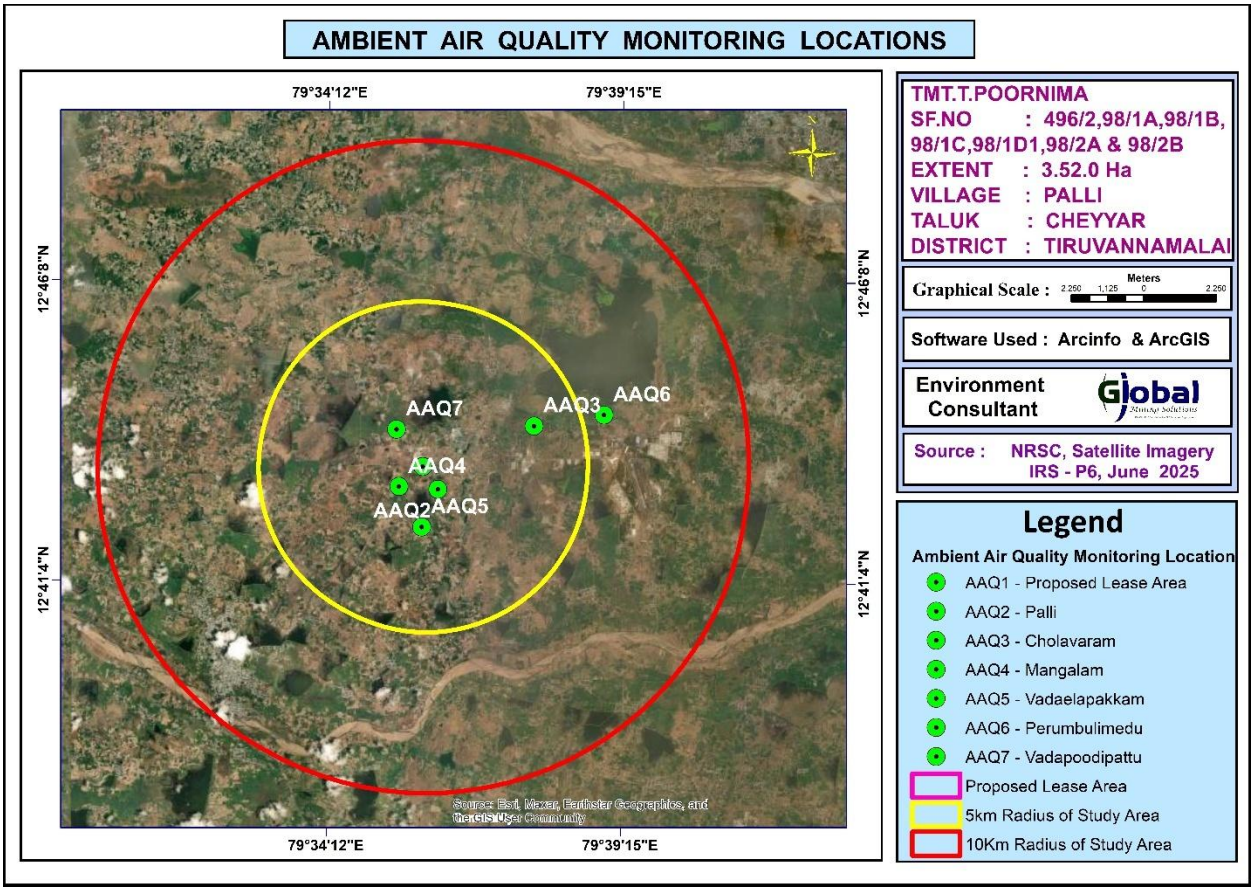
Ambient air quality monitoring has been carried out in 7 locations. One in the core zone and remaining six locations in the buffer zone areas. Monitoring locations have been chosen such that the measurement represents the overall air condition prevailing in the area. The study area represents mostly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

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

The levels of Respirable Particulate Matter (PM_{10}), Fine Particulates ($PM_{2.5}$), Sulphur Dioxide (SO_2) and Oxides of Nitrogen (NO_x) were monitored for establishing the baseline status. PM_{10} were sampled with the help of Respirable Dust Samplers on filter papers and SO_2 & 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 – 3.3 and Figure 3.5 below.

Table 3.4 Details of Ambient Air Quality Monitoring Locations				
S. No.	Station Code	Locations	Latitude	Longitude
1	AAQ 1	Project Site	12°43'0.73"N	79°35'49.83"E
2	AAQ 2	Palli	12°42'37.79"N	79°36'5.59"E
3	AAQ 3	Cholavaram	12°43'42.39"N	79°37'43.72"E
4	AAQ 4	Mangalam	12°42'40.15"N	79°35'27.86"E
5	AAQ 5	Vadaelapakkam	12°41'59.98"N	79°35'48.74"E
6	AAQ6	Perumbulimedu	12°43'51.40"N	79°38'56.61"E
7	AAQ7	Vadapoondipattu	12°43'36.65"N	79°35'25.76"E

FIG 3.6 BASE MAP OF AMBIENT AIR MONITORING LOCATIONS



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

Table.3.5 Results of Air sampling Analysis in 7 locations

Station ID	Min	Max	Avg.
Particulate matter PM-$_{2.5}$ ($\mu g/m^3$)			
AAQ-1	22.7	32.1	27.8
AAQ-2	18.6	28.6	22.2
AAQ-3	19.7	28.6	23.05
AAQ-4	19.8	30.2	25.3
AAQ-5	21.7	31.3	25.1
AAQ-6	23.3	35.4	26.4
AAQ-7	23.5	35.6	26.6
CPCB NAAQS 2009 for PM $_{2.5}$ - 60 $\mu g/m^3$			
Particulate matter PM-$_{10}$ ($\mu g/m^3$)			
AAQ-1	47.5	67.5	58.6
AAQ-2	40.8	52.6	47.8
AAQ-3	43.2	54.5	47.4
AAQ-4	46.2	60.3	51.4
AAQ-5	48.5	63.3	55.3
AAQ-6	50.3	64.4	55.4
AAQ-7	50.9	65	56.0
CPCB NAAQS 2009 for PM $_{10}$ - 100 $\mu g/m^3$			
Sulphur Di-oxide as SO_2 ($\mu g/m^3$)			
AAQ-1	5.5	8.7	6.8
AAQ-2	3.4	5.9	4.3
AAQ-3	3.7	6	4.6
AAQ-4	4	6.4	4.8
AAQ-5	3.8	8.4	5.7
AAQ-6	4.2	6.6	5.2
AAQ-7	4.4	6.8	5.5
CPCB NAAQS 2009 for SO_2 – 80 $\mu g/m^3$			
Oxide of Nitrogen as NO_2 ($\mu g/m^3$)			
AAQ-1	10	12.9	11.2
AAQ-2	7.3	9.8	8.25
AAQ-3	6.7	8.7	7.6
AAQ-4	7.3	10.3	8.4
AAQ-5	7.7	12.4	9.5
AAQ-6	7.9	11.8	9.3
AAQ-7	8.5	12.4	9.9
CPCB NAAQS 2009 for NO_2 – 80 $\mu g/m^3$			

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

FIG 3.7 AMBIENT AIR QUALITY DATA A1 – PROJECT SITE

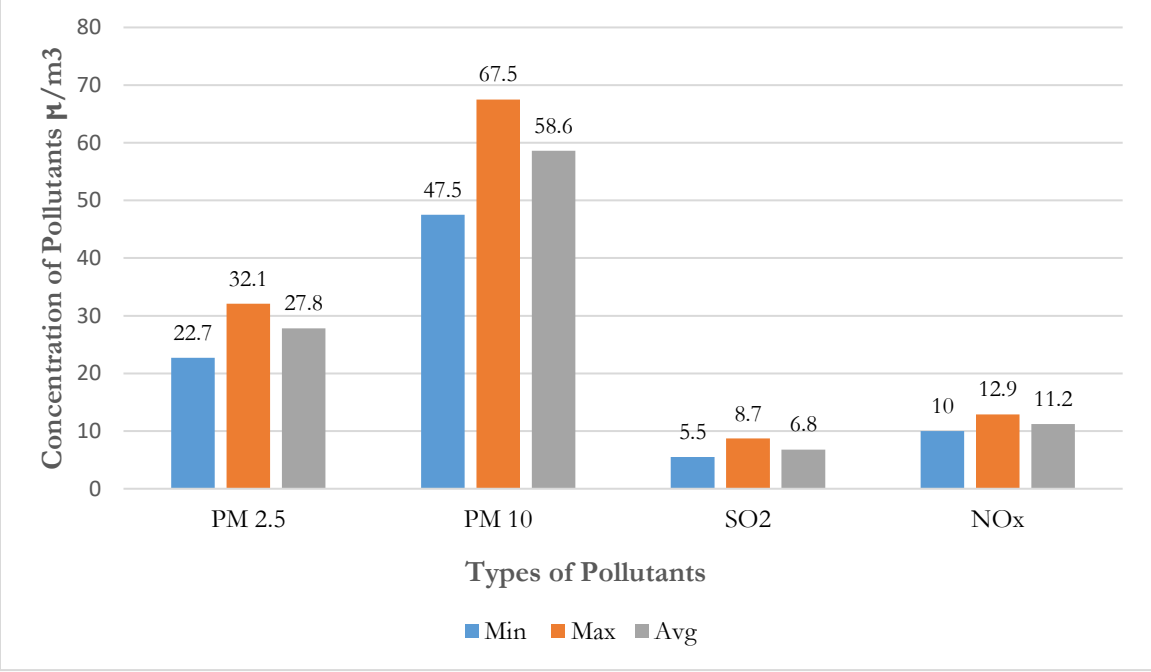


FIG 3.8 AMBIENT AIR QUALITY DATA A2 – PALLI VILLAGE

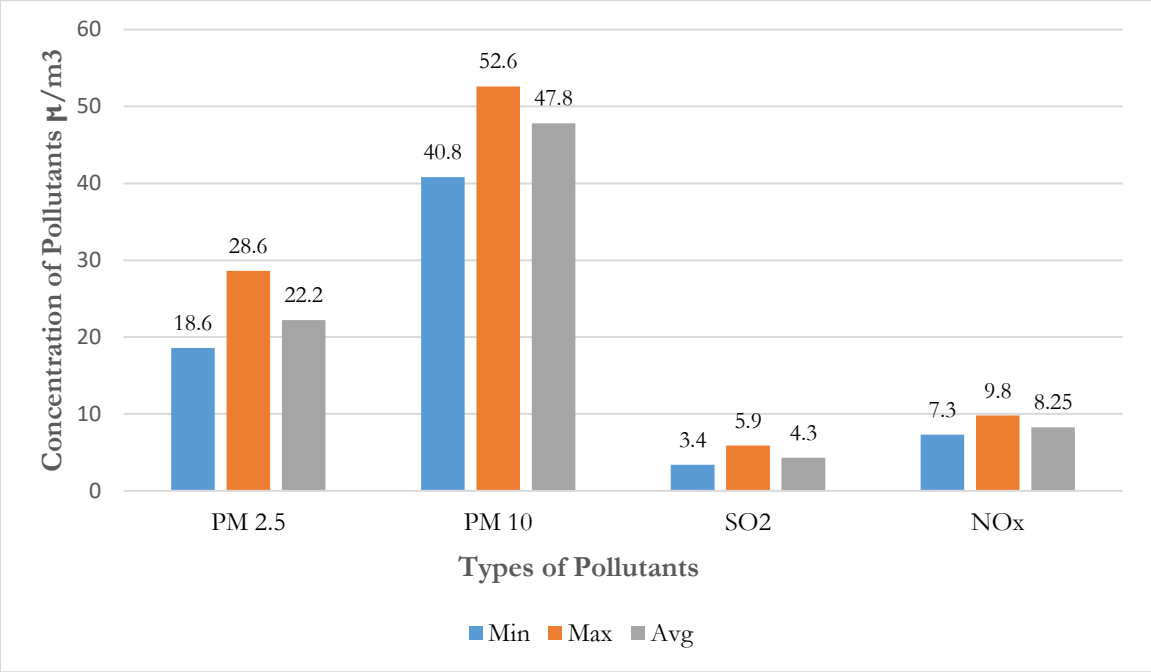


FIG 3.9 AMBIENT AIR QUALITY DATA A3 – CHOLAVARAM VILLAGE

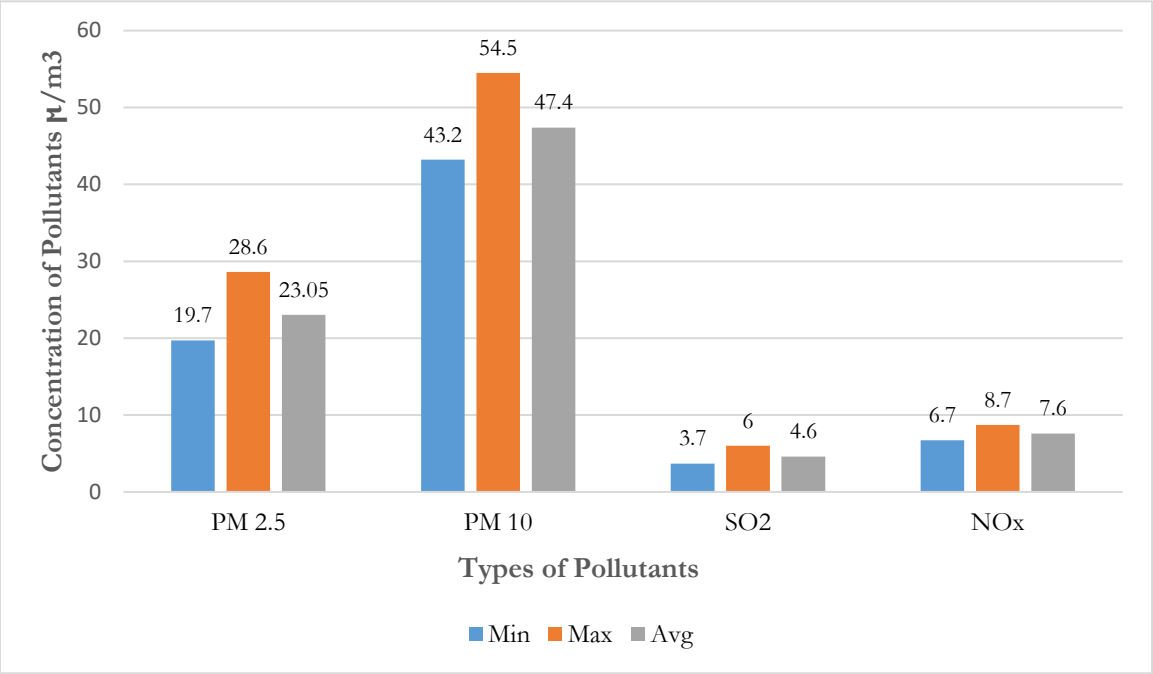


FIG 3.10 AAQ DATA A4 – MANGALAM VILLAGE

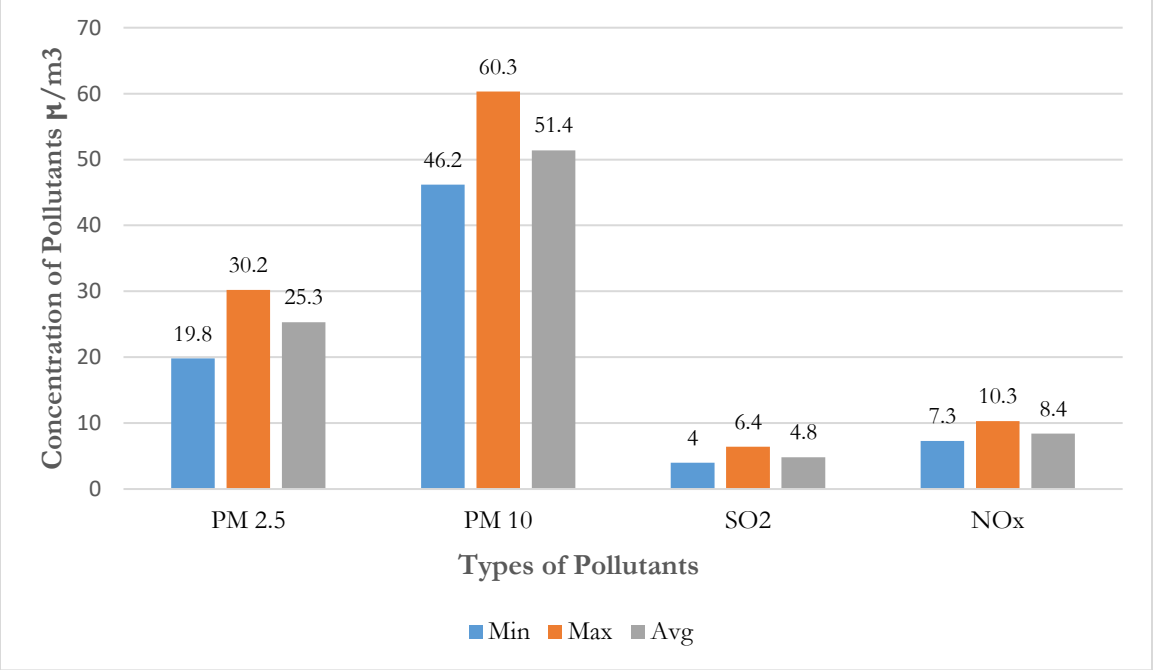


FIG 3.11 AMBIENT AIR QUALITY DATA A5 – VADAELAPAKKAM VILLAGE

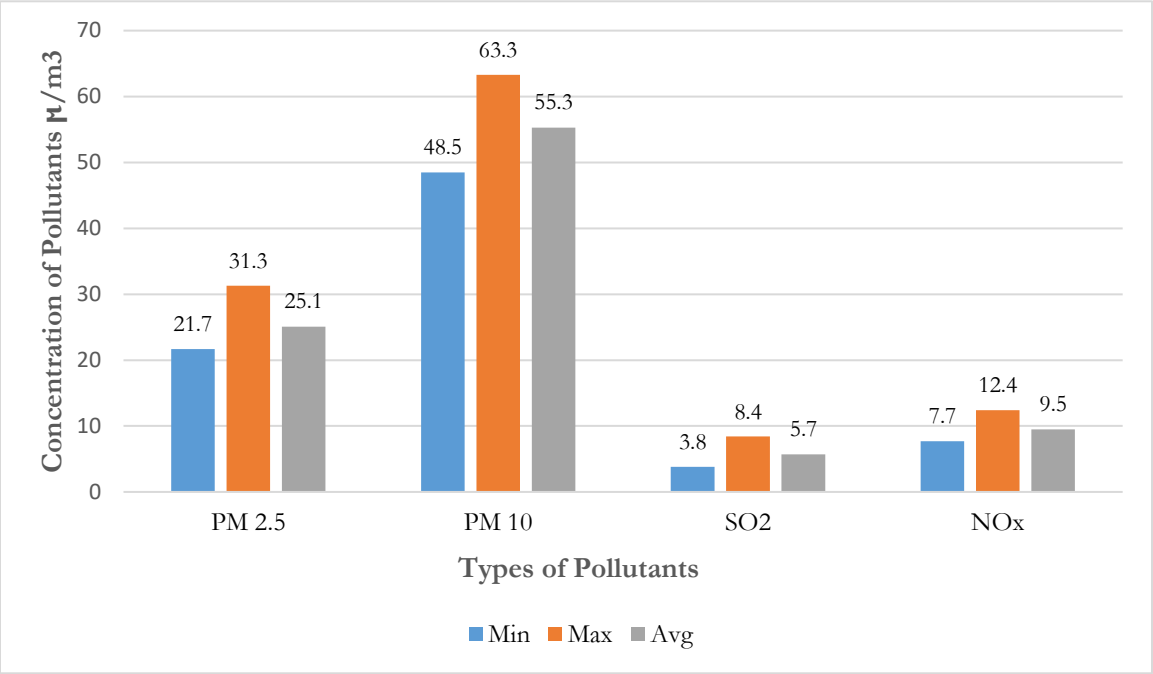


FIG 3.12 AMBIENT AIR QUALITY DATA A6 – PERUMBULIMEDU VILLAGE

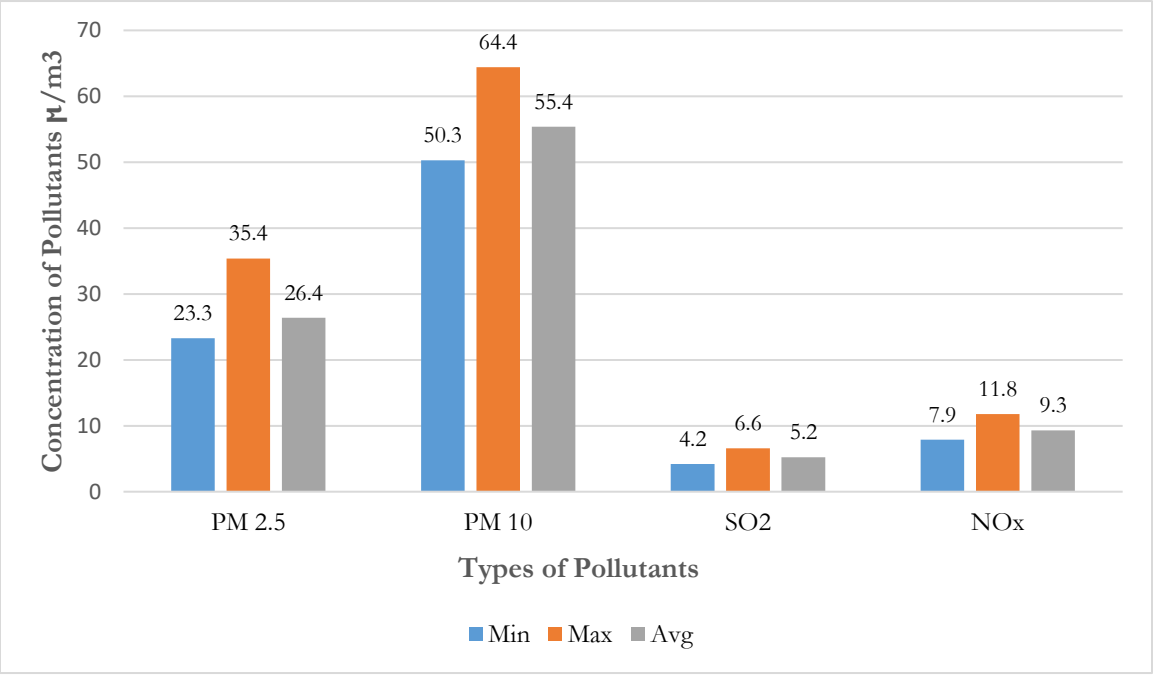
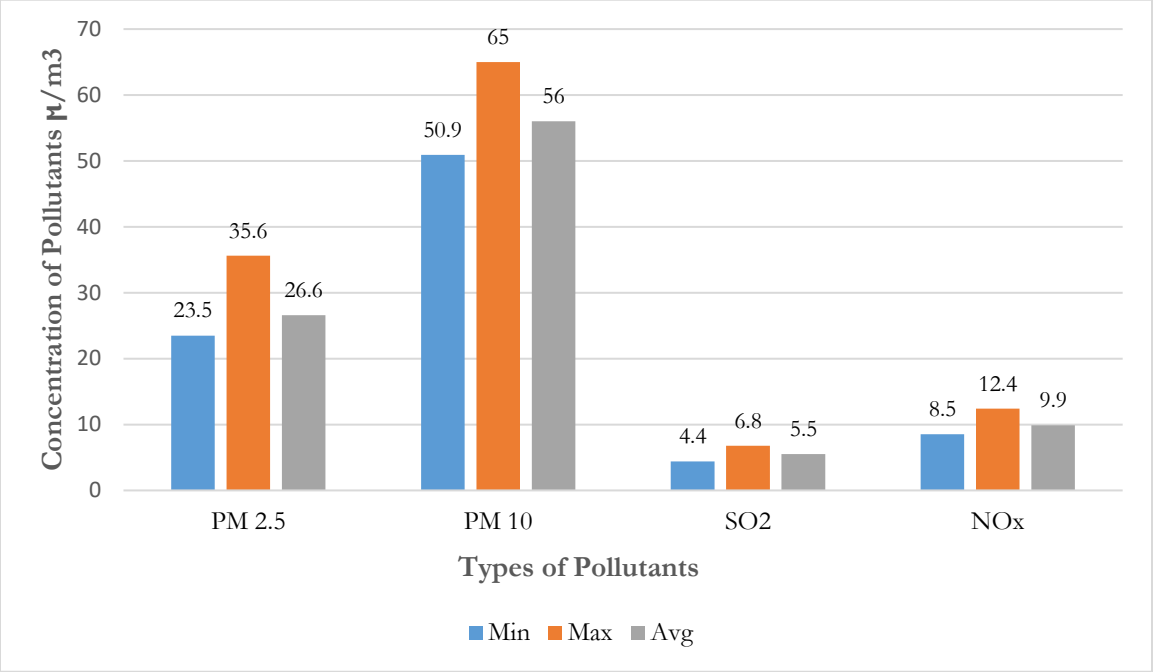


FIG 3.13 AMBIENT AIR QUALITY DATA A7 – VADAPOONDIPATTU VILLAGE



From the above results, it is observed that the ambient air quality with respect to PM_{10}, $PM_{2.5}$, SO_2, and NO_2 at all the monitoring locations was within the permissible limits specified by CPCB.

3.6.1 DISCUSSION

From the table it is seen that, in the ambient air, the PM2.5 values were in the range of 18.25 – 35.6 µg/m3. PM10 values were in the range of 40.80 – 67.5 µg/m3. SO_2 levels were ranging from 3.40 – 8.7 µg/m3. NO_2 levels were ranging from 6.7 – 12.9 µg/m3. While comparing with the NAAQ Norms laid by MoEFCC, all monitored values of PM2.5, PM10, 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 – 1.1 µg/m_3).

3.7 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.

3.7.1 Surface Water

No major river is found nearby the lease applied area.

Water bodies in buffer zone: Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (SW)

The area is studded with few tanks that serve as the source for agriculture and also their surplus feeds adjoining tanks. 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 3-14 and Figure 3.11.

3.7.2 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 Seven (7) 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.

3.7.3 Sampling Locations

Two (2) surface water samples and Seven (7) ground water samples were collected from the study area and were analysed for physio-chemical, heavy metals and bacteriological parameters in order to assess the effect of mining and other activities on water bodies. The samples were analysed as per the procedures specified by CPCB, IS-10500:2012. The water sampling locations are given in Table 3.5 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
Surface Water			
1	SW1	Cheyyar River - Up stream	12°39'12.62"N & 79°36'1.96"E
2	SW2	Cheyyar River -Down stream	12°39'37.24"N & 79°37'5.85"E
Ground Water			
1	GW1	Project site	12°43'0.73"N & 79°35'49.83"E
2	GW2	Palli	12°42'37.79"N & 79°36'5.59"E
3	GW3	Cholavaram	12°43'42.39"N & 79°37'43.72"E
4	GW4	Mangalam	12°42'40.15"N & 79°35'27.86"E
5	GW5	Vadaelapakkam	12°41'59.98"N & 79°35'48.74"E
6	GW6	Perumbulimedu	12°43'51.40"N & 79°38'56.61"E
7	GW7	Vadapoondipattu	12°43'36.65"N & 79°35'25.76"E

FIG 3.14 BASE MAP OF GROUND WATER SAMPLING LOCATIONS

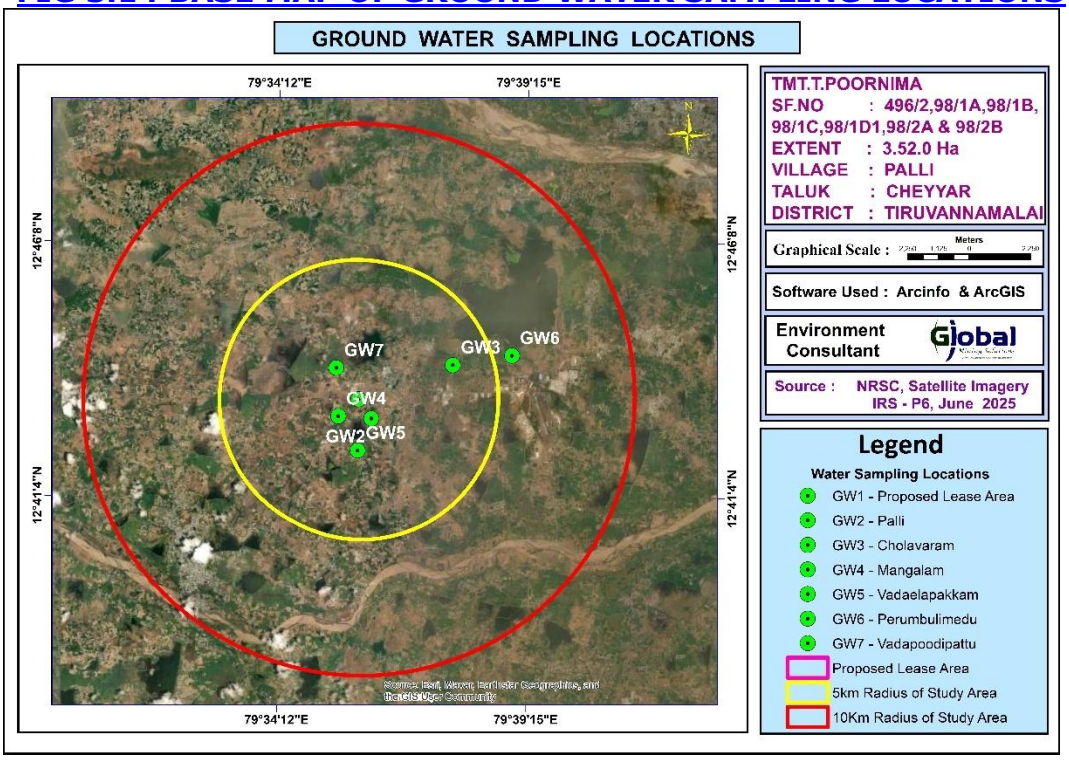


FIG 3.15 BASE MAP OF SURFACE WATER SAMPLING LOCATIONS

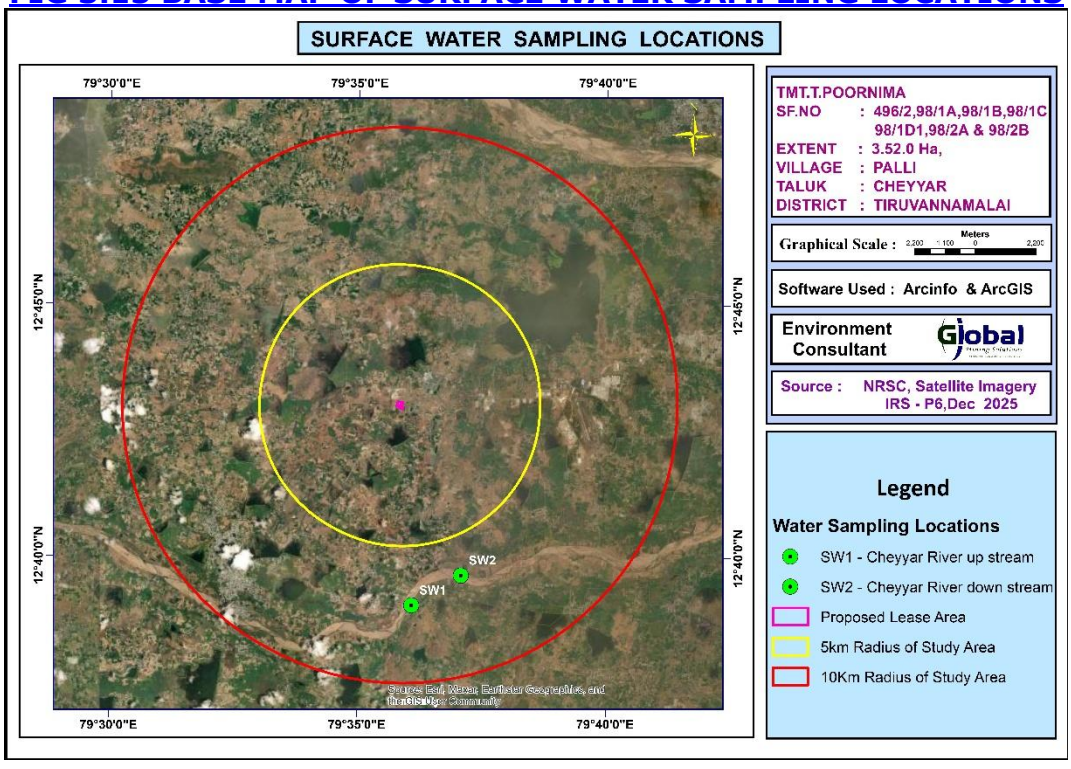


Table 3.7 Surface Water Analysis Results

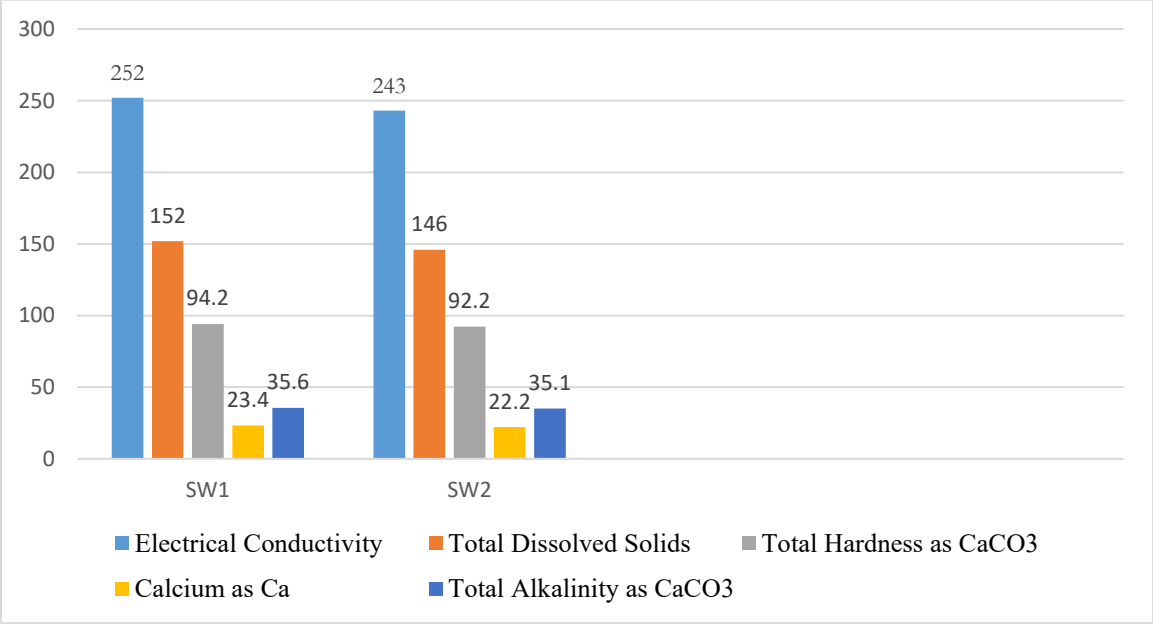
Parameter	Unit	SW1 (Cheyyar River Up Stream)	SW2 (Cheyyar River Down Stream)	Surface water standard s (IS 2296 Class-A)
Odour	-	Agreeable	Agreeable	-
Turbidity	NTU	<1.0	<1.0	1
pH at 25 °C	-	7.72	7.89	6.5-8.5
Electrical Conductivity	µs/cm	252	243	-
Total Dissolved Solids	mg/l	152	146	500
Total hardness as CaCO3	mg/l	94.2	92.2	-
Calcium as Ca	mg/l	23.4	22.2	300
Magnesium as Mg	mg/l	8.57	8.81	-
Calcium as CaCO3	mg/l	58.5	55.5	-
Magnesium Hardness as CaCO3	mg/l	35.7	36.7	-
Total alkalinity as CaCO3	mg/l	35.6	35.1	-
Chloride as Cl-	mg/l	142	138	
Free Residual chlorine as Cl-	mg/l	BDL (D.L - 0.2)	BDL (D.L - 0.2)	250
Sulphates as SO42-	mg/l	15.6	18.9	400
Iron as Fe	mg/l	BDL (D.L - 0.01)	BDL (D.L - 0.01)	1.0
Nitrate as NO3	mg/l	BDL(DL-1.0)	BDL(DL-1.0)	20
Fluoride as F	mg/l	0.28	0.32	1.5
Manganese as Mn	mg/l	BDL (D.L-0.05)	BDL (D.L-0.05)	0.5
Chemical Oxygen Demand	-	BDL (D.L – 4.0)	BDL (D.L – 4.0)	-
Bio Chemical Oxygen Demand 3 Days at 27oc	-	BDL (D.L – 2.0)	BDL (D.L – 2.0)	-
Total Suspended Solids	-	BDL (D.L – 2.0)	BDL (D.L – 2.0)	-
Dissolved Oxygen	-	6.2	6.3	-

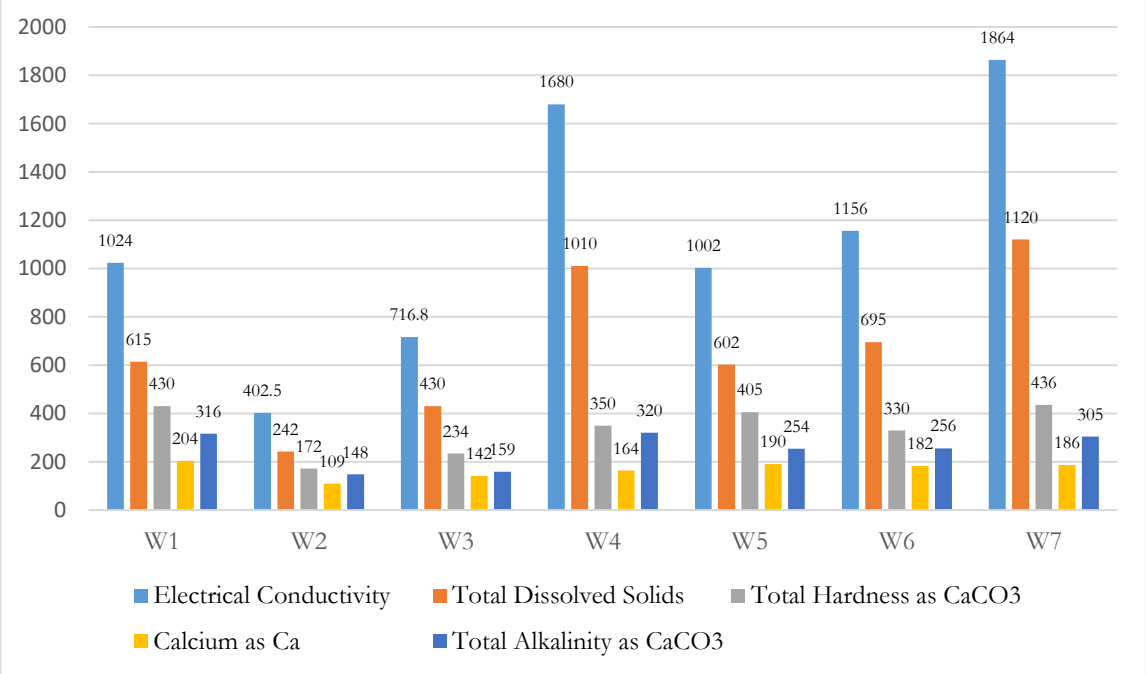
The samples were analyzed by Shrient Analytical & Research Labs Private Limited; Chennai and the results are summarized below.

Table 3.8 Results of Ground Water sampling Analysis in 7 locations								Standards as Per IS 10500: 2012	
Parameters	**W1**	**W2**	**W3**	**W4**	**W5**	**W6**	**W7**	**Acceptable Limits**	**Permissible Limits**
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1	<1	<1.0	<1	<1	<1	1	5
pH at 25 °C	7.36	7.88	6.96	7.41	7.32	7.56	7.38	6.5- 8.5	No Relaxation
Electrical Conductivity	1024	402.5	716.8	1680	1002	1156	1864	-	-
Total Dissolved Solids	615	242	430	1010	602	695	1120	500	2000
Total hardness as CaCO3	430	172	234	350	405	330	436	200	600
Calcium as Ca	81.6	43.6	56.8	65.6	76	72.8	74.4	75	200
Magnesium as Mg	54.2	15.1	22.1	44.6	51.6	35.5	60.0	30.0	100
Calcium as CaCO3	204	109	142	164.0	190	182	186	-	-
Magnesium as CaCO3	226	63	92	186	215	148	250	-	-
Total alkalinity as CaCO3	316	148	159	320	254	256	305	200	600
Chloride as Cl-	80.4	32.5	160	332	115	180	354	250	1000
Free Residual chlorine as Cl-	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL (D.L - 0.2)	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL (D.L-0.2)	0.2	1
Sulphates as SO42-	120	14.2	73.5	208	114	212	355	200	400
Iron as Fe	0.07	0.05	0.05	0.09	0.07	BDL (D.L - 0.01)	BDL (D.L - 0.01)	0.3	No Relaxation
Nitrate as NO3	2.45	BDL (D.L-1.0)	3.65	2.15	2.78	2.02	3.63	45	No Relaxation
Fluoride as F	0.34	0.25	0.27	0.38	0.27	0.56	0.64	1	1.5
Manganese as Mn	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L - 0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	0.1	0.3

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

FIG 3.16 VALUES OF FEW COMMON PARAMETERS IN WATER ANALYSIS





All the values were found to be within the permissible limits.

3.7.4 DISCUSSION

Surface Water

The pH varied from 7.72 to 7.89 while turbidity found within the standards (Optimal pH range for sustainable aquatic life is 6.5 to 8.5 pH). Total Dissolved Solids varied from 146 to 152 mg/l. Chloride varied between 138 mg/l and 142 mg/l. Nitrates were found to be below detectable limit, while sulphates varied from 15.6 to 18.9 mg/l.

Ground Water

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

As Per the data it has been observed that the pH value varies from 6.96 to 7.88, Chlorides Ranges From 32.5 - 354 mg/l, Sulphates value found to be between 14.2 - 355 mg/l, Fluoride Ranges low in lease area i.e. 0.25 – 0.64, Hardness varies from 172 – 436 mg/l, and Total dissolved solid 242 – 1120 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.

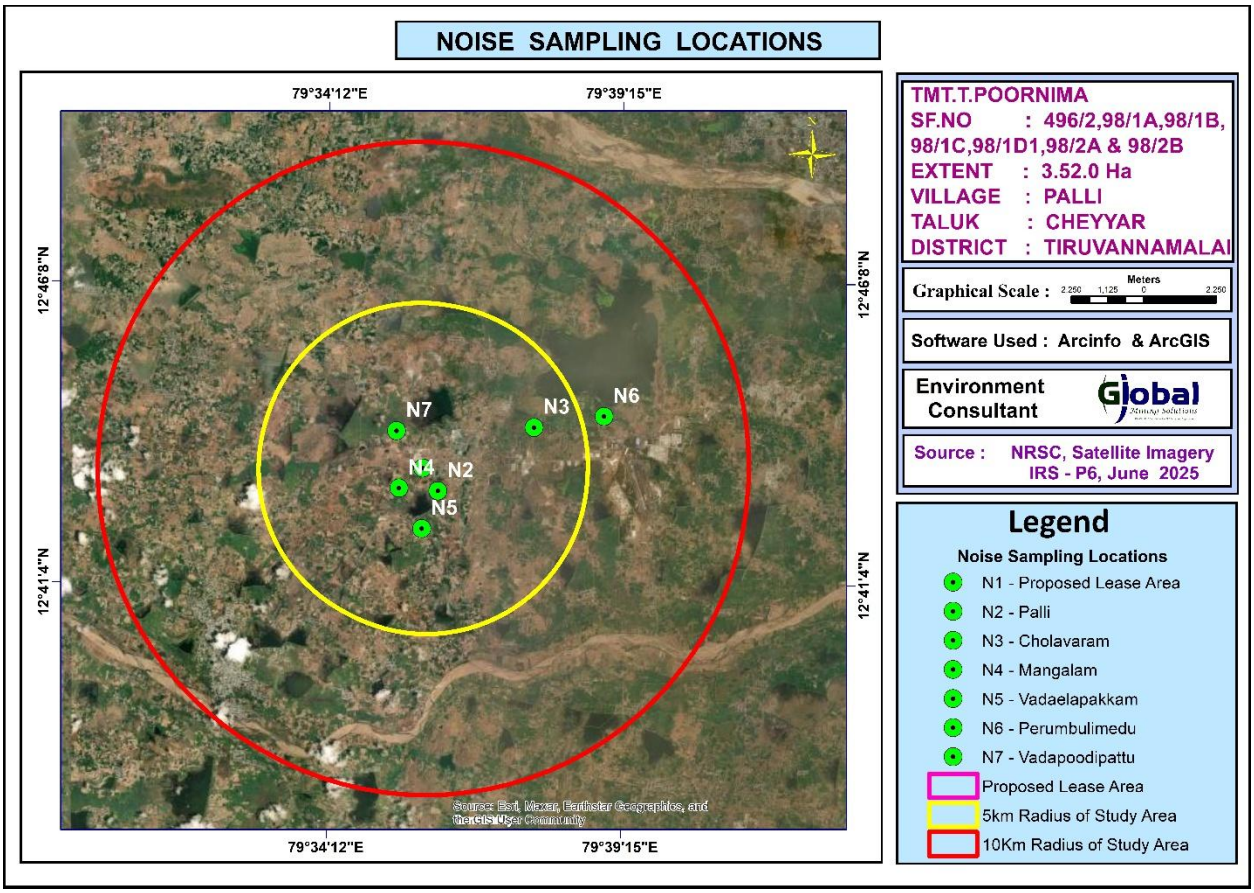
3.8 NOISE MONITORING

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 3.14

Code	Location	Latitude	Longitude
N1	Project Site	12°43'0.73"N	79°35'49.83"E
N2	Palli	12°42'37.79"N	79°36'5.59"E
N3	Cholavaram	12°43'42.39"N	79°37'43.72"E
N4	Mangalam	12°42'40.15"N	79°35'27.86"E
N5	Vadaelapakkam	12°41'59.98"N	79°35'48.74"E
N6	Perumbulimedu	12°43'51.40"N	79°38'56.61"E
N7	Vadapoondipattu	12°43'36.65"N	79°35'25.76"E

FIG 3.17 BASE MAP OF NOISE MONITORING LOCATIONS

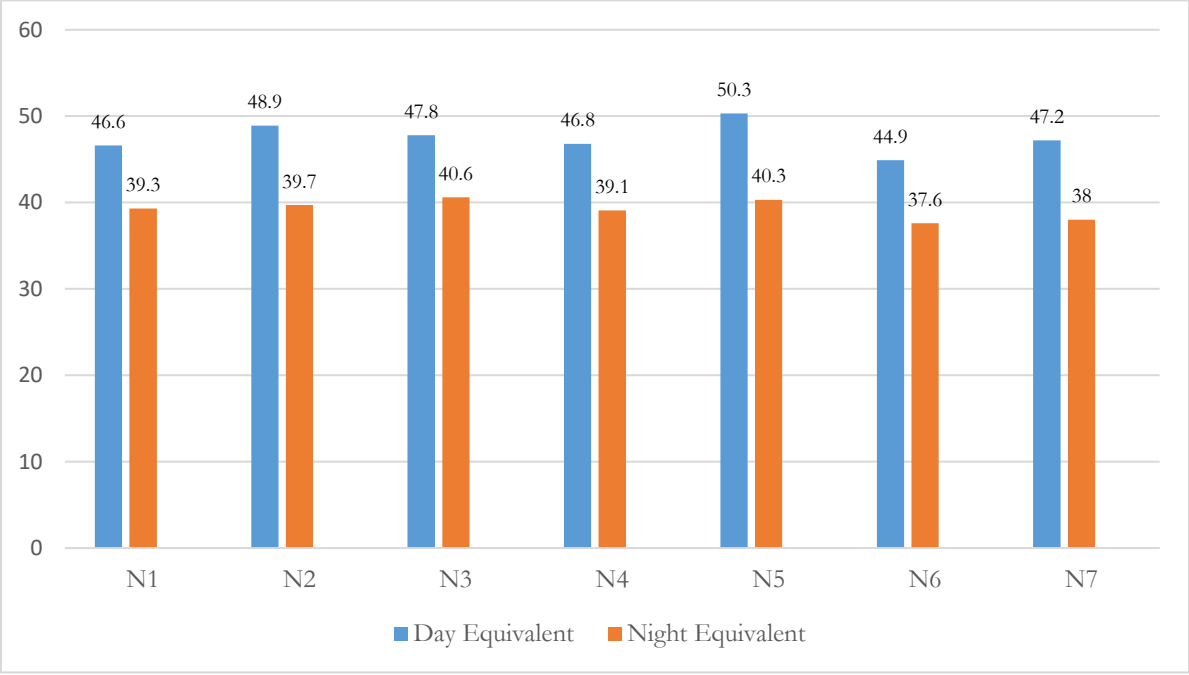


The results are given in Table below.

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	46.6	39.3	75	70
2	Palli	48.9	39.7	55	45
3	Cholavaram	47.8	40.6		
4	Mangalam	46.8	39.1		
5	Vadaelapakkam	50.3	40.3		
6	Perumbulimedu	44.9	37.6		
7	Vadapoondipattu	47.2	38.0		

The results are plotted as below.

FIG 3.18 DAY AND NIGHT EQUIVALENT VALUES IN 7 LOCATIONS



All the values are found to be within CPCB norms.

3.8.1 DISCUSSION

From the table it is observed that the day Equivalent Noise (Leq-d) level were ranging from 44.9 to 50.3 dB(A) and Night Equivalent Noise (Leq-n) level were ranging from

37.6 to 40.6 dB(A). Day and Night Equivalent Noise (Leq-n) level were ranging from 43.5 to 48.8 dB(A). While comparing with the MoEFCC Norm of 55 dB(A) for day time and 45 dB(A) for night time in Residential areas, the monitored ambient noise levels are within the limit values.

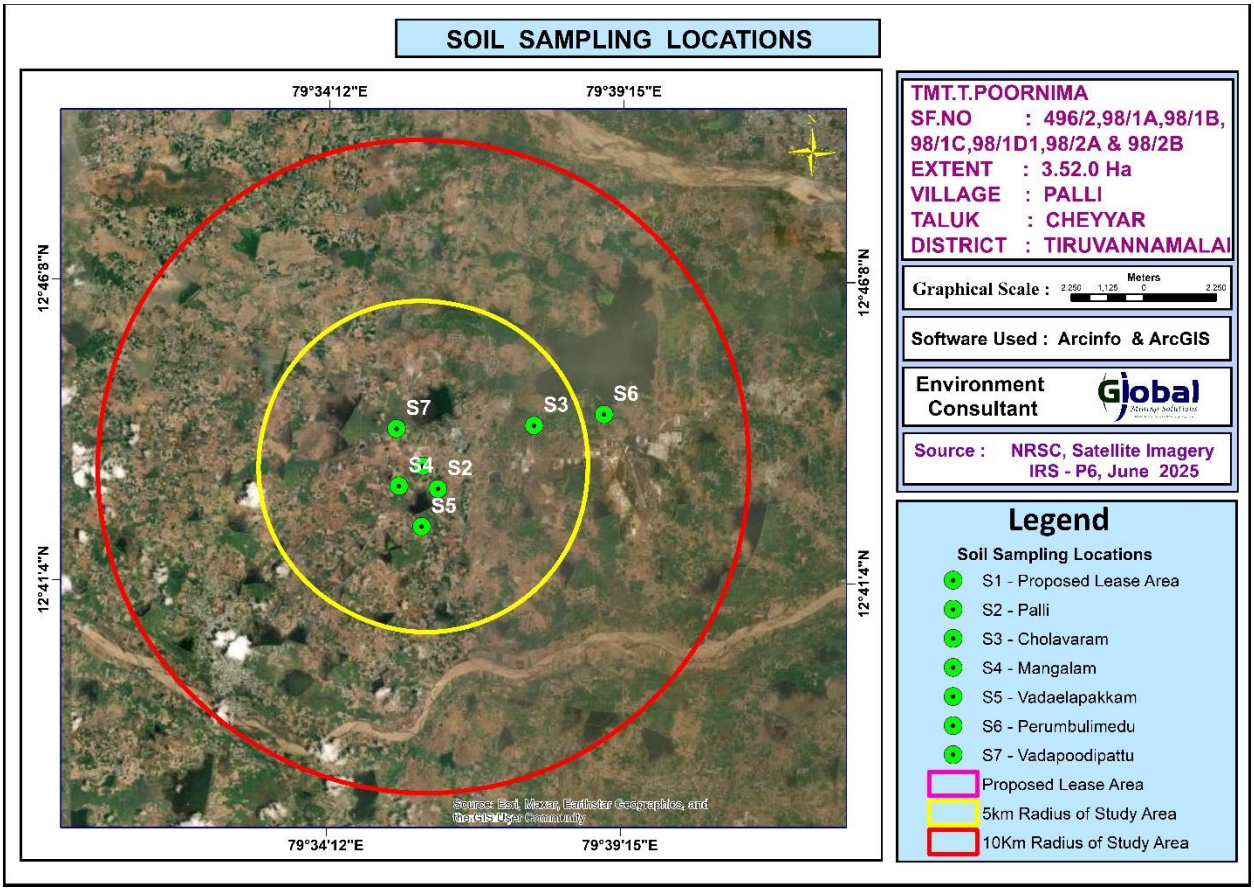
After commencement of mine operation the anticipated noise level will be 39.3 dB – 46.6 dB in the N1 location. (Project Site). It is very negligible and within the prescribed standards of MoEFCC and DGMS.

3.9 SOIL SAMPLING ANALYSIS

Soil samples have been collected from the mine lease area and 7 other locations from Palli, Cholavaram, Mangalam, Vadaelapakkam, Perumbulimedu and Vadapoondipattu Villages. The locations are shown in figure below.

Code	Location	Latitude	Longitude
S1	Project Site	12°43'0.73"N	79°35'49.83"E
S2	Palli	12°42'37.79"N	79°36'5.59"E
S3	Cholavaram	12°43'42.39"N	79°37'43.72"E
S4	Mangalam	12°42'40.15"N	79°35'27.86"E
S5	Vadaelapakkam	12°41'59.98"N	79°35'48.74"E
S6	Perumbulimedu	12°43'51.40"N	79°38'56.61"E
S7	Vadapoondipattu	12°43'36.65"N	79°35'25.76"E

FIG 3.19 BASE MAP OF SOIL SAMPLING LOCATIONS



The results are summarized in the table below.

Table 3.10 Results of Soil sampling Analysis in 7 locations

Parameters	S1	S2	S3	S4	S5	S6	S7	Unit
pH at 25 °C	6.92	6.87	6.95	7.01	7.44	6.92	7.86	-
Electrical Conductivity	78.73	46.65	60.97	42.58	132	48.95	59.58	µmhos/cm
Dry matter content	94.28	97.44	96.57	97.05	95.57	97.32	95.29	%
Water Content	5.72	2.56	3.43	2.95	4.43	2.68	4.71	%
Organic Matter	0.58	0.74	0.81	1.18	0.98	0.76	1.05	%
Soil texture	CLAY LOAM	loam	loam	loam	SANDY LOAM	loam	SILTY CLAY LOAM	-
Grain Size Distribution								
i. Sand	30.72	48.65	34.45	40.06	66.72	49.55	6.75	%

ii. Silt	42.34	31.66	45.49	36.55	23.76	31.69	62.09	%
iii. Clay	26.94	19.69	20.06	23.39	9.52	18.76	31.16	%
Phosphorous as P	1.27	1.65	1.22	2.1	1.98	1.24	1.23	mg/kg
Sodium as Na	552	432	389	423	475	432	796	mg/kg
Potassium as K	320	632	589	658	295	630	405	mg/kg
Total Nitrogen	205	145	182	232	164	149	302	mg/kg
Total Sulphur	BDL (D.L.0 .02)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	%
Water Holding Capacity	45	40	42	44	41	40	38	Inches/ foot
Porosity	19.7	20.7	22.2	24.1	20.9	22.6	20.5	%

3.9.1 DISCUSSION

Results of the soil samples show that the pH values were found to be 6.87 to 7.86 and Electrical Conductivity values were ranging between 42.58 – 132 µmhos/cm. Soils are generally Clay loam and Sand loam. Organic matter values were ranging between 0.58 – 1.18 %. Total Nitrogen values were ranging between 145 – 302 mg/kg. Phosphorus values were ranging between 1.22 – 2.1 µg/g. Potassium values were ranging between 295 – 632 mg/kg. Sodium values were ranging between 389 – 796 mg/kg. Total Sulphur values were observed to be BDL. The soil quality data for the 7 samples collected and analyzed are provided in Table no – 3.13.

3.10 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.

3.10.1 FLORA

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

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

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

3.10.1.1 FLORISTIC COMPOSITION IN CORE ZONE

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

S.No	Local Name	Scientific Name	Family Name	IUCN Conservation Status
Trees				
1	Kondrai	*Cassia fistula*	Caesalpiniaceae	Not Listed
2	Seetha	*Annona squamosa*	Annonaceae	Not Listed
3	Vembu	*Azadirachta Indica*	Meliaceae	Not Listed
4	Karuvelam	*Vachellia Nilotica*	Fabaceae	Not Listed
Shrubs				
1	Erukku	*Calotropis Gigantea*	Apocynaceae	Not Listed
2	Chundai	*Solanum torvum*	Solanaceae	Not Listed
3	Thuthi	*Abutilon Indicum*	Meliaceae	Not Listed
4	Unnichedi	*Lantana camara*	Verbenaceae	Not Listed

Herbs				
1	Kuppaimeni	*Acalypha indica*	Euphorbiaceae	Not Listed
2	Nelavembu	*Andrographis paniculata*	Acanthaceae	Not Listed
3	Kovakkai	*Trichosanthes Dioica*	Cucurbitaceae	Not Listed
4	Perandai	*Cissus Quadrangularis*	Vitaceae	Not Listed
5	Thumbai	*Leucas Aspera*	Lamiaceae	Not Listed

3.10.1.2 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 to May 2025 and there are no forest blocks within 1 km radius of the project site. The detailed ecological assessment of the study area has been carried out and are presented in below Table.

3.10.2 List of Flora

Taxonomically a total of 61 families have been recorded from the buffer area. Based on habitat classification of the enumerated plants the majority of species were Trees 27 and herbs 13 followed by Shrubs 12, climbers 6 and Grasses 3. Details of flora with the scientific name were mentioned in Table No. 3.11.

Table 3.11 List of Flora

S.No	Local Name	Scientific Name	Family Name
Trees			
1	Lemon	*Citrus limon*	Rutaceae
2	Krishna Fig	*Ficus benghalensis*	Moraceae
3	Karuvelam	*Acacia nilotica*	Fabaceae
4	chokla	*Agalaia elaeagnoidea*	Meliaceae
5	Vagai	*Albizia lebbeck*	Caesalpiniaceae
6	Seetha maram	*Annona Squamosa*	Annonaceae
7	kattu elumichai	*Atalantia monophyla*	Rutaceae
8	Vaeppa maram	*Azadirachta indica*	Meliaceae
9	vazhai	*Musa paradisiaca*	Musaceae

10	Guava	*Psidium gujava*	Myrtaceae
11	Karuvali	*Cassine glauca*	Celastraceae
12	Naruvizhi maram	*Cordia monoica*	Boraginaceae
13	Kattunochchi	*Debregaesia velutina*	Urticaceae
14	Neruppu Kondrai	*Delonix regia*	Minosaceae
15	Nagai	*Syzygium cumini*	Myrtaceae
16	mull kalyanamurungai	*Erythrina stricta*	Fabaceae
17	Kallichi	*Ficus microcarpa*	Moraceae
18	atti	*Ficus racemosa*	Moraceae
19	Kattarasu	*Ficus tomentosa*	Moraceae
20	Kambimaram	*Gardenia resinifera*	Rubiaceae
21	Kumalaa maram	*Gmelina arborea*	Verbenaceae
22	Tambachi	*Holoptelea integrifolia*	Ulmaceae
23	Kunnancholai	*Mallotus Philippensis*	Euphorbiaceae
24	Peyimurungai	*Moringa concanensis*	Moringaceae
25	Malaithekku	*Premna tomentosa*	Verbenaceae
26	Peymiratti	*Schefflera stellata*	Araliaceae
27	Thaan-dri kaai	*Terminalia bellirica*	*Bahera*
		Shrubs	
1	Seethaatthazhai	*Acalypha fruiticosa*	Euphorbiaceae
2	peyimarutti	*Anisomeles malabarica*	Lamiaceae
3	Barleria paniculata	*Barleria tomentosa*	Acanthaceae
4	Turatti	*Capparis divaricate*	Capparidaceae
5	Sirukilaa	*Carissa spinarum*	Apocynaceae
6	Kodikalai	*Carmona retusa*	Boraginaceae
7	Virali	*Dodonaea viscosa*	Sapindaceae
8	Manjal Thutthi	*Hibiscus vitifolia*	Malvaceae
9	Karuppu avuri	*Indigofera longiracemosa*	Fabaceae
10	Velimungil	*Justicia betonica*	Acanthaceae

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

3.10.3 LIST OF FAUNA

Some of the species belonging were observed in the buffer zone. Based on habitat classification the majority of species were 28 Aves, followed by 6 Reptiles, 7 Mammals, 5 Fishes and 10 Birds. The list of fauna within the study area is given in Table No – 3.12.

Table 3.12 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	Eryxjohni	Boidae	-
5	Indian Grey Mongoose	Herpestes edwardsii	Mongoose	IV
6	Field mouse	Rattus norvegicus	Murids	IV
7	Rusty spotted Cat	Felis rubiginosa	Felidae	IV
REPTILES				
1	Common Garden lizard	Calotes versicolor	Agamid lizards	IV
2	Rough tailed Sand boa	Gongylophis conicus	Boidae	IV
3	Indian Cobra	Naja naja	elapid snakes	II
4	Indian mud turtle	Lissemys punctate	Softshell turtles	IV
5	Common Green Snake	Passerita mycterizaris	Colubrid Snakes	IV
6	Common rat snake	Ptyas mucosus	Colubrid Snakes	II
BIRDS				
1	Grey Partridge	Francolinus pondicerianus	Phasianidae	IV
2	Indian Ring Dove	Streptopelia decaocto	Pigeons and doves	IV

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

The core zone of the area is Government 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.

3.11 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 Latitude : 12°42'55.87"N to 12°43'04.85"N and Longitude : 79°35'46.33"E to 79°35'54.15"E.

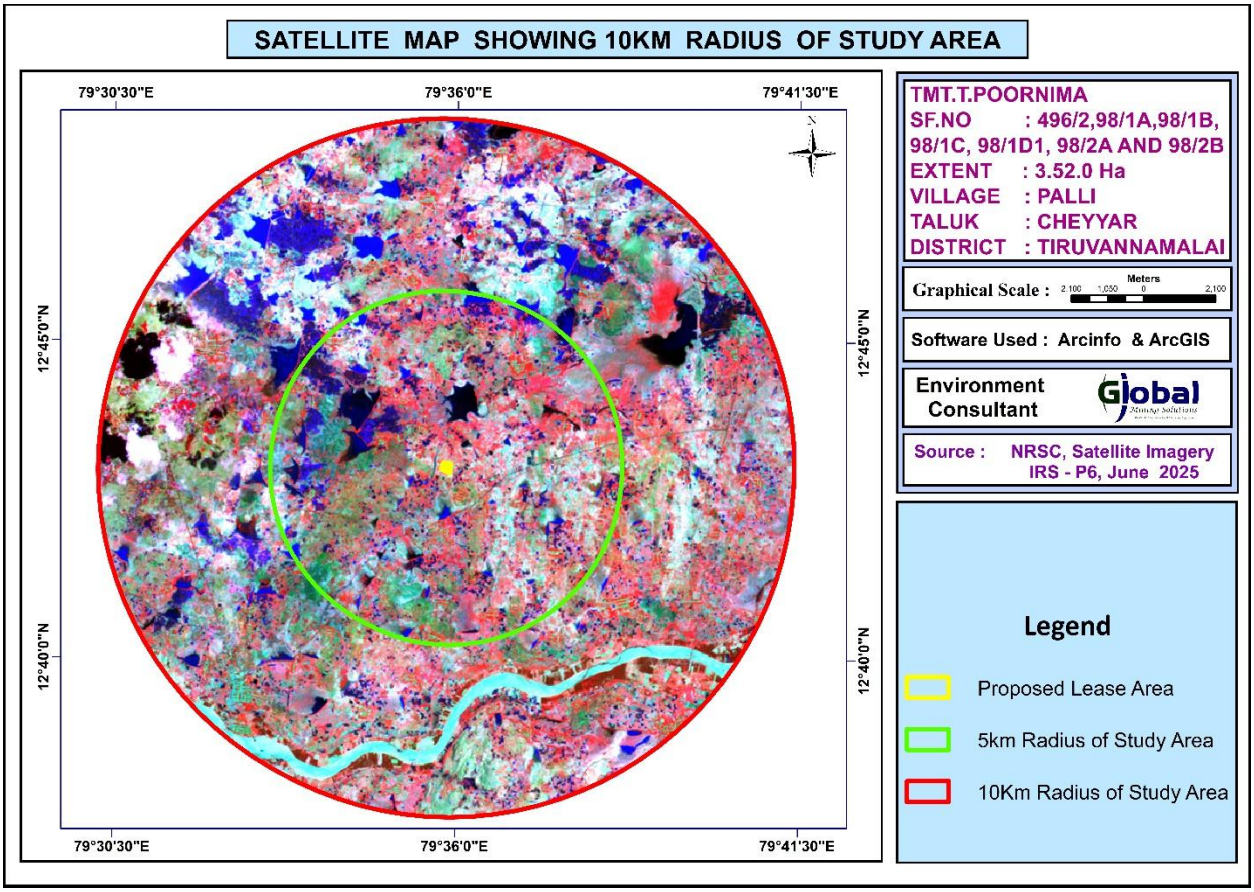


Figure No. 3.20 Remote Sensing Satellite Image

Selection of remote sensing satellite image (RSI) is on the availability of cloud free data and interpretability of predominant land use 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. 3.13 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.3.13 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

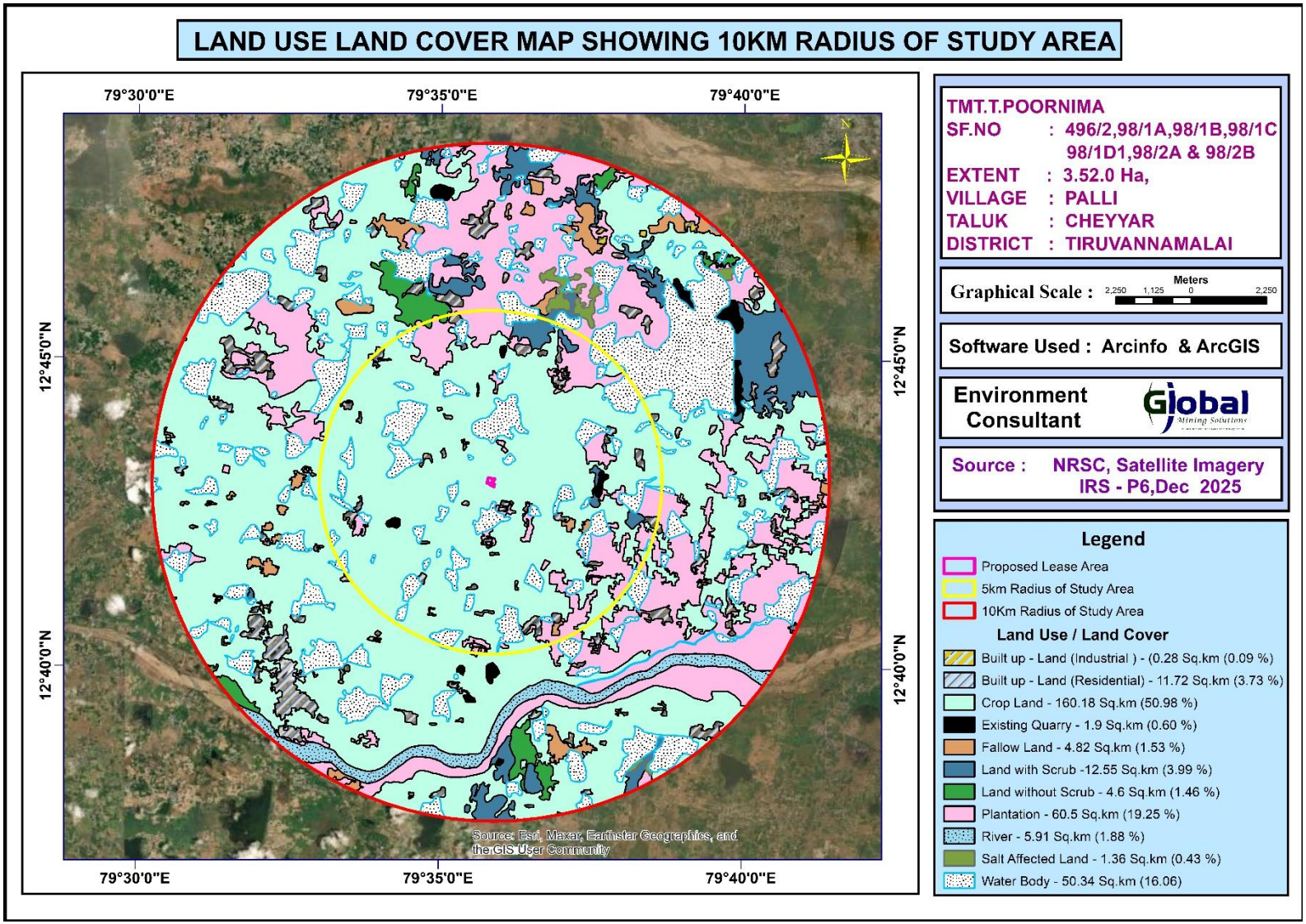
The existing land use pattern and land cover distribution of the whole acquired block, have been studied from the satellite imagery and subsequent ground checking during the field surveys.

It mainly comprises of agricultural land with bi-annual crops of Kharif (Kharif: Jowar, Bajra, Cotton, etc. Season: July to October) and Rabi (Rabi: Wheat, Rai etc. Season: December to March). The presence of the agricultural land is followed by few dense settlements Palli village natural or man-made pond etc. The shortage of rainfall, availability of ground water at deeper level and other climatic condition do not support

good agricultural productivity inspite of having enough land. There is no demarcated forest land within the study area, however, some scattered forest is found throughout the 10 km radius, especially along the periphery of the villages.

The general landuse pattern of the core and buffer may be broadly classified into four major types – Buildup or habitation, Agriculture, Water Bodies, Waste land and Other categories. Under buildup or habitation category covered villages, town and infrastructure. Under agriculture category considered crop land/fallow land and plantation. Under the water body categories Reservoir/ lake, pond, River and stream. Under wasteland category considered land with scrub and land without scrub is interpreted. Lastly other category's covered Mines area and forest are interpreted under this category. These categories are delineated from the selected satellite image using image elements such as color, tone, texture, size, shape and associated elements. The delineated land use units are transformed into a spatial database in GIS environment. Estimated for area and representation of each category in the study area. The total area of LULC in the study area is calculated as 314.16 sq. km and spatial distribution of various LULC categories within buffer area are discussed below. The 5km and 10km radius land use map is shown above. The details are given below.

FIG 3.21 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.

Built-up / Settlements

Settlements in the study area are generally small to medium size in stature and area scattered. Cheyyar is the relatively larger settlements observed at the north part of the study area.

Interpretation of settlement from the satellite image is based upon the image elements such as color, tone, texture and association. It is delineated by their typical red color. Association with linear features such as roads reaffirmed the presence of delineation of settlements. The spatial extent of settlement is estimated as 0.28 sq. km (Industrial) representing 0.09 % and the spatial extent of settlement is estimated as 11.72 sq. km (Residential) representing 3.73 % of the study area.

Agricultural Land

Under the broad category of agriculture crop land, fallow land and plantation is delineated. Cultivation is mostly dependent upon river water for irrigational activities are good. River, Ponds and tanks in each village act as rainwater storage units and do support domestic requirement and even cultivation to some extent. Because of these conditions, minimal water requiring crops such as corn, sunflower, oil seeds, grams, millets and coriander are cultivated. Cultivation is the most predominant crop cultivated and even if it failed their stalks are used as fodder for cattle.

Crop and Fallow land are interpreted using their image elements such as light to green, smooth to medium tone, they are the second most predominant land use category delineated in the buffer area. As explained earlier, cultivation mostly depends upon river, canal and rainfall and majority of the land parcels are tilled and

ready for cultivation with even a scanty Canal. Hence, cropland is the predominant category estimated at 160.18 Sq.km representing 50.98 % of the buffer area.

Wasteland

The last category of the land use units in the study area is "Wasteland" which denotes land parcels that could not be utilized for cultivation even after conservation measures – such as land with scrub, land without scrub area.

Next to agricultural area, natural vegetation such as land with scrub forms the predominant LULC category of the buffer area. Land with scrub is sparse and delineated as patches scattered in all the parts of the buffer area. The spatial pattern of scrub suggests it is closely associated with water courses. This category occupies land with scrub an area of 12.55 sq.km representing 3.99 % of the total core and buffer area.

Land without scrub, on the other hand is interpreted using brown to white color, medium tone and medium texture and is generally restricted around land covered with scrub and fallow land. They occur as small patches and very minimal area covering 4.6 sq.km representing 1.46 % of the buffer area.

Water bodies

Many Streams small and big water bodies are seen in the study area distributed all over the study area. They support the domestic water requirements and for cattle. At some places, they may also use for irrigation purpose and are very limited. Few dry stream courses are also seen in the study area. In the satellite image, water bodies are interpreted by their light blue to greyish blue color, smooth tone and smooth texture.

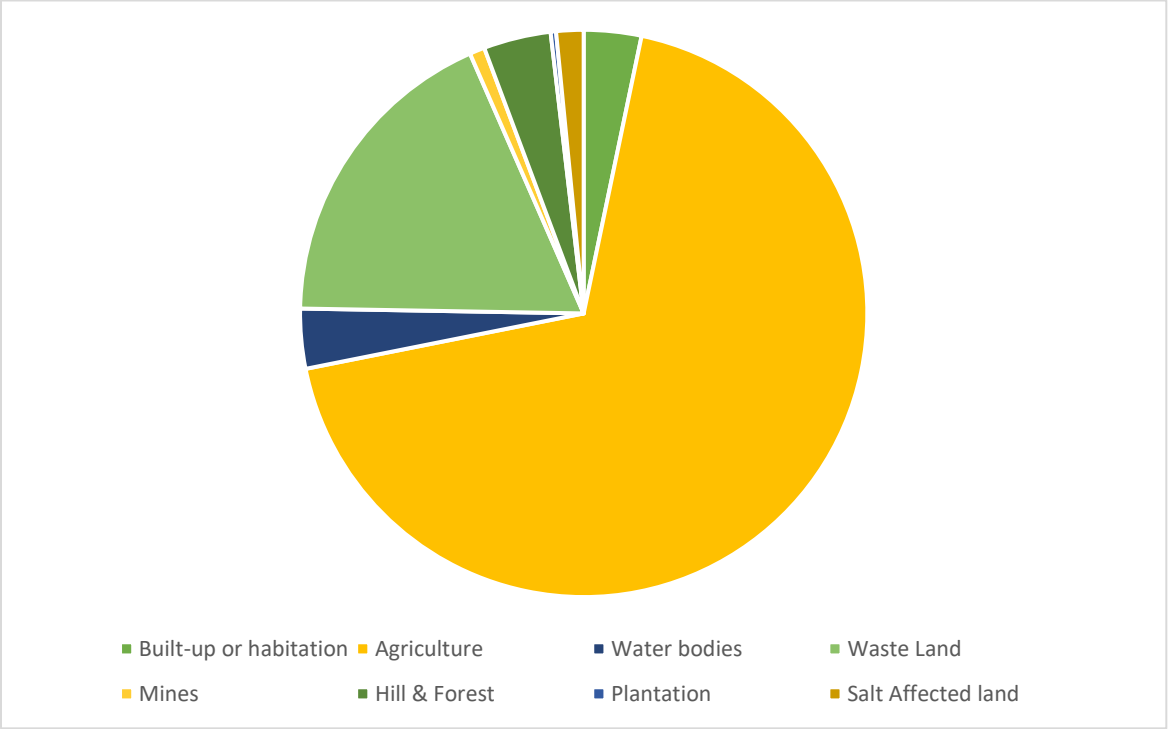
Most of the water bodies retain water for a shorter period after precipitation due to the soil constraint and hence go dry soon. Spatial extent of rivers, stream and water bodies is estimated at 50.34 sq.km and 16.06 %.

Mining area

Mining area seen in the study area distributed all over the study area. Major domestic income from mining business. Spatial extent of mining is estimated at 1.9 sq.km 0.60 %.

Table No. 3.14 Major Land Use Units of the Study Area in Percentage

S. No	1st Level Classification	Area in (sq.km)	Percentage (%)	2nd Level Classification	Area in (sq.km)	Percentage (%)
1	Built-up or habitation	12.0	3.82	Residential	11.72	3.73
				Commercial/Industrial	0.28	0.09
2	Agriculture	165.0	52.51	Crop land	160.18	50.98
				fallow land	4.82	1.53
3	Water bodies	56.25	17.94	Reservoir/Lake /Pond	50.34	16.06
				River/Stream	5.91	1.88
4	Waste Land	17.15	5.42	Open without scrub	4.6	1.46
				Open with scrub	12.55	3.99
5	Mines	1.9	0.60	Mines	1.9	0.60
6	Plantation	60.5	19.25	Plantation	60.5	19.25
7	Salt Affected land	1.36	0.43	Salt Affected land	1.36	0.43
Total		**314.16**	**100**		**314.16**	**100**



3.12 SOCIOECONOMIC ENVIRONMENT

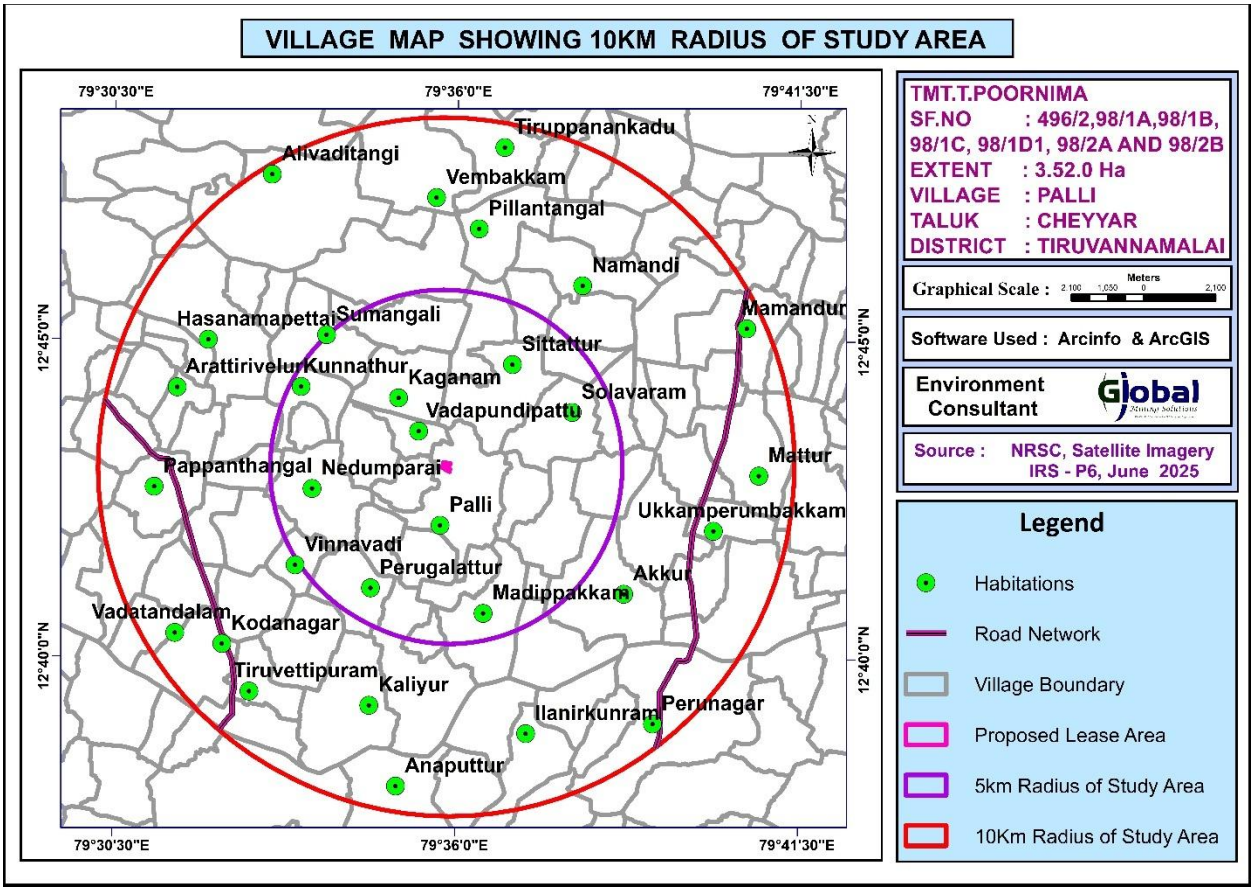
The socio-economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used. The following data area collected from secondary data:

- Demographic pattern.
- Health pattern
- Occupational structure.

3.12.1 DETAILS OF VILLAGES

The profile of the villages located in the study area is given in Fig 3.19 below.

FIG 3.22 VILLAGE MAP OF THE STUDY AREA



3.12.2 DETAILS OF VILLAGES

The project is located in Cheyyar Taluk, Tiruvannamalai District. The total population is 2,464,875 which comprise of 1,235,889 males and 1,228,986 females. There are 32 villages in the study area. List of villages are given below.

Table 3.15 Village Details in study area

S.No.	Village/Town Name	Radius	Taluk Name	District Name
1	Vadapundipattu	0-5 km	Cheyyar	Tiruvannamalai
2	Pallai			
3	Vinnavadi			
4	Perugalattur			
5	Madipakkam			
6	Nedumparai			
7	Kaganam			
8	Kunnathur			

9	Sittattur			
10	Sumangali			
11	Solavaram			
12	Mettur	5-10 km		
13	Uakkanperubakkam			
14	Akkur			
15	Perunagar			
16	Ilanikunram			
17	Annaputtur			
18	Kaliyur			
19	Tiruvettipuram			
20	Kodangar			
21	Vadatandalam			
22	Rappanthangal			
23	Arattirivelur			
24	Hasanamapettai			
25	Allvaditangal			
26	Vembakkam			
27	Pillantangal			
28	Tiruppanankadu			
29	Namandi			
30	Mamandur			

The above table shows that the male and female population ratio.

Table 3.16 Population profile of the study area

Particulars	No of Population	Percentage (%)
A. Population break-up by Gender		
Male Population	1,235,889	50.14
Female Population	1,228,986	49.86
Total	**24,64,875**	**100**
B. Population break-up by Caste		
Scheduled Caste	565,329	22.93
Scheduled Tribes	90,954	3.69
Others	18,08,592	73.38
Total	**24,64,875**	**100**
C. Literacy Level		

Total Literate Population	1,626,813	66.0
Others	8,38,062	34.0
Total	**24,64,875**	**100**
D. Occupational structure		
Main workers	970,072	78.35
Marginal workers	268,105	21.65
Total Workers	**12,38,177**	**100**
Total Workers	12,38,177	50.23
Total Non-workers	12,26,698	49.77
Total	**24,64,875**	**100**

Table 3.17 Population profile – Palli Village

Particulars	No of Population	Percentage (%)
A. Population break-up by Gender		
Male Population	1348	49.52
Female Population	1374	50.48
Total	2,722	100
B. Population break-up by Caste		
Scheduled Caste	1165	42.79
Scheduled Tribes	39	1.44
Others	1,518	55.77
Total	**2722**	**100**
C. Literacy Level		
Total Literate Population	1831	67.27
Others	891	32.73
Total	**2722**	**100**

D. Occupational structure		
Main workers	987	60.40
Marginal workers	647	39.60
Total Workers	**1634**	**100**
Total Workers	1634	60.02
Total Non-workers	1088	39.98
Total	**2,722**	**100**

3.12.3 INFRASTRUCTURE FACILITIES IN THE STUDY AREA

Education

Table 3.18 Educational infrastructure -10 km radius from proposed mine lease

S. No.	Particulars	Available in village (Nos)
1	Govt. Primary School	25
2	Govt. Middle School	12
3	Govt. Secondary School	27
4	Govt. Senior Secondary School	36
5	Govt. Arts and Science Degree College	4
6	Govt. Engineering College	4
7	Govt. Medicine College	1
8	Govt. Management Institute	0
9	Govt. Polytechnic	0
10	Govt. Vocational Training School/ITI	0

In the study area, there are totally 25 Primary Schools functioning in these 30 urban areas. Among them 30 villages have 25 primary school, 12 Middle schools & 27 Secondary school.

Healthcare

In the study area, the following facilities are available.

Table 3.19 Medical Infrastructure-10 km radius from proposed mine lease		
S.No.	**Particulars**	**Available in village (Nos)**
1	Community Health Centre	17
2	Primary Health Centre	38
3	Primary Health Sub Centre	52
4	Maternity and Child Welfare Centre	18
5	TB Clinic	0
6	Hospital Allopathic	0

Other Infrastructure

The other infrastructure facilities available are given below.

Table 3.20 Other Infrastructure-10 km radius from proposed mine lease		
S.No.	**Particulars**	**Available in village**
1	Tap Water-Treated	24
2	Covered Well	27
3	Hand Pump	27
4	Tube Wells/Borehole	23
5	Post office	39
6	Public bus services	22
7	Commercial Bank	38
8	Cooperative bank	36

Sample Survey

The expert visited villages in the study area namely Palli, Cholvaram, Mangalam, Vadaelapakkam, Perumbulimedu, and Vadapoondipattu Villages. Discussions were held with the people from nearby locality to study the social and economic conditions prevailing in the area. The expert also visited nearby hospitals and primary health centres. The following observations were made.

Primary schools are available in many villages. For hospital facilities, people in the locality have to go to hospital in Cheyyar which is about 2 - 5 km (SE) from the lease area. Major schools with higher secondary and senior secondary schools are located in Palli. The major Palli Union located in the area is Palli. Facilities like petrol pump stations, ATM facility are available in Palli.

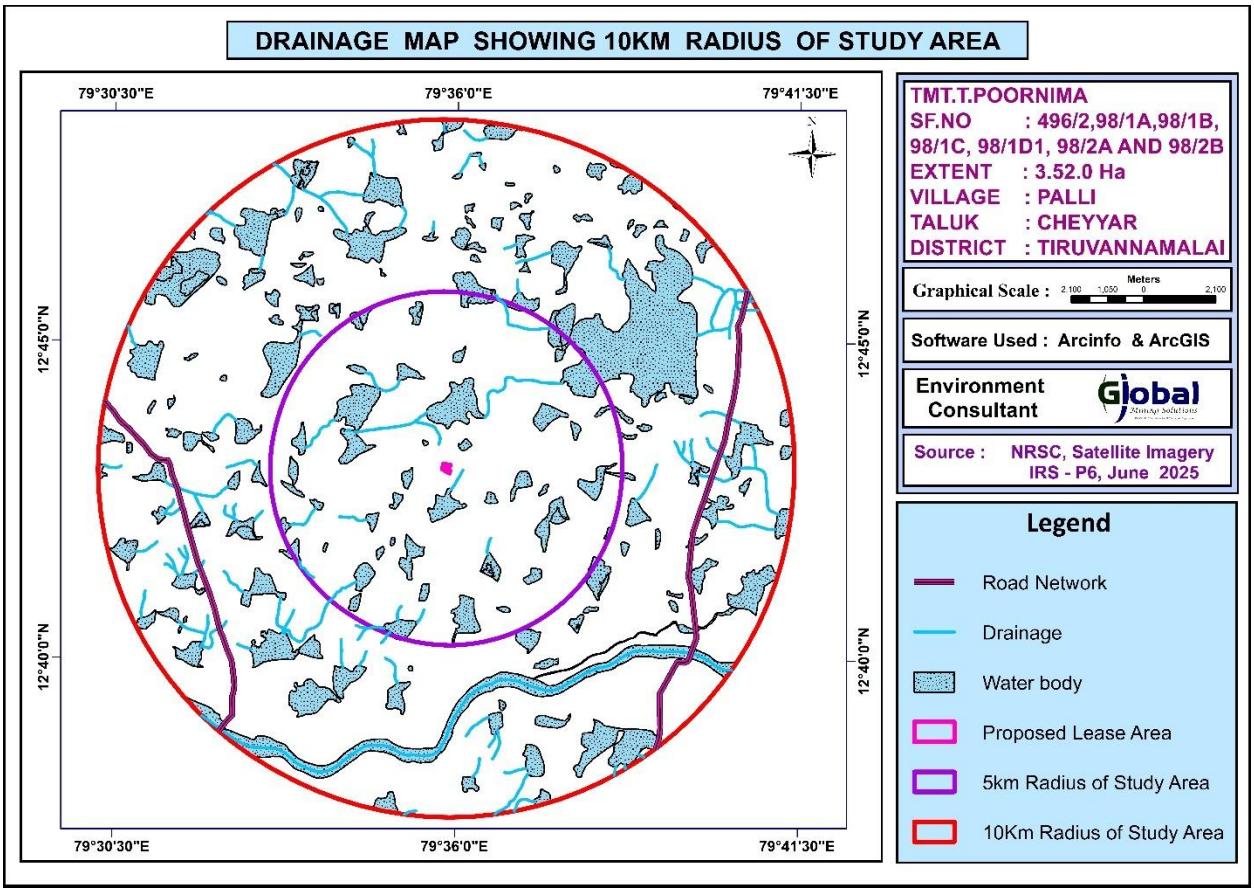
3.13 HYDROGEOLOGY OF THE STUDY AREA

The hydrological and hydrogeological pattern of the study area is studied in detail using satellite imagery.

3.13.1 HYDROGEOLOGICAL STUDY

To assess the hydrogeological condition of the surrounding proposed mine lease area. The study area is located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State is considered to understand the nature of the general hydrogeological conditions of the surrounding proposed mine lease area.

FIGURE 3. 23 10 KILOMETER RADIUS OF THE DRAINAGE MAP



3.13.2 PHYSIOGRAPHY AND DRAINAGE

Physiography: The area applied for quarry lease is exhibits almost plain topography covered by Gravel formation. The massive Charnockite formation is noticed below 2m (avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 118m (maximum) from MSL.

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 3.20. the major water bodies in buffer zone are Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (SW).

3.13.3 GEOLOGY, GEOMORPHOLOGY AND SOIL

Geology: Tiruvannamalai District mainly comprises of rocks of Archaeon age. The type of rocks found in the district are Charnockite, Granitic gneiss, Epidote Hornblende Gneiss, Amphibolite, Pyroxenite, Dunite, Migmatites, Banded Magnetite Quartzite, Shale and Clay. Dolerite dykes (Black Granite) are also noticed cutting across the country rocks.

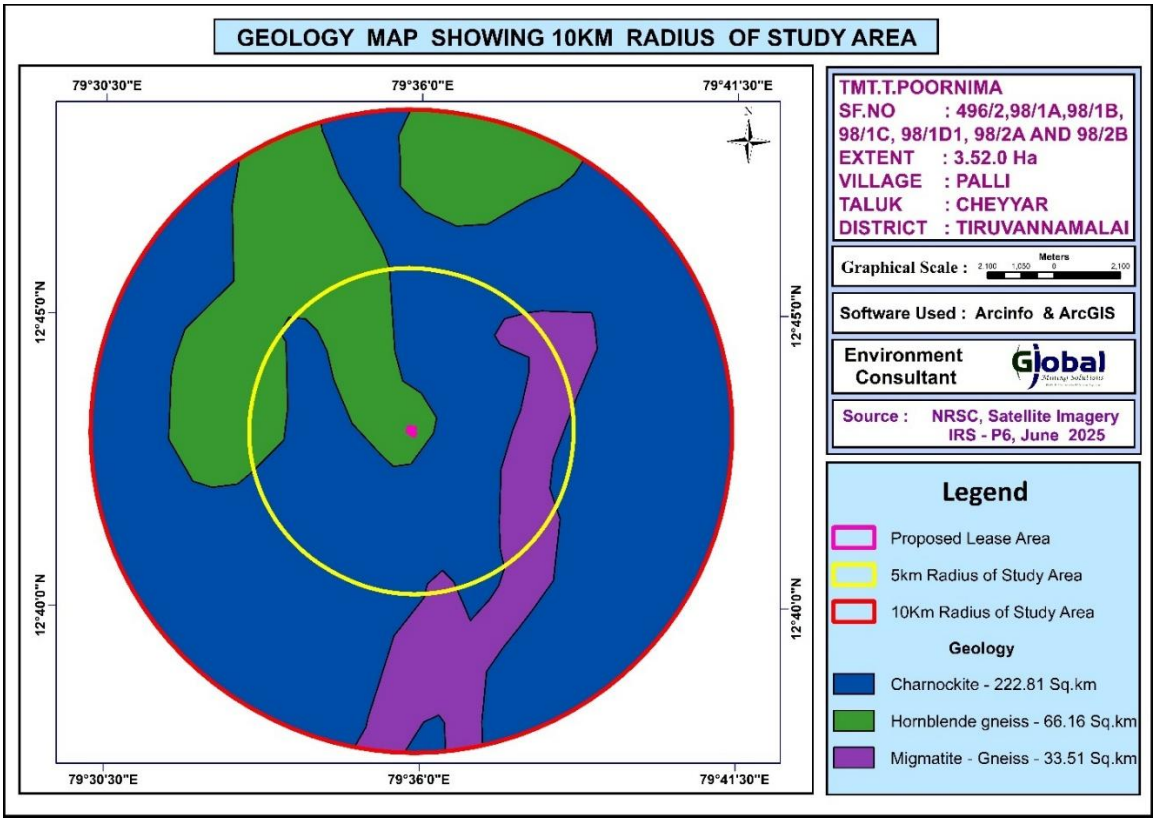
The hard rock terrain comprises predominantly of Charnockite and Khondalite groups and their migmatitic derivatives, supra-crustal sequences of Sathyamangalam and Kolar groups and Peninsular Gneissic Complex (Bhavani Group), intruded by ultramafic-mafic complexes, basic dykes, granites and syenites. The sedimentary rocks of the coastal belt include fluviatile, fluvio-marine and marine sequences, such as Gondwana Supergroup (Carboniferous to Permian and Upper Jurassic to Lower Cretaceous), marine sediments of Cauvery basin (Lower Cretaceous to Paleogene), Cuddalore /Pannambarai Formation (Mio Pliocene) and sediments of Quaternary and Recent age.

The Charnockite Group comprises pyroxene granulite and charnockite. The pyroxene granulite is dark grey, medium grained granulitic rock with typical salt and pepper texture, seen on the weathered surface. It consists of diopside, hypersthene,

plagioclase, hornblende, biotite and quartz. Charnockite is the predominant rock in the area. It is grey, medium to coarse grained, greasy looking with foliation seen prominently on the weathered surface. It is essentially made of smoky or grey quartz, pale grey microcline and hypersthene as major minerals with plagioclase, hornblende and biotite as accessories.

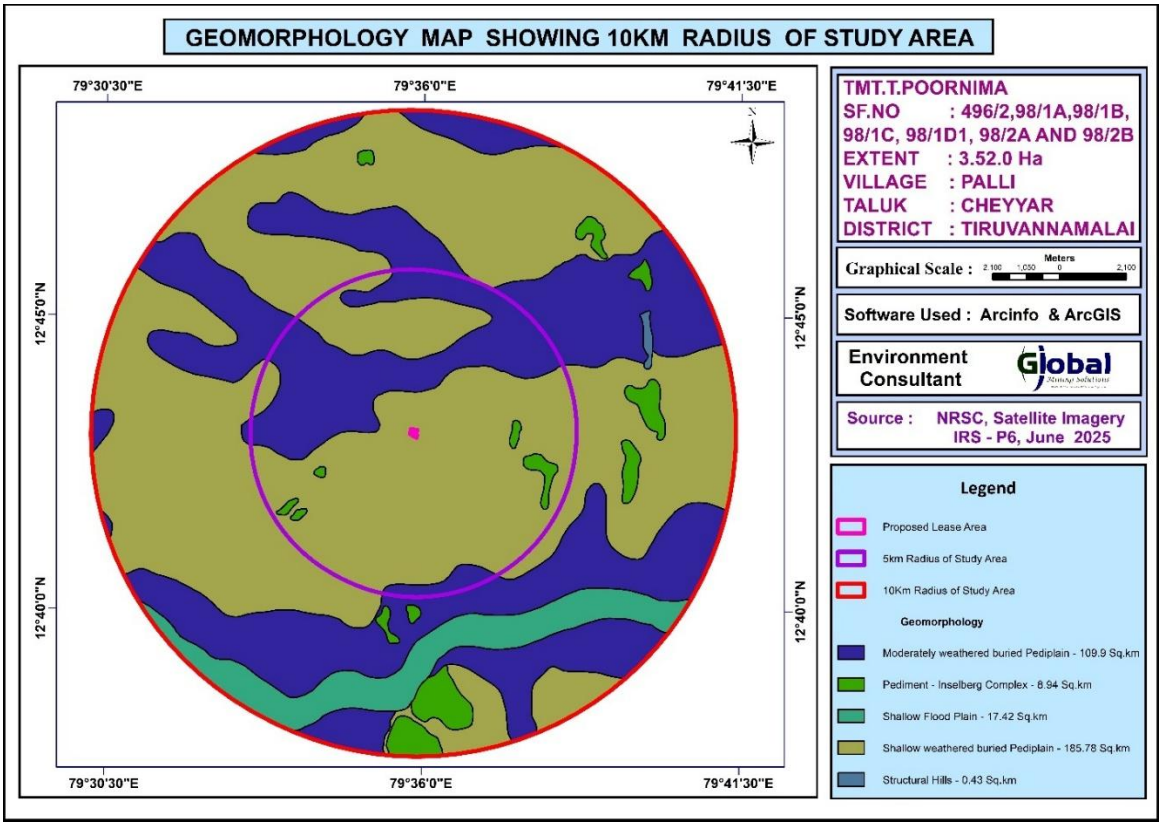
Migmatite Complex is represented by hornblende-biotite gneiss, granitic gneiss and pink migmatite. This Complex is a group of banded felsic rocks of varying mineralogical composition that are formed due to the influx of quartzofeldspathic material into high grade metamorphic rocks. Two types of migmatite are seen in the district, one is grey and the other is pink. Next to charnockite, migmatite gneiss is the second most extensive rock. The migmatite gneiss consists of quartz, k- feldspar, plagioclase, hornblende and biotite in varying proportions. Geology map for the 10 Km radius from the proposed project site is given as Figure 2.6.

FIGURE 3. 24 10 KILOMETER RADIUS OF THE GEOLOGY MAP



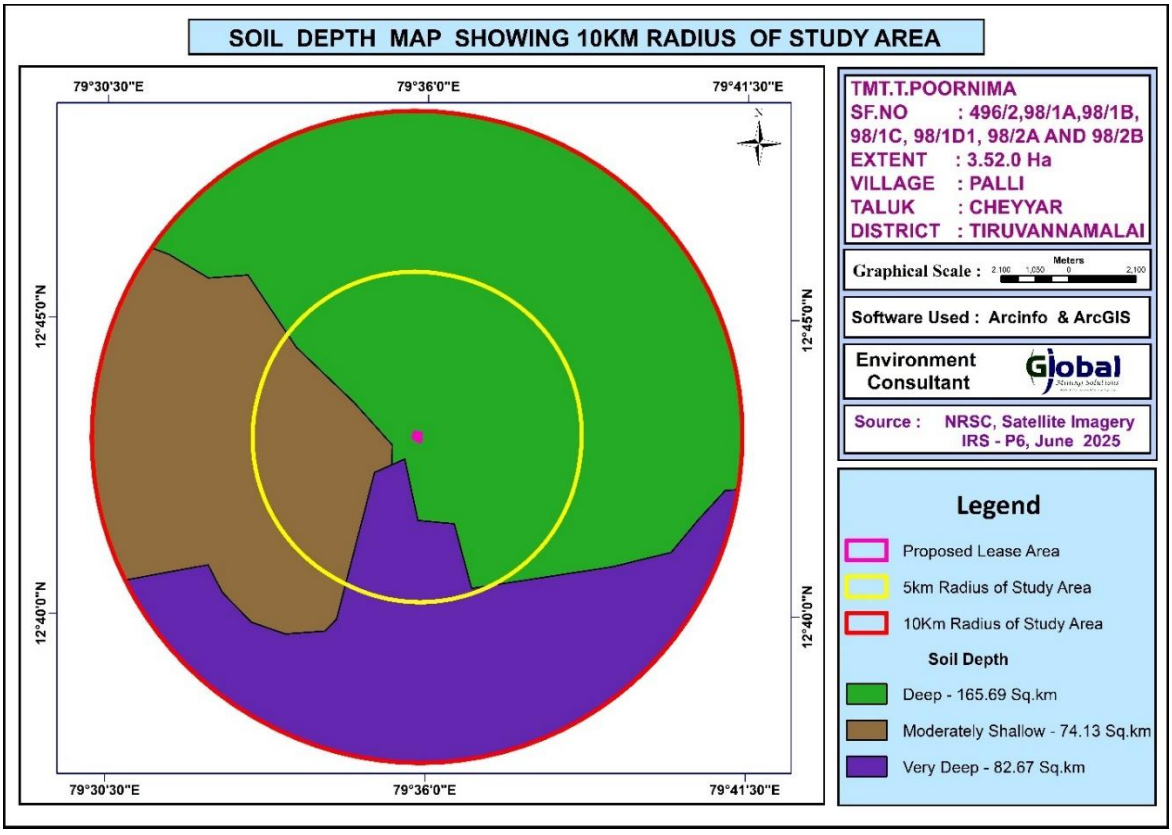
Geomorphology: The Core and 10 Km buffered zone geomorphological features (Figure 3.24) shows that the district is pediment pediplain complex, western, southern and eastern part of the district are covered by moderately dissected denudational hills & valley. The area is falls under moderately dissected structural hills & valley. The water bodies are through the district. The most of the lineament are trending in SE direction, while geomorphic lineaments are trending in S-E direction. The study area falls Moderately denudational hills and valleys, Pediment pediplain complex, moderately dissected structural hills and valleys, low dissected structural hill and valleys. Predominantly the buffer zone is dominated by Shallow Weathered buried Pediplain, and the lease area falls under Pediment - Inselberg Complex. Geomorphology of the study area is detailed below figure.

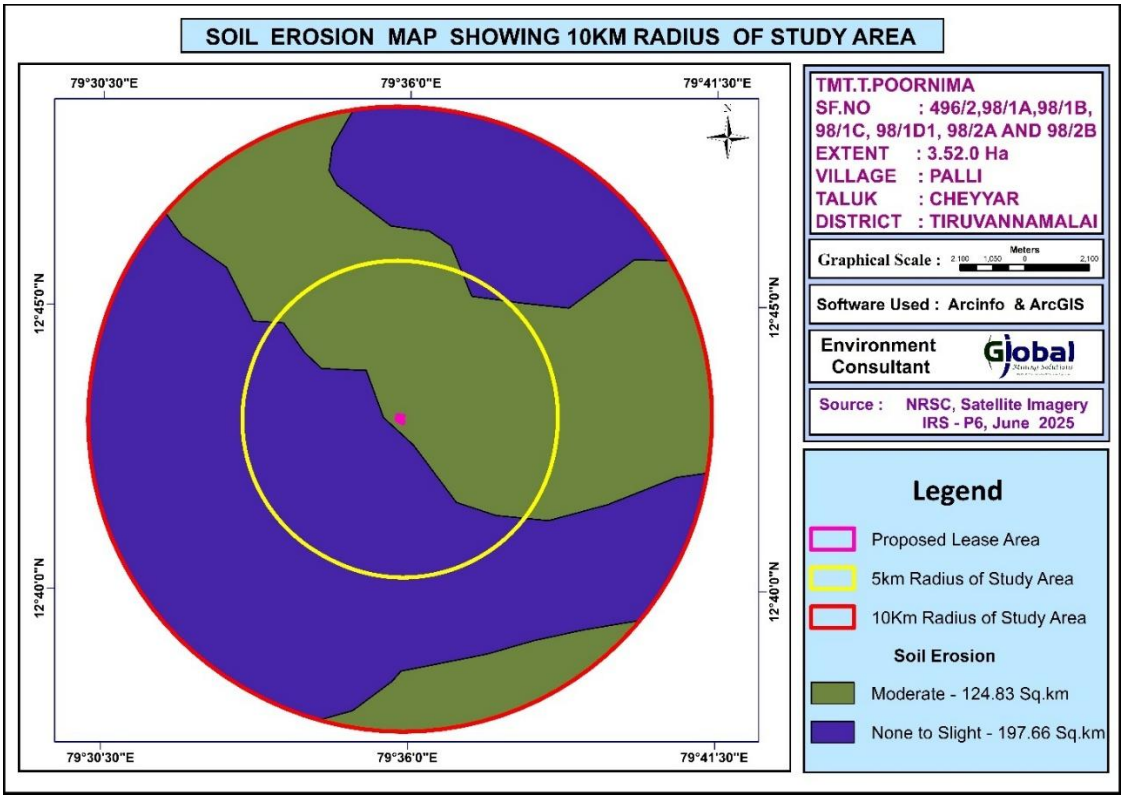
FIGURE 3. 25 10 KM RADIUS OF THE STUDY AREA GEOMORPHOLOGY MAP

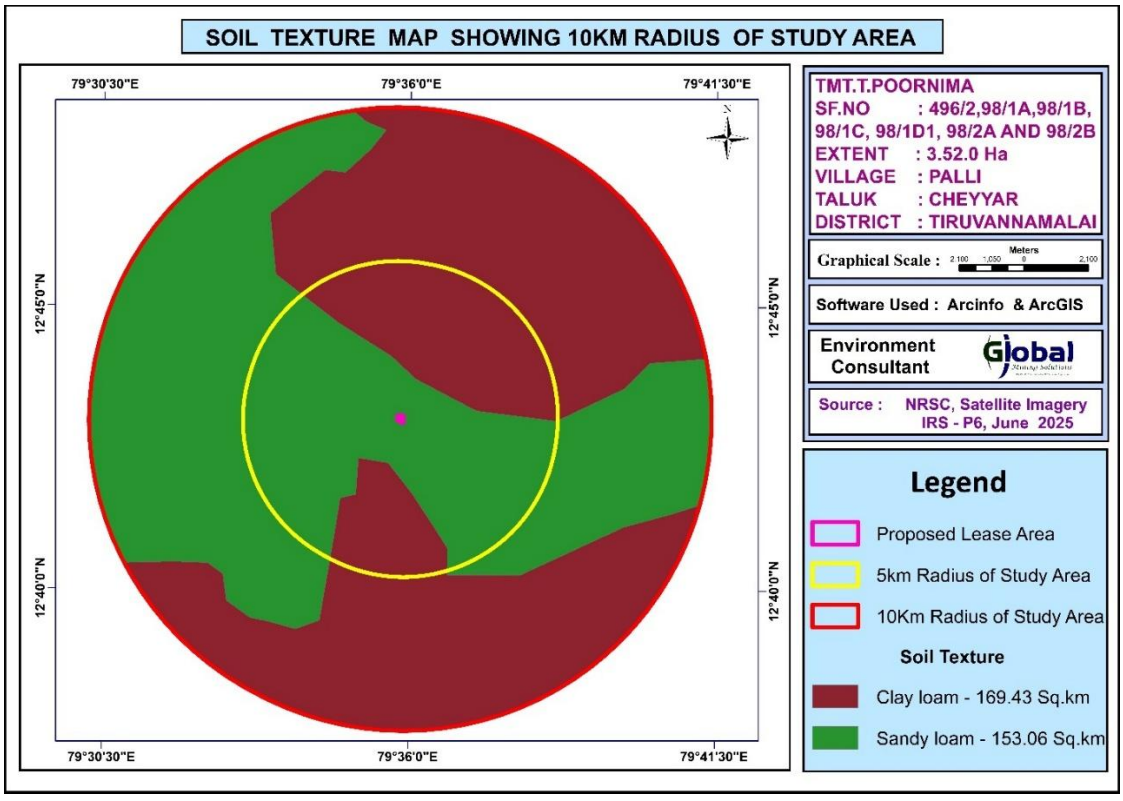


Soil: The soil developed in and around is moderately deep excessively drained, gravelly clay soil on hills, whereas, on SE part of the district, shallow, well drained, gravely clay soil on gently sloping lands. The soil developed deep drained, calcareous clayey soil on gently sloping low lands. The soil develops on isolated patch at SE of Palli is moderately deep, excessively drained, gravelly loam soil high hills.

FIGURE 3.26 10 KM RADIUS OF THE STUDY AREA SOIL TYPE MAP




SOIL EROSION MAP SHOWING 10KM RADIUS OF STUDY AREA
79°30'30"E
79°36'0"E
79°41'30"E
12°45'0"N
12°40'0"N
TMT.T.POORNIMA
SF.NO : 496/2,98/1A,98/1B, 98/1C, 98/1D1, 98/2A AND 98/2B
EXTENT : 3.52.0 Ha
VILLAGE : PALLI
TALUK : CHEYYAR
DISTRICT : TIRUVANNAMALAI
Graphical Scale :
Meters
Software Used : Arcinfo & ArcGIS
Environment Consultant
Global
Source : NRSC, Satellite Imagery IRS - P6, June 2025
Legend
Proposed Lease Area
5km Radius of Study Area
10Km Radius of Study Area
Soil Erosion
Moderate - 124.83 Sq.km
None to Slight - 197.66 Sq.km


SOIL TEXTURE MAP SHOWING 10KM RADIUS OF STUDY AREA
79°30'30"E
79°36'0"E
79°41'30"E
12°45'0"N
12°40'0"N
TMT.T.POORNIMA
SF.NO : 496/2,98/1A,98/1B, 98/1C, 98/1D1, 98/2A AND 98/2B
EXTENT : 3.52.0 Ha
VILLAGE : PALLI
TALUK : CHEYYAR
DISTRICT : TIRUVANNAMALAI
Graphical Scale :
Meters
Software Used : Arcinfo & ArcGIS
Environment Consultant
Global
Source : NRSC, Satellite Imagery IRS - P6, June 2025
Legend
Proposed Lease Area
5km Radius of Study Area
10Km Radius of Study Area
Soil Texture
Clay loam - 169.43 Sq.km
Sandy loam - 153.06 Sq.km

3.13.4 FIELD INVESTIGATION

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 is 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

4.1 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

4.2 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.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai 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 7,42,225 m^3 of Rough Stone and 57976 m3 of Gravel for the period of 5 years up to a depth of 52 m BGL 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 Patta Land. The project area of 3.52.0 Ha all along the boundary barrier except in East direction. It is proposed to be altered by effective quarrying operation such as excavation (2.70.5 Ha), Infrastructure (0.01.0), Road (0.01.0 Ha) and green belt will be developed in the safety zone of 0.78.5 Ha. The ultimate depth of quarrying is proposed with maximum depth of 52 m BGL and will not intersect the ground water table.

4.3 MEASURES FOR MINIMIZING AND /OR OFFSETTING ADVERSE IMPACTS IDENTIFIED

<table>
<tr><th>Aspect</th><th>Impact</th><th>Mitigation measures</th></tr>
<tr><td>Topography</td><td>The area is plain topography covered by rough stone and gravel. Quarrying activity will lead to change in geological setting of the area i.e., Due to the quarrying activity in the mine lease area will leads to affect the aesthetic view on the environment. Further, due to the movement of heavy vehicles in and around the mine lease area will leads to affect the surrounding agricultural lands, ecology and biodiversity, human habitations due to the emissions from vehicles like SO_2, NO_x, PM_{10}, $PM_{2.5}$, etc., The existing land use pattern is given as under.
<table>
<tr><th>Land Use</th><th>Present Area (Hect)</th><th>Area in use during the quarrying period (Hect)</th></tr>
<tr><td>Quarrying Pit</td><td>Nil</td><td>2.70.5</td></tr>
<tr><td>Infrastructure</td><td>Nil</td><td>0.01.0</td></tr>
<tr><td>Roads</td><td>Nil</td><td>0.02.0</td></tr>
<tr><td>Green Belt</td><td>Nil</td><td>0.78.5</td></tr>
<tr><td>Unutilized</td><td>3.52.0</td><td>Nil</td></tr>
<tr><td>Total</td><td>3.52.0</td><td>3.52.0</td></tr>
</table></td><td>The major impact due to this project on land environment is the change in land use. Mining activity will be carried out upto a depth of 52 m Below ground level. 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>2.70.5</td></tr>
<tr><td>Green Belt</td><td>0.78.5</td></tr>
<tr><td>Remaining area</td><td>0.02.0</td></tr>
<tr><td>Total</td><td>3.52.0</td></tr>
</table>
At the mine closure stage 2.70.5 Ha of lease area will be left as rain water harvesting pond 0.78.5 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="3">Pungai, Vagai, Vembu,</td><td>785</td><td rowspan="3">3m x 3m</td><td rowspan="3">85%</td></tr>
<tr><td>II</td><td>-</td></tr>
<tr><td>III</td><td>-</td></tr>
</table></td></tr>
</table>

<table>
<tr>
<td></td>
<td>The ultimate pit dimension of the mine lease area is given below.
<table>
<tr><th colspan="4">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>Depth (max) (m)</th></tr>
<tr><td>I</td><td>196</td><td>138</td><td>52 BGL</td></tr>
</table>
If mining is not done systematically it will leads to the dumping failure in the mining area.</td>
<td>
<table>
<tr><td>IV</td><td rowspan="2">Manjal konrai, Naval, Puvarasu, etc</td><td>-</td><td></td><td></td></tr>
<tr><td>V</td><td>-</td><td></td><td></td></tr>
<tr><td colspan="2">Total</td><td>785</td><td></td><td></td></tr>
</table>
Due to the thick vegetation around the mine lease area and sprinkling of water around the haul roads the dust emissions arise from the vehicles will be controlled.
At the end of mining period, fencing will be provided around the mine lease area to arrest the entry of public/cattle to the mining area.
The rough stone are proposed to quarry 5m bench height and 5m width with 45^0 slope and with conventional opencast Mechanized method. As per the approved mining plan a safety distance of 7.5m 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.</td>
</tr>
<tr>
<td>Drainage</td>
<td>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.</td>
<td>As per the approved mining plan the ultimate pit limit is 52 m (BGL). The ground water table is reported as 72 m BGL. In the proposed mining plan only 52 m 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.</td>
</tr>
<tr>
<td>Soil Quality and Agriculture</td>
<td>In monsoon seasons due to the excavation of minerals soil erosion and sediment deposition will occur in the nearby water bodies.</td>
<td>It is proposed to quarry upto a depth of 52 m below ground level and the nearby water table is 72 m. So, the mining activity will not affect the ground water. To</td>
</tr>
</table>

		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 52m (BGL). In the post mining stage, the quarried-out pit will be used for rainwater harvesting.

4.3.1 SOLID WASTE GENERATION AND MANAGEMENT

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

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

4.3.2 WATER ENVIRONMENT

Impact on Surface Water Resources

There is no seasonal or perennial 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.

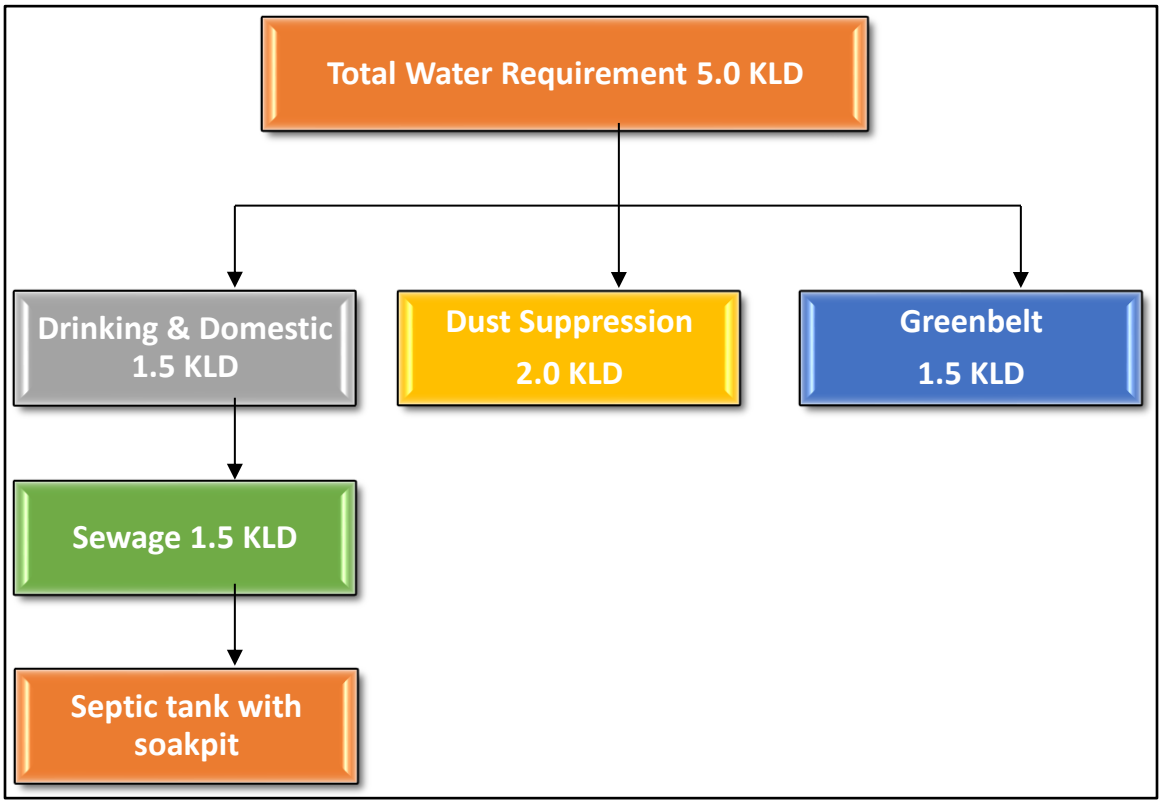
The following water bodies are located within 10 km radius of the project site. Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (SW). Water table is found at a depth of 72 m BGL.

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 5.0 KLD which will be sourced from outside agencies. Negligible sewage of 1.5 KLD will be generated, for which a septic tank with soak pit will be set up. The water balance diagram is given below.

FIG 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 72 m BGL. The mining will go up to the maximum depth of 52 m BGL. So, there will be no chance of intersecting the ground water table by the mining activity. So, the impact of mining on the ground water is not envisaged.

Mitigation measures

- Entire lease area will be provided with proper garland drains.
- Check wears will be provided to prevent solids from wash off.
- Construction of garland drains around freshly excavated so that flow of water with loose material is prevented.
- The mine water will be passed through the natural slopes and valleys and gets accumulated in the settling tank (Bottom pit)

Ground water environment in buffer zone

The scenario of ground water in Tiruvannamalai District, Cheyyar Taluk is given below.

TABLE 4.1 Ground Water Level Status in Tiruvannamalai District

S. No.	Assessment Unit (Firka)	Net Annual Ground water availability	Existing gross ground water consumption for irrigation	Existing gross ground water consumption for domestic and industrial water supply	Existing gross ground water consumption for all uses	Stage of ground water development	Category
1	Palli	58,970.76	54,257.79	6,548.26	60,806.05	103 %	Over Exploited

Source: nwm.gov.in

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

4.4 VEGETATION 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 0.78.5 Ha. Trees like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indiaca will be planted around the mine lease area. A total of 785 trees are planned to be planted. Spacing will be 3m x 3m.

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.

4.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF ENVIRONMENTAL COMPONENTS

4.5.1 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.

4.5.2 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 equipment's 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.

4.5.3 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 equipment's 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.

4.5.4 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 Tmt.T.Poornima 7,42,225 m^3 of Rough Stone and 57,976 m^3 of Gravel for a period of five years, and cluster quarry Thiru.S.Gokulraj 5,35,845 m^3 of rough stone and Gravel 55,252 $m^3$for a period of ten years, Thiru.S.Nirmal 2,18,960 m^3 and Gravel 30,858 m^3 for a period of ten years by the opencast mechanized mining method.

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

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

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

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

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

Special features of AERMOD include its ability to treat the vertical in homogeneity of the planetary boundary layer special treatment of surface releases, irregularly shaped area sources, a plume model for the convective boundary layer, limitation of vertical mixing in the stable boundary layer, and fixing the reflecting surface at the stack base.

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

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

Salient features of the AERMOD model are given hereunder

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

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

4.5.5 Sources of Dust Emission

The proposed mining is carried out by opencast mechanized method. The air borne particulate matter generated by ore handling operations, transportation and

screening of ore is the main air pollutant. The emissions of sulphur dioxide (SO_2), Oxides of Nitrogen (NOx) contributed by diesel operated excavation/loading equipment and vehicles plying on haul roads are marginal. Prediction of impacts on air environment has been carried out taking into consideration proposed production and net increase in emissions. Based on the various operations involved in the production of minerals, the various emission sources has been identified as given below.

a. Area sources.
b. Line sources.

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

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

4.5.6 Emission Details

All the emissions discussed above are quantified for proposed maximum production of Tmt.T.Poornima 7,42,225 m^3 Rough Stone and Gravel 57,976 m^3 for a period of five years, and cluster quarry Thiru.S.Gokulraj 5,35,845 m^3 of rough stone and Gravel 55,252 $m^3$for a period of ten years, Thiru.S.Nirmal 2,18,960 m^3 and Gravel 30,858 m^3 for a period of five years by the open-cast mechanized mining method. The existing air quality levels are covered in the baseline scenario.

Excavation, loading and transportation through tippers are the major sources, which are of significance. Therefore, the emissions considered for modeling are from drilling blasting, excavation & transportation rough stone and gravel.

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.

4.5.7 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.

4.5.8 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 2.45 µg/m^3 of PM 2.5 & 3.75 µg/m^3 of PM_{10} within the mine area and cluster area is estimated to be about 2.84 µg/m^3 of PM 2.5 & 4.97 µg/m^3 of PM_{10}, where mining operations are being carried out. The impact of mining operations would be negligible beyond 0.4 km.

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

4.5.9 Emission sources & Quantification

Various point and non-point sources of emissions from Proposed Rough Stone and Gravel Quarry of Tmt.T. Poornima is quantified and presented below:

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

Quantity, TPA	Tmt.T.Poornima Rough Stone -7,42,225 m^3 Gravel 57,976 m^3
Operational Hours Per Year	2400
Activity Rate, t/hr.	402.213
Emission of dust, g/t.	0.26
Emission of dust, g /hr.	57.356
Area of influence, m^2	629
Uncontrolled emission rate g/s/m^2	0.00006519
Controlled emission rate, PM10 g/s/m^2	0.000065197
Controlled emission rate, PM2.5 g/s/m^2	0.000041367

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

Quantity, TPA	Tmt.T.Poornima Rough Stone -7,42,225 m^3 Gravel 57,976 m^3
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	29565
Lead length/trip, Km	0.98
Total VKT/Year	85364
Emission Kg/VKT	0.26
Total emission Kg/Year	51368
Uncontrolled emission rate g/s/m	5.1289
Controlled emission rate, PM10 g/s/m	0.51289
Controlled emission rate, PM2.5 g/s/m	0.40423

(III) Area Emissions – Total Material handling (Cluster Rough Stone and Gravel)

Quantity, m3	• Tmt.T.Poornima 7,42,225 m3 and Gravel 57,976 m3 for a period of five years

	• Thiru.S.Gokulraj 5,35,845 m3 of rough stone and Gravel 55,252 m3 for a period of ten years, • Thiru.S.Nirmal 2,18,960 m3 and Gravel 30,858 m3 for a period of ten years
Operational Hours Per Year	2400
Activity Rate, t/hr.	365.33
Emission of dust, g/t.	0.29
Emission of dust, g /hr.	79.2356
Area of influence, m2	629
Uncontrolled emission rate g/s/m2	0.0006164
Controlled emission rate, PM10 g/s/m2	0.00061643
Controlled emission rate, PM2.5 g/s/m2	0.00046234

(IV) Line Source – Transport of Rough Stone and Gravel (Cluster)

Quantity, m3	• Tmt.T.Poornima 7,42,225 m3 and Gravel 57,976 m3 for a period of five years • Thiru.S.Gokulraj 5,35,845 m3 of rough stone and Gravel 55,252 m3 for a period of ten years, • Thiru.S.Nirmal 2,18,960 m3 and Gravel 30,858 m3 for a period of ten years
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	68255
Lead length/trip, Km	0.27
Total VKT/Year	70413
Emission Kg/VKT	0.25
Total emission Kg/Year	215352
Uncontrolled emission rate g/s/m	5.41326
Controlled emission rate, PM10 g/s/m	0.54132
Controlled emission rate, PM2.5 g/s/m	0.38126

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

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

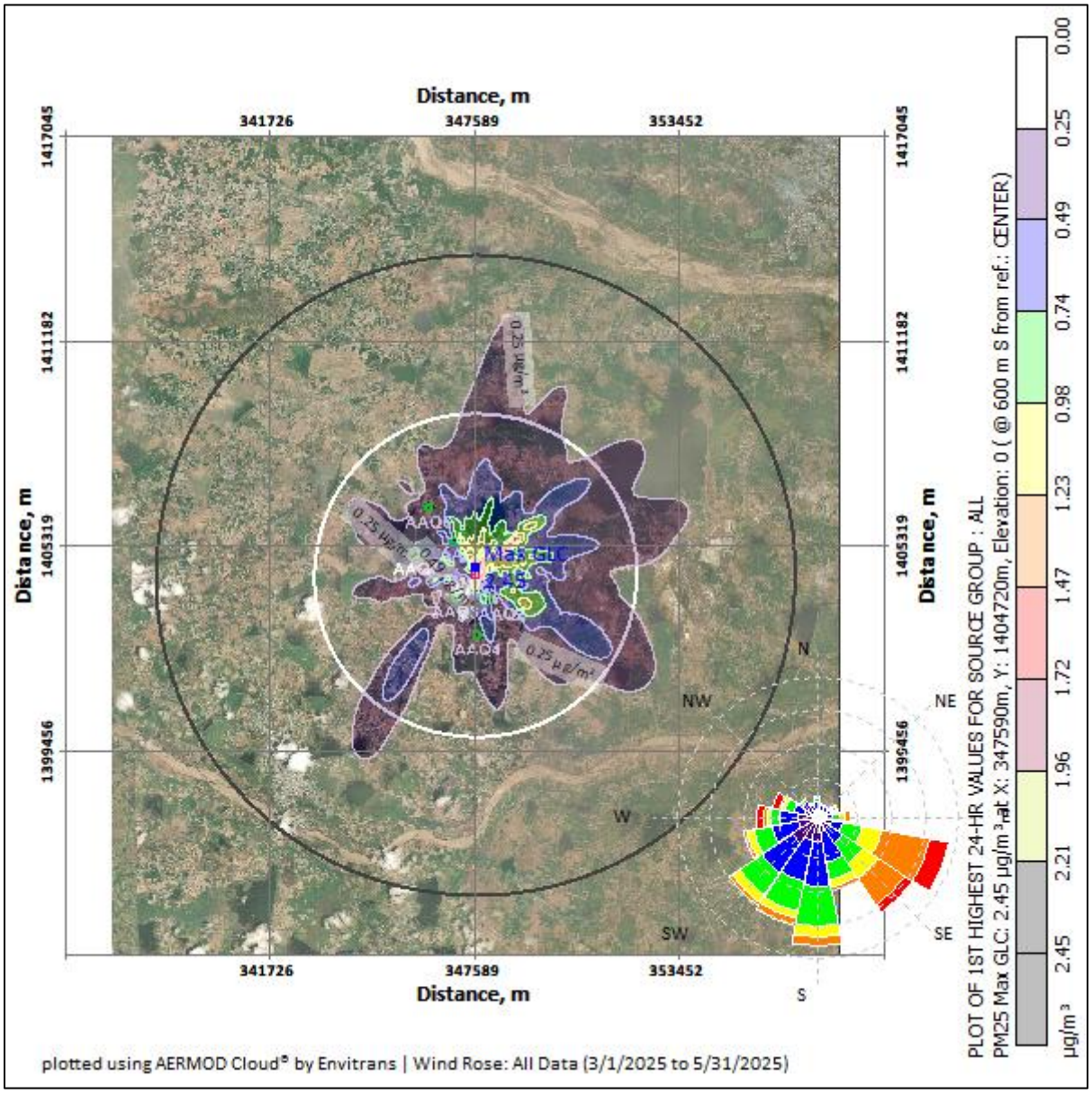


FIG 4.3 Isopleth of GLC Prediction for PM_{10}

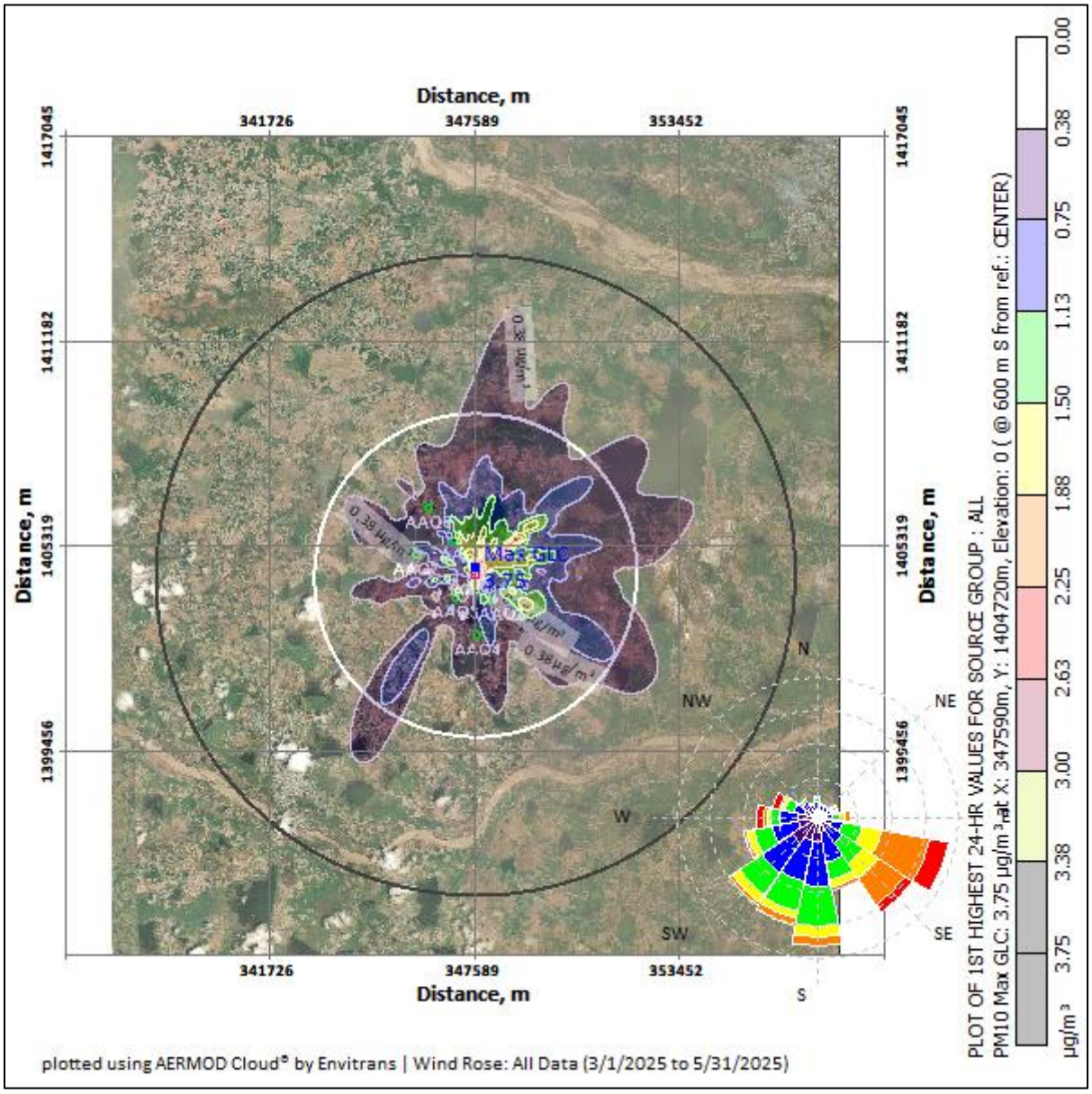


FIG 4.4 Isopleth of GLC Prediction –Cumulative for $PM_{2.5}$

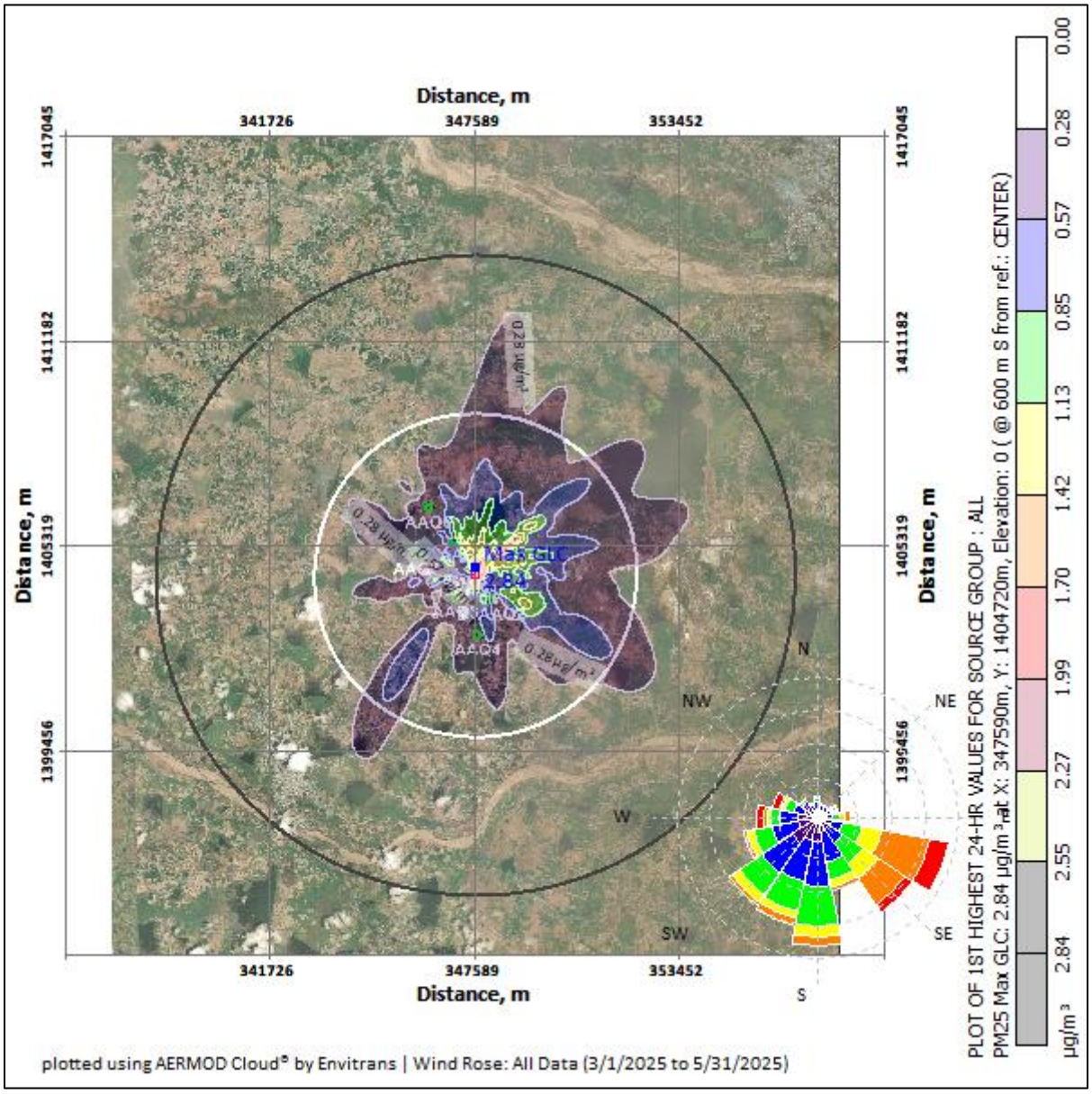
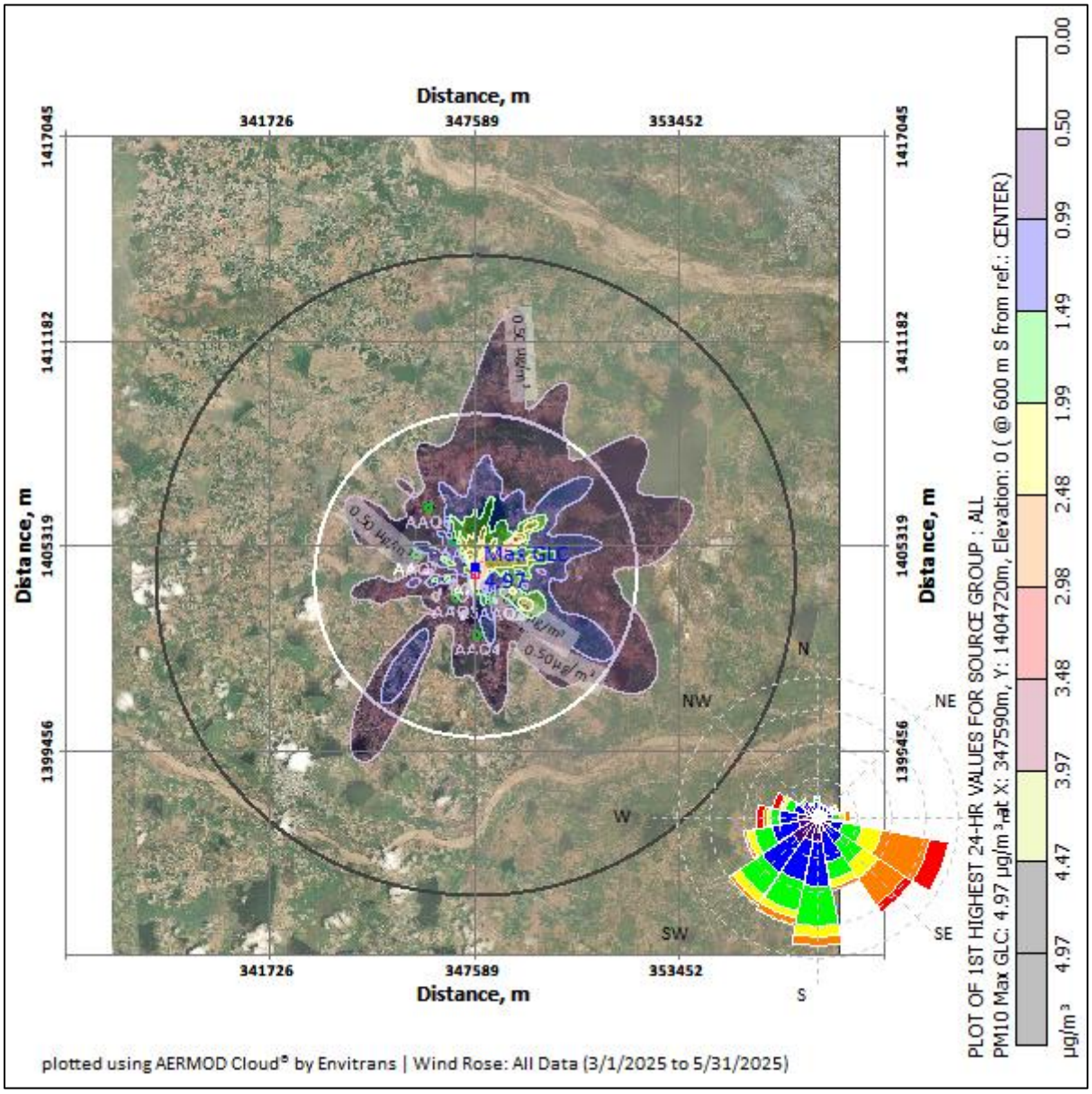


FIG 4.5 Isopleth of GLC Prediction –Cumulative for PM_{10}



PREDICTED AMBIENT AIR QUALITY:

The post project Concentrations of PM10, PM2.5, (GLC) (base line + incremental) after adopting necessary control measures is given in Table No - 4.3 to 4.6.

Table 4.3 Concentrations of PM2.5 after Project Implementation

SL.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Within Mine Lease area	27.8	2.45	30.25	60
2	Palli	22.2	2.21	24.41	
3	Cholavaram	23.05	1.96	25.01	
4	Mangalam	25.3	1.72	27.02	
5	Vadaelapakkam	25.1	1.47	26.57	
6	Perumbulimedu	26.4	1.23	27.63	
7	Vadapoondipattu	26.6	0.98	27.58	

Table 4.4 Cluster Concentrations of PM2.5 after Project Implementation

SL.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Within Mine Lease area	27.8	2.84	30.64	60
2	Palli	22.2	2.55	24.75	
3	Cholavaram	23.05	2.27	25.32	
4	Mangalam	25.3	1.99	27.29	
5	Vadaelapakkam	25.1	1.70	26.8	
6	Perumbulimedu	26.4	1.42	27.82	
7	Vadapoondipattu	26.6	1.13	27.73	

Table 4.5 Concentrations of PM10 after Project Implementation

SL.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Within Mine Lease area	58.6	3.75	62.35	100
2	Palli	47.8	3.38	51.18	
3	Cholavaram	47.4	3.00	50.4	
4	Mangalam	51.4	2.63	54.03	

5	Vadaelapakkam	55.3	2.25	57.55	
6	Perumbulimedu	55.4	1.88	57.28	
7	Vadapoondipattu	56.0	1.50	57.5	

Table 4.6 Cluster Concentrations of PM10 after Project Implementation

SL.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Within Mine Lease area	58.6	4.97	63.57	100
2	Palli	47.8	4.47	52.27	
3	Cholavaram	47.4	3.97	51.37	
4	Mangalam	51.4	3.48	54.88	
5	Vadaelapakkam	55.3	2.98	58.28	
6	Perumbulimedu	55.4	2.48	57.88	
7	Vadapoondipattu	56.0	1.99	57.99	

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 PM10 are in the range of 50.4 µg/m3 to 62.35 µg/m3 and for PM2.5 are in the range of 24.41 µg/m3 to 30.25 µg/m3 and PM10 are surrounding area range of 51.37 µg/m3 to 63.57 µg/m3 and for PM2.5 are in the range of 24.75 µg/m3 to 30.64 µg/m3 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.

4.6 ASSESSMENT OF SIGNIFICANCE OF IMPACTS (CRITERIA FOR

DETERMINING SIGNIFICANCE, ASSIGNING SIGNIFICANCE)

4.6.1 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.

4.6.2 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 Palli, Cholavaram, Mangalam, Vadaelapakkam, Perumbulimedu, and Vadapoondipattu Villages and the values are given below.

TABLE 4.7 Noise Levels in Monitoring Locations

S. No.	Location	Day Equivalent (in dBA)	Night Equivalent (dBA)
1	Project Site	46.6	39.3
2	Palli	48.9	39.7
3	Cholavaram	47.8	40.6
4	Mangalam	46.8	39.1
5	Vadaelapakkam	50.3	40.3
6	Perumbulimedu	44.9	37.6
7	Vadapoondipattu	47.2	38.0

The noise levels are within the MoEFCC 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 seven 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).

4.6.3 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.

4.7 MITIGATION MEASURES

4.7.1 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.

4.7.2 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.

4.7.3 SOCIO ECONOMIC IMPACT

The lease area is Patta Land. The proponent has planned to spend INR 5,00,000 for CER activities.

4.7.4 OCCUPATIONAL HEALTH

Impacts on humans due to various mining activities

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

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

Table 4.8 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.

4.7.5 WASTE MANAGEMENT

Solid Waste

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

Liquid Waste

There is no process effluent generation from this mine. Hence no liquid waste is generated. Domestic wastewater i.e 1.5 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 horses. The said hazardous waste are very negligible quantity, it will be properly collected in the source level, stored in impervious storage yards and disposed of as per the Hazardous waste (Trans-boundary Movement) Management Rules, 2016.

Plastic Waste

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

CHAPTER 5

ANALYSIS OF ALTERNATIVES

5.1 DESCRIPTION OF EACH ALTERNATIVE

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

5.2 SUMMARY OF ADVERSE IMPACTS OF EACH ALTERNATIVE

The project proponent has prepared mining plan under rule 19(1), 41 and 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Deputy Director, Dept. of Geology & Mining, Tiruvannamalai vide Rc.No.165/Kanimam/2025, Dated: 18.07.2025.

- 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.

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CHAPTER 6

ENVIRONMENTAL MONITORING PROGRAMME

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

6.1.1 ENVIRONMENTAL MONITORING

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

A schedule is framed with timeline to monitor various parameters during the operation of the project. The schedule is framed based on MoEFCC and Tamil Nadu State Pollution Control Board. In case the SEIAA/TNPCB/MoEFCC 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	L_{eq}, L_{max}, L_{min}, L_{eq} Day & L_{eq} 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 – 3.4, 3.10, 3.12 & 3.14.

6.1.5 MEASUREMENT METHODOLOGY

(a) Ambient Air Quality

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

(b) Water Quality

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

(c) Noise Monitoring

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

(d) Green Belt and Afforested Areas

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

(e) Socio-Economics

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

6.1.6 TECHNICAL ASPECTS OF MONITORING THE EFFECTIVENESS OF MITIGATION MEASURES

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

6.1.8 REPORTS TO BE GENERATED

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

Table 6.2 Important Records to be maintained by PP

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

6.1.9 DETAILED BUDGET AND PROCUREMENT SCHEDULES

The budget planned for environmental monitoring is given below.

Table 6.3 - Environmental Management Plan Budget

Sl. No	Budget planned for	Capital Cost Amount (INR)	Recurring Cost/Annum Amount (INR)
A	Air Environment	7.78	1.54
B	Noise Environment	0.30	0.02
C	Waste Management	0.25	0.12
D	Mine Closure	0.79	0.16
E	Implementation of EC, Mining Plan & DGMS Condition	0.93	0.79
Total		**10.05**	**2.63**
Total EMP Cost for 5 years is 24.58 lakhs (This amount will be subjected to change after public hearing) i.e., Rs.10.05 Lakhs of Capital Cost + Rs.14.53 Lakhs of Recurring Cost (For 5 Years)			

CHAPTER 7
ADDITIONAL STUDIES

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

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

7.1 PUBLIC CONSULTATION

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

7.2 RISK ASSESSMENT

The DGMS risk assessment process is intended to identify existing and probable hazards in the work environment and all operations and assess the risk levels of those hazards in order to prioritize those that need immediate attention. Further, mechanisms responsible for these hazards are identified and their control measures, set to timetable are recorded along with pinpointed responsibilities.
The whole quarry operation will be carried out under the direction of a Qualified Competent person holding certificate of competency to manage a metalliferous mine granted by the DGMS. Factors of risks involved due to human induced activities in connection with this proposed mining & allied activity with detailed analysis of causes and control measures for the mine is given in below Table 7.1.

Table 7.1 Risk Assessment and Control Measures

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

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

		cabin when it is loaded.	
6	Natural calamities	Unexpected happenings	• An emergency management plan will be prepared considering all possible national calamity and the same will be executed if any such situation occurs. • Escape Routes will be provided to prevent inundation of storm water. • Fire Extinguishers & Sand Buckets in the designated areas.
7	Failure of Mine Benches and Pit Slope	Slope geometry, Geological structure	Ultimate or over all pit slope shall be below 60° and each bench height shall be 5m height.

7.3 DISASTER MANAGEMENT PLAN

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

7.3.1 MODEL DISASTER MANAGEMENT PLAN

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

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

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

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

mine plans.

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

7.3.2 OBJECTIVE OF DISASTER MANAGEMENT PLAN

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

Communication System

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

Facilities

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

Personnel

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

Operating Procedures

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

Table 7. 3 Salient Features of Existing & Proposed Quarries

Description		P1	P2	P3
Name of the Quarry		**Thiru.S.Gokulraj**	**Tmt.T.Poornima**	**S.Nirmal**
Geological Resources	Rough Stone	13,78,520 m3	17,58,800 m3	6,98,880 m3
	Gravel	68,926 m3	70,352 m3	Weathered Rock – 19,968 m3 Gravel – 39,936 m3
Mineable Reserves	Rough Stone	5,35,845 m3	7,42,225 m3	2,18,960 m3
	Gravel	55,252 m3	57,976 m3	Weathered Rock – 14,796 m3 Gravel – 30,858 m3
Production quantity	Rough Stone	5,35,845 m3	7,42,225 m3	2,18,960 m3
	Gravel	55,252 m3	57,976 m3	Weathered Rock – 14,796 m3 Gravel – 30,858 m3
Peak Production	Rough Stone	86,050 m3	1,52,490 m3	44220 m3
	Gravel	37,342 m3	34,176 m3	Gravel – 19,980 m3
Total Production in Tons per day		1038	1626	538
Lorry Loads per day in Nos		52	81	54
Employment in Nos		30	33	25
Proposed Depth in meters		42 m BGL	52 m BGL	38 m BGL
Status of the quarry		Proposed	Proposed	Existing

7.4 CLUSTER MINE CLOSURE PLAN

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

7.5 SLOPE STABILITY PLAN

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

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

Site Specific Analysis

- The quarry lease area is plain terrain which is covered by topsoiled rock formation. The rock type noticed in the lease area is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian.
- Since the formation is of homogeneous rock type probability of slope failure is low and can be avoided if proper measures are adopted.
- There will be a 7.5m safety zone which will form a ridge which can also take care of the top section and as such no risk is envisaged on this front.

Mitigation Measures

- Regular inspection of the mine faces to be carried out by pp for ensuring absence of any structural features like faults, joints, dyke, intrusive material in the rock strata which may affect the slope stability and cleared.

- No loose material or boulders is to be stacked on the mine top or pit benches.
- Height of the benches should be 5m.
- Haul road formation will be at 1 in 15 slope with adequate road width.
- There will be no ground water table intersection.
- No seepage is expected due to formation. Adequate drainage management system comprising peripheral garland drain, settling pond to regulate monsoon water will be created to prevent saturation of compact layers, apparent drainage over the bench slope to avert damages to quarry face and manage the water flow.

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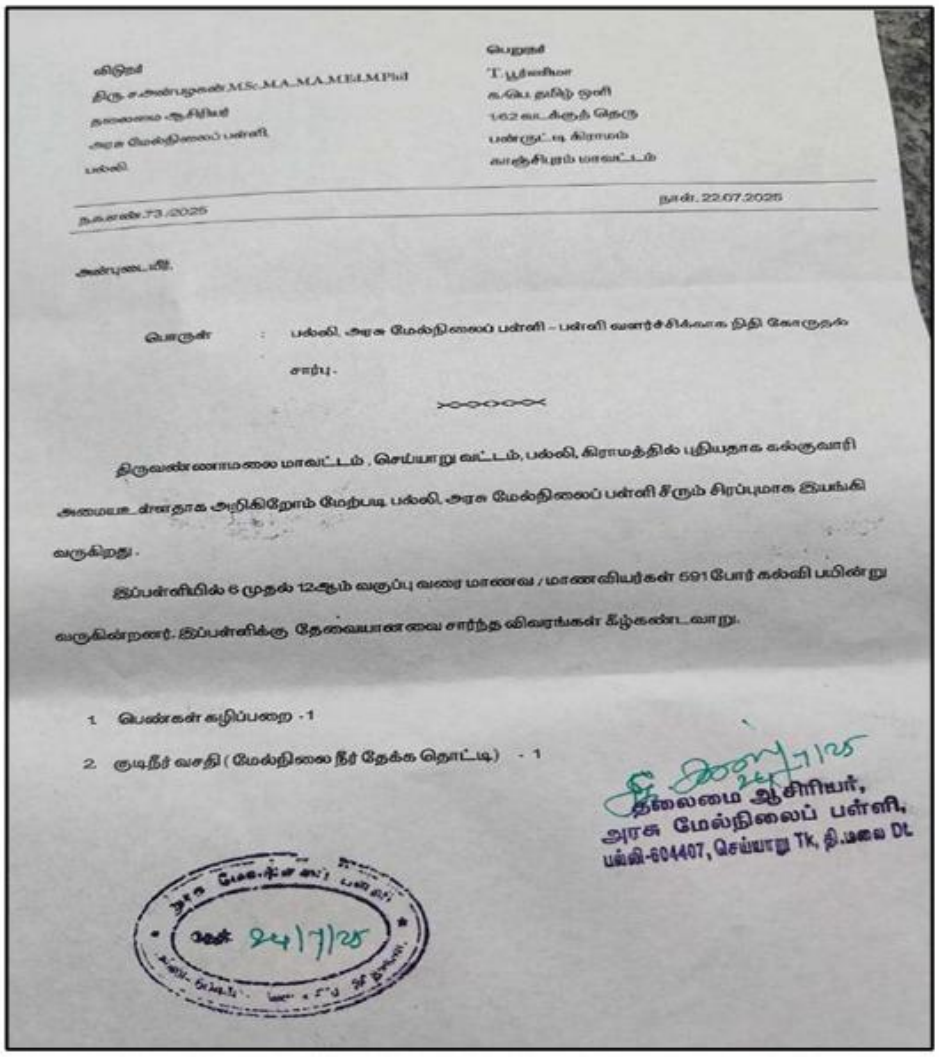
CHAPTER 8

PROJECT BENEFITS

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

The CER mining activity at proposed Rough Stone and Gravel Quarry of Tmt.T.Poornima will create direct employment opportunity for 33 local people.

Based on the request letter received from Government High School, Palli the PP has proposed CER amount of Rs. 5.0 Lakhs for various activities. The copy of the letter is enclosed below.



விடுதல்
திரு. ச.அன்பழகன் M.Sc.,M.A.,M.A.,M.Ed.,M.Phil
தலைமை ஆசிரியர்
அரசு மேல்நிலைப் பள்ளி
பல்லி.

பெறுதல்
T. பூர்ணிமா
கூகுள் தமிழ் ஒளி
162 வடக்குத் தெரு
பன்ருட்டி கிராமம்
காஞ்சிபுரம் மாவட்டம்

நகலன்/73/2025 நாள். 22.07.2025

அன்புடையீர்,

பொருள் : பல்லி அரசு மேல்நிலைப் பள்ளி – பள்ளி வளர்ச்சிக்காக நிதி கோருதல் சார்பு.

திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், பல்லி, கிராமத்தில் புதியதாக கல்குவாரி அமையவுள்ளதாக அறிகிறோம் மேற்படி பல்லி, அரசு மேல்நிலைப் பள்ளி சீரும் சிறப்புமாக இயங்கி வருகிறது.

இப்பள்ளியில் 6 முதல் 12ஆம் வகுப்பு வரை மாணவ / மாணவியர்கள் 591 போர் கல்வி பயின்று வருகின்றனர். இப்பள்ளிக்கு தேவையானவை சார்ந்த விவரங்கள் கீழ்கண்டவாறு.

1. பெண்கள் கழிப்பறை - 1
2. குடிநீர் வசதி (மேல்நிலை நீர் தேக்க தொட்டி) - 1

24/7/25
தலைமை ஆசிரியர்,
அரசு மேல்நிலைப் பள்ளி,
பல்லி-604407, செய்யாறு Tk, தி.மலை Dt.

24/7/25

Figure 8.1 – CER Letter

The list of activities proposed for CER is mentioned below.

Table 8.1 CER Activities

S. No.	PROPOSED CER ACTIVITIES	COST IN LAKHS.
1	Carrying out various infrastructural development activities.	5.0
Total		**5.0**

****

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. TO25B0108TN5538111N, dated 11/01/2026 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.
	2.0 KLD of water will be used for dust suppression.
	Avoiding blasting during high wind period, night times and temperature inversion periods.
	Regular grading of haul road to clear accumulation of loose material.
	It will be ensured that vehicles are properly maintained to comply with exhaust emission requirements
	Maintenance as per operator manual of the equipment and machinery in the mines to minimizing air pollution
	Ambient Air Quality Monitoring carried out in the project area and in surrounding villages to access the impact due to the mining activities and the efficacy of the adopted air pollution control measures.
	Afforestation for control of dust.
Surface water	Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (SW)
	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 52 m below ground level, Water table is found at a depth of 72 m, hence the project will not intersect the Ground water table during entire quarry period.
Water Consumption and Wastewater generation	Water required for this project will be sourced from vendors.
	Domestic wastewater generation of 1.5 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 (7.5 m and 10m) of the project area to attenuate the noise and the same will be maintained.
	Preventive maintenance of mining machinery and replacement of worn-out accessories to control noise generation.
	Annual ambient noise level monitoring is carried out in the project area and in surrounding villages to access the impact due to the mining activities and the efficacy of the adopted noise control measures. Additional noise control measures will be adopted if required as per the observations during monitoring.
Ground Vibration and Fly Rock Control	Controlled blasting using delay detonators will be carried out to maintain the PPV value well within the prescribed standards of DGMS.
	Drilling and blasting will be carried under the supervision of qualified persons.
	Will be Ensured that blast holes are adequately stemmed for the depth of the hole and stemmed with suitable angular material.
	To be Undertake noise or vibration monitoring.
Land Environment	At conceptual stage, the mining pits will be converted into Rain Water Harvesting pit. Remaining area will be converted into greenbelt area.
	No external dumping i.e., outside the project area. The entire material will be sold.
	Garland drains with catch pits / settlement traps to be provided all around the project area to prevent run off affecting the surrounding lands.
	The periphery of Project area will be planted with thick plantation to arrest the fugitive dust, which will also act as acoustic barrier.
	Frequent Soil and ground water testing as per Environmental Monitoring Plan.
Top Soil / Overburden	There is no overburden anticipated during the quarrying operation.
Biological Environment	During mining, thick plantation will be carried out on the mentioned safety zone areas.
	The main attributes that retard the survival of sapling is fugitive dust, this fugitive dust can be controlled by water sprinkling on the haul roads and installing a sprinkler unit near the newly planted area.
	Regular review on green belt development programme.
	Year wise greenbelt development plan mentioned in Chapter III will be monitored.

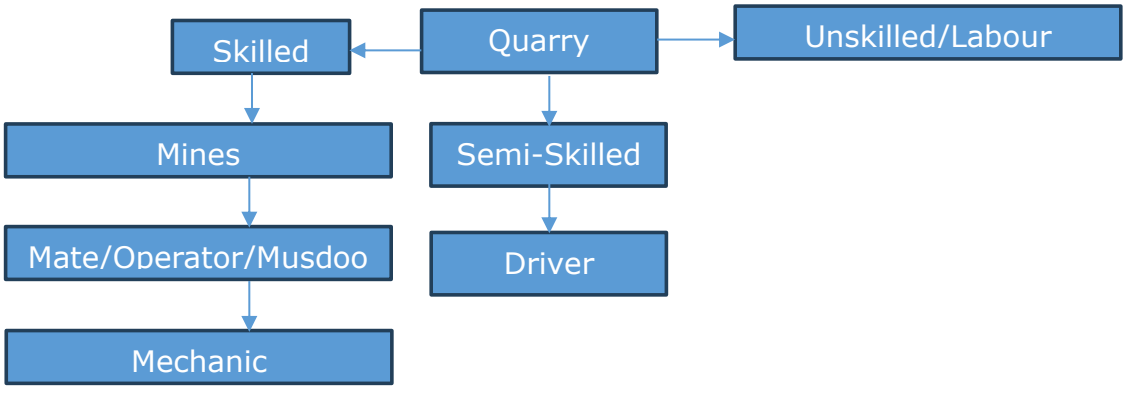
10.1.3 ADMINISTRATION AND TECHNICAL SETUP

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

Management Level. The action plan for monitoring consists of monitoring of following environmental components.

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

Fig. 10.1 Organization Chart



1	Skilled	Mines Manager(II Class)	1 No
		Foreman/Mine Mate	2 Nos
		Operator	6 Nos
		Mechanic	1 No
2	Semi-Skilled	Diver	3 Nos
3	Un-skilled	Labours	12 Nos
		Total	**33 Nos.**

10.1.4 ENVIRONMENTAL POLICY

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

10.1.5 OCCUPATIONAL SAFETY & HEALTH MANAGEMENT

Occupational safety and health are very closely related to productivity and a good employer-employee relationship. The main factors affecting occupational health in quarries are fugitive dust and noise. Safety of employees during quarrying operations and maintenance of mining equipment will be taken care of as per the Mines Act 1952 and Rule 29 of the Mines Rules 1955. To avoid any adverse effect on the health of

workers due to dust, noise, and vibration, sufficient measures have been provided. The health status of workers in the mine will be regularly monitored under an occupational surveillance programme. Under this programme, all employees are subjected to a detailed medical examination at the time of employment. Before the induction of employees, a pre-medical checkup is done. In addition, a periodical medical checkup will be done annually for all employees.

10.1.6 COST OF ENVIRONMENTAL CONTROL MEASURES

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

Table 10.2 - Environmental Management Plan Budget

Sl. No	Budget planned for	Capital Cost Amount (INR)	Recurring Cost/Annum Amount (INR)
A	Air Environment	7.78	1.54
B	Noise Environment	0.30	0.02
C	Waste Management	0.25	0.12
D	Mine Closure	0.79	0.16
E	Implementation of EC, Mining Plan & DGMS Condition	0.93	0.79
Grant Total (A+B+C+D+E)		10.05	2.63
Total EMP Cost for 5 years is 24.58 lakhs (This amount will be subjected to change after public hearing) i.e., Rs.10.05 Lakhs of Capital Cost + Rs.14.53 Lakhs of Recurring Cost (For 5 Years)			

10.1.7 CONCLUSION

Various aspects of mining activities were considered, and related impacts were evaluated. Considering all the possible ways to mitigate the Environmental concerns, an Environmental Management Plan was prepared, and INR 24.58 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

Tmt.T.Poornima has obtained Precise Area Communication Letter from Deputy Director, Department of Geology and Mining, Tiruvannamalai, to quarry out 7,42,225 m3 of Rough Stone and 57,976 m3 of Gravel from an extent of 3.52.00 Ha located in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.

As per EIA notification, 2006 and its subsequent amendments the proposed "Rough Stone Quarry of Tmt.T.Poornima 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. TO25B0108TN5538111N, Dated: 11/01/2026. This report has been prepared in line with the approved TOR for production of maximum excavation of 7,42,225 m3 of Rough Stone and 57,976 m3 of Gravel.

S.No.	Description	Status/Remarks
1.	Sector	1(a), non-coal mining
2.	Category of the project	B1
3.	Proposed mineral	Rough Stone
4.	Type of Lease	Fresh Project
5.	Extent of the lease	3.52.0 Ha
6.	Proposed depth of Mining	52m BGL
7.	Method of mining	Opencast Mechanized
8.	Proposed lease period	5 Years
9.	Proposed Environmental Clearance	5 Years
10.	Proposed production quantity for five years	Rough Stone: 7,42,225 m3

The Lessee Tmt.T.Poornima is an individual with sound experience in the identification, quarrying and marketing of Rough Stone. The proposed land is a Patta land and attached as **Annexure 6.**

1.1.1 LOCATION

This project site is located in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State with Latitude : 12°42'55.87"N to 12°43'04.85"N and Longitude : 79°35'46.33"E to 79°35'54.15"E with Survey of India Topo Sheet No.57 P/10. 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 N450E –S450W with dipping towards SE600.

11.1.3 PROJECT DESCRIPTION

This is a proposed Rough Stone and Gravel quarry by Opencast Mechanized mining method with drilling and blasting. The quarrying is restricted up to a depth of 52 m below ground level. The geological reserves are estimated to be 17,58,800 $m^3$of Rough Stone and 70,352 m3 of Gravel. The mineable reserve calculated by deducting 7.5m, 10m & 50m safety distance and bench loss. The mineable reserves are 7,42,225 m3 of Rough Stone and 57,976 m3 of Gravel which will be recovered at the rate of 100% recovery upto a depth of 52 m Below ground level for the period of five years.

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

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

- There is no overburden anticipated during entire rough stone quarrying operation.

S.No.	Type of Detail	Description
1	Sector	1(a) Non coal mining
2	Fresh/Existing project	Fresh Project
3	Category	B1
4	Nature of mineral	Minor mineral
5	Production	7,42,225 m3 of Rough Stone and 57,976 m3 of Gravel
6	Life	5 years
7	Waste generation and management	There is no overburden anticipated during the quarrying operation. Hence, no waste generation.
8	Bench height and width	Height and Width – 5m
9	Ultimate pit depth	52 m (BGL)
10	End use	Rough Stone will be loaded into tippers to needy buyers for producing aggregates, M-sand.

11.1.4 PROJECT REQUIREMENTS

The requirements of the project is given below.7

S.No.	Nature of requirement	Description
1	Water requirement	Total water requirement of 5.0 KLD which will be procured from the outside agencies. Out of 1.5 KLD drinking water requirements, Green belt development is 1.5 KLD and dust suppression is 2.0 KLD.
2	Power requirement	No electricity is needed for mining operations, for office demands, it will be met from the state grid. Fuel requirement for Rough Stone and Gravel is 6,03,443 L for entire life of the project.
3	Manpower requirement	33 Nos.

4	Financial requirement	The total project cost as per PFR will be INR 135.70 lakhs including Operational cost, Fixed Asset cost and EMP cost
5	Funds for Socio economic development	INR 5.0 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.

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,	Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (SW)
B	Coastal zone, biospheres,	Nil within 10km radius
C	Mountains, forests	Nil within 10Km radius Enadavadi R.F – 11.53KM(w)
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	Palli – 490m - SE

9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Palli – 490m - SE
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Nil
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	Nil
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earth quakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No. The area is not prone to earthquakes, floods, etc.

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

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

11.2 EXPLANATION OF HOW ADVERSE EFFECTS HAVE BEEN MITIGATED

11.2.1 AIR ENVIRONMENT

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

Details of Ambient Air Quality Monitoring Locations				
S. No.	**Station Code**	**Locations**	**Latitude**	**Longitude**
1	AAQ 1	Project Site	12°43'0.73"N	79°35'49.83"E
2	AAQ 2	Palli	12°42'37.79"N	79°36'5.59"E
3	AAQ 3	Cholavaram	12°43'42.39"N	79°37'43.72"E
4	AAQ 4	Mangalam	12°42'40.15"N	79°35'27.86"E
5	AAQ 5	Vadaelapakkam	12°41'59.98"N	79°35'48.74"E
6	AAQ6	Perumbulimedu	12°43'51.40"N	79°38'56.61"E
7	AAQ7	Vadapoondipattu	12°43'36.65"N	79°35'25.76"E

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

Station ID	Min	Max	Avg.
Particulate matter PM-$_{2.5}$ (µg/m^3)			
AAQ-1	22.7	32.1	27.8
AAQ-2	18.6	28.6	22.2
AAQ-3	19.7	28.6	23.05
AAQ-4	19.8	30.2	25.3
AAQ-5	21.7	31.3	25.1
AAQ-6	23.3	35.4	26.4
AAQ-7	23.5	35.6	26.6
CPCB NAAQS 2009 for PM $_{2.5}$ - 60 µg/m^3			
Particulate matter PM-$_{10}$ (µg/m^3)			
AAQ-1	47.5	67.5	58.6
AAQ-2	40.8	52.6	47.8
AAQ-3	43.2	54.5	47.4
AAQ-4	46.2	60.3	51.4
AAQ-5	48.5	63.3	55.3
AAQ-6	50.3	64.4	55.4
AAQ-7	50.9	65	56.0
CPCB NAAQS 2009 for PM $_{10}$ - 100 µg/m^3			
Sulphur Di-oxide as SO_2 (µg/m^3)			
AAQ-1	5.5	8.7	6.8
AAQ-2	3.4	5.9	4.3
AAQ-3	3.7	6	4.6
AAQ-4	4	6.4	4.8
AAQ-5	3.8	8.4	5.7
AAQ-6	4.2	6.6	5.2
AAQ-7	4.4	6.8	5.5
CPCB NAAQS 2009 for SO_2 – 80 µg/m^3			
Oxide of Nitrogen as NO_2 (µg/m^3)			
AAQ-1	10	12.9	11.2
AAQ-2	7.3	9.8	8.25
AAQ-3	6.7	8.7	7.6
AAQ-4	7.3	10.3	8.4
AAQ-5	7.7	12.4	9.5
AAQ-6	7.9	11.8	9.3
AAQ-7	8.5	12.4	9.9
CPCB NAAQS 2009 for NO_2 – 80 µg/m^3			

11.2.2 WATER ENVIRONMENT

Results of Ground Water sampling Analysis in 7 locations								Standards as Per IS 10500: 2012	
Parameters	**W1**	**W2**	**W3**	**W4**	**W5**	**W6**	**W7**	**Acceptable Limits**	**Permissible Limits**
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1	<1	<1.0	<1	<1	<1	1	5
pH at 25 ˚C	7.36	7.88	6.96	7.41	7.32	7.56	7.38	6.5- 8.5	No Relaxation
Electrical Conductivity	1024	402.5	716.8	1680	1002	1156	1864	-	-
Total Dissolved Solids	615	242	430	1010	602	695	1120	500	2000
Total hardness as CaCO3	430	172	234	350	405	330	436	200	600
Calcium as Ca	81.6	43.6	56.8	65.6	76	72.8	74.4	75	200
Magnesium as Mg	54.2	15.1	22.1	44.6	51.6	35.5	60.0	30.0	100
Calcium as CaCO3	204	109	142	164.0	190	182	186	-	-
Magnesium as CaCO3	226	63	92	186	215	148	250	-	-
Total alkalinity as CaCO3	316	148	159	320	254	256	305	200	600
Chloride as Cl-	80.4	32.5	160	332	115	180	354	250	1000
Free Residual chlorine as Cl-	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL (D.L -0.2)	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL (D.L-0.2)	BDL (D.L-0.2)	0.2	1
Sulphates as SO42-	120	14.2	73.5	208	114	212	355	200	400
Iron as Fe	0.07	0.05	0.05	0.09	0.07	BDL (D.L -0.01)	BDL (D.L -0.01)	0.3	No Relaxation
Nitrate as NO3	2.45	BDL (D.L-1.0)	3.65	2.15	2.78	2.02	3.63	45	No Relaxation

Fluoride as F	0.34	0.25	0.27	0.38	0.27	0.56	0.64	1	1.5
Manganese as Mn	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L -0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	BDL (D.L-0.05)	0.1	0.3

Results of Surface Water sampling Analysis in 2 locations				
Parameter	**Unit**	**SW1 (Cheyyar River Up Stream)**	**SW2 (Cheyyar River Down Stream)**	**Surface water standard s (IS 2296 Class-A)**
Odour	-	Agreeable	Agreeable	-
Turbidity	NTU	<1.0	<1.0	1
pH at 25 ˚C	-	7.72	7.89	6.5-8.5
Electrical Conductivity	µs/cm	252	243	-
Total Dissolved Solids	mg/l	152	146	500
Total hardness as CaCO3	mg/l	94.2	92.2	-
Calcium as Ca	mg/l	23.4	22.2	300
Magnesium as Mg	mg/l	8.57	8.81	-
Calcium as CaCO3	mg/l	58.5	55.5	-
Magnesium Hardness as CaCO3	mg/l	35.7	36.7	-
Total alkalinity as CaCO3	mg/l	35.6	35.1	-
Chloride as Cl-	mg/l	142	138	250
Free Residual chlorine as Cl-	mg/l	BDL (D.L - 0.2)	BDL (D.L - 0.2)	-
Sulphates as SO42-	mg/l	15.6	18.9	400
Iron as Fe	mg/l	BDL (D.L - 0.01)	BDL (D.L - 0.01)	0.3
Nitrate as NO3	mg/l	BDL(DL-1.0)	BDL(DL-1.0)	20
Fluoride as F	mg/l	0.28	0.32	1.5
Manganese as Mn	mg/l	BDL (D.L-0.05)	BDL (D.L-0.05)	0.5
Chemical Oxygen Demand	-	BDL (D.L – 4.0)	BDL (D.L – 4.0)	-
Bio Chemical Oxygen Demand 3 Days at 27oc	-	BDL (D.L – 2.0)	BDL (D.L – 2.0)	-
Total Suspended Solids	-	BDL (D.L – 2.0)	BDL (D.L – 2.0)	-
Dissolved Oxygen	-	6.2	6.3	-

All the values were found to be within permissible limits.

11.2.3 NOISE ENVIRONMENT

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

Noise monitoring results					
S. No	**Location**	**Day equivalent**	**Night equivalent**	**Day equivalent limits by CPCB**	**Night equivalent limits by CPCB**
1	Project Site	46.6	39.3	75	70
2	Palli	48.9	39.7	55	45
3	Cholavaram	47.8	40.6		
4	Mangalam	46.8	39.1		
5	Vadaelapakkam	50.3	40.3		
6	Perumbulimedu	44.9	37.6		
7	Vadapoondipattu	47.2	38.0		

11.2.4 SOIL ENVIRONMENT

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

Results of Soil sampling Analysis in 7 locations								
Parameters	S1	S2	S3	S4	S5	S6	S7	Unit
pH at 25 °C	6.92	6.87	6.95	7.01	7.44	6.92	7.86	-
Electrical Conductivity	78.73	46.65	60.97	42.58	132	48.95	59.58	µmhos/cm
Dry matter content	94.28	97.44	96.57	97.05	95.57	97.32	95.29	%
Water Content	5.72	2.56	3.43	2.95	4.43	2.68	4.71	%
Organic Matter	0.58	0.74	0.81	1.18	0.98	0.76	1.05	%
Soil texture	Clay Loam	Loam	Loam	Loam	Sandy Loam	Loam	Silty Clay Loam	-
Grain Size Distribution								
i. Sand	30.72	48.65	34.45	40.06	66.72	49.55	6.75	%
ii. Silt	42.34	31.66	45.49	36.55	23.76	31.69	62.09	%
iii. Clay	26.94	19.69	20.06	23.39	9.52	18.76	31.16	%
Phosphorous as P	1.27	1.65	1.22	2.1	1.98	1.24	1.23	mg/kg
Sodium as Na	552	432	389	423	475	432	796	mg/kg
Potassium as K	320	632	589	658	295	630	405	mg/kg

Total Nitrogen	205	145	182	232	164	149	302	mg/kg
Total Sulphur	BDL (D.L.0 .02)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	BDL (D.L.0.0 2)	%
Water Holding Capacity	45	40	42	44	41	40	38	Inches/ foot
Porosity	19.7	20.7	22.2	24.1	20.9	22.6	20.5	%

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.

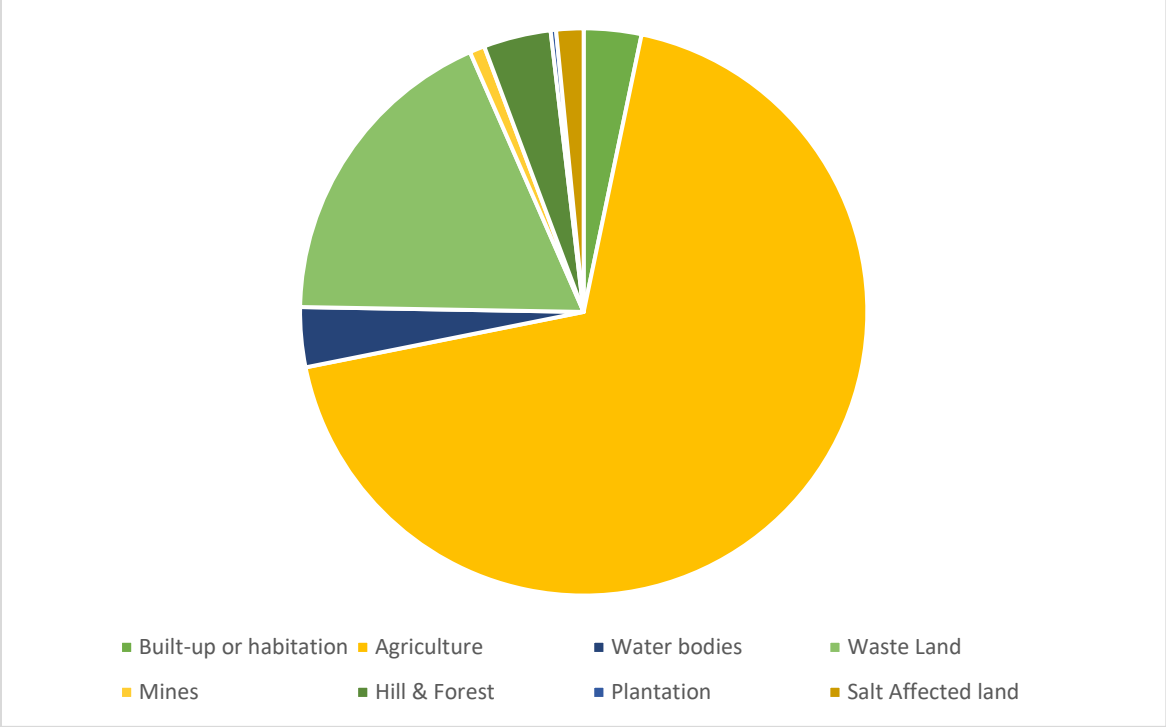
11.2.6 LAND USE

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:

Major Land Use Units of the Study Area in Percentage

S. No	1st Level Classification	Area in (sq.km)	Percentage (%)	2nd Level Classification	Area in (sq.km)	Percentage (%)
1	Built-up or habitation	12.0	3.82	Residential	11.72	3.73
				Commercial/Industrial	0.28	0.09
2	Agriculture	165.0	52.51	Crop land	160.18	50.98
				fallow land	4.82	1.53
3	Water bodies	56.25	17.94	Reservoir/Lake /Pond	50.34	16.06

				River/Stream	5.91	1.88
4	Waste Land	17.15	5.42	Open without scrub	4.6	1.46
				Open with scrub	12.55	3.99
5	Mines	1.9	0.60	Mines	1.9	0.60
6	Plantation	60.5	19.25	Plantation	60.5	19.25
7	Salt Affected land	1.36	0.43	Salt Affected land	1.36	0.43
Total		**314.16**	**100**		**314.16**	**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 villages in the study area namely Palli, Cholvaram, Mangalam, Vadaelapakkam, Perumbulimedu, and Vadapoondipattu Villages. Discussions were held with the people from nearby locality to study the social and economic conditions prevailing in the area. The expert also visited nearby hospitals and primary health centres. The following observations were made.

Primary schools are available in many villages. For hospital facilities, people in the locality have to go to hospital in Cheyyar which is about 2 - 5 km (SE) from the lease area. Major schools with higher secondary and senior secondary schools are located in Palli. The major Palli Union located in the area is Palli. Facilities like petrol pump stations, ATM facility are available in Palli.

11.2.8 HYDROGEOLOGY OF THE LEASE AREA

The hydrological and hydrogeological pattern of the study area is studied 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 52 m

BGL. Hence, there will not be any major impact due to mining on water levels or ground water levels in the area.

11.2.10 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

11.2.10.1 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 52 m BGL. Other than quarrying of minerals, no other change will be done since there is no dumping. To prevent soil erosion during monsoon season, garland drain will be constructed with silt traps. At the mine closure stage, 2.70.5 Ha of lease area will be left as rain water harvesting pond. 0.78.5 Ha will be developed with green belt. For this, plants like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indiaca are selected. A total of 785 trees are planned to be planted. Spacing will be 3m x 3m.

11.2.10.2 WATER ENVIRONMENT: IMPACT AND MITIGATION MEASURES

There is no water body present inside the lease area. The entire water requirement for the project is 5.0 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 52 m (BGL), there will not be any seepage. However, the rain water percolation and collection of water from seepage shall be less than 300lpm and it shall be pumped out periodically by a stand by diesel powered Centrifugal pump motivated with 7.5 H.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 Canal – 220m (W), Kulam – 18m (SE) (50m safety distance has been provided), 120m (NE), Tank – 450m (S), 615m(NE), 715m(NW), 860m (W), 1.2km (N), Cheyyar river– 6.0Km (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

11.2.10.3 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.

11.2.10.4 AIR ENVIRONMENT: IMPACT AND MITIGATION MEASURES

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

The major impacts are Dust emission due to drilling, blasting and transportation. The major mitigation measures include Using Wet drilling methods, Allowing drilling only with PPE, Carrying out blasting only during specified times, Avoiding blasting during unfavorable 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 7.5m barriers in the lease area.

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

11.2.10.5 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 MoEFCC limits since the baseline value is low.

11.2.10.6 VIBRATION: IMPACT AND MITIGATION MEASURES

Impacts

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

Mitigation measures

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

11.2.10.7 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 5,00,000 for CER activities. This amount will be subjected to change after public hearing.

11.2.10.8 OCCUPATIONAL HEALTH

Impacts

Dust generation due to drilling and blasting, Noise generation due to drilling and blasting, unexpected accidents. Continuous exposure to dust causes Pneumonia, Tuberculosis, Rhematic arthritis and Segmental Vibration, Short term impact will be lack of sleep, high blood pressure and heart ailments. Long term exposure may lead

to partial or permanent deafness, Risks include fly rocks, cracks or fissures due to improper mining methods

Mitigation measures

- Using dust suppression measures like water spraying on roads to reduce rise of air pollutants
- Providing green belt for air pollutant and noise attenuation
- Ensuring slope stability
- Employing only trained professionals for blasting
- Conducting Pre-Medical Examination for employees before inducting
- Conducting periodical Medical Examination once in 6 months.
- Making all first aid kits available in mines office
- Keeping fire extinguisher in place
- Educating the employees about how to handle unexpected happenings
- Posting information containing emergency contact numbers in mines office
- By adopting all these measures, the safety of the employees working in the quarry will be ensured.

11.2.10.9 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 51.50 lakhs is allocated.

11.2.10.10 PROJECT BENEFITS

Financial benefits

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

Social benefits

- This project provides employment to 33 people directly. Local people will be hired for unskilled labour.
- Through CSR, nearby schools, hospitals will be benefitted.
- For CSR, INR 5,00,000 is allocated.
- Based on the demand of the people during public hearing, further funds will be allocated, if necessary.

Various aspects of mining activities were considered and related impacts were evaluated. Considering all the possible ways to mitigate the environmental concerns Environmental Management Plan was prepared and 24.58 lakhs for the five 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/26-29/RA 0478. *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 and Gravel Quarry over an extent 3.52.0 Ha, while total cluster area of 8.97.0 Ha at TO25B0108TN5538111N, Dated:11/01/2026.

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

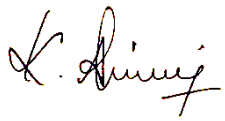
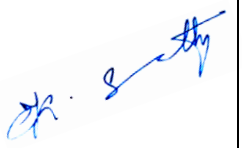
EIA Coordinator Name: M. Manikandan

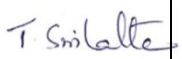
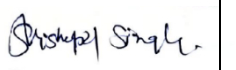
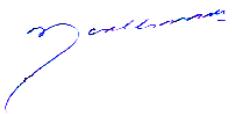
M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

Period of involvement: March 2025 to May 2025.

Contact information:

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Kottamettupatty, Omalur,
Salem, Tamil Nadu – 636 455

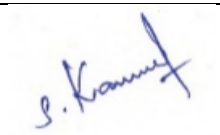
S. No.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and Date
1	*AP*	*Dhanalakshmi Ramanathan*	*Assessment of existing air quality, Impact of the project on ambient air and suggested mitigation measures for air pollution.* *Period: March 2025 to May 2025.*	
2	*WP*	*Abirami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

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

TM- EC

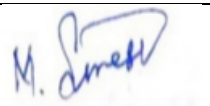
S.No	*Name of TM (EC)*	*Sector(s) proposed*	*Approved (to work under)*	*Period of involvement*	*Type of work*	*Signature*
1.	*Abirami*	*1*	*Manikandan Manickam*	*Period: March to May 2025.*	*Associated with EIA Coordinator in overall preparation of Draft EIA/EMP report.*	

TM- FAE:

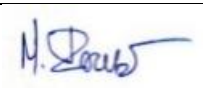
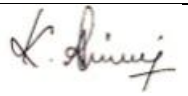
S. No	**Name of TM (FAE)**	**Functional Area**	**Approved FAE (to work under)**	**Period of involvement**	**Type of work**	**Signature**
1	Kamaraj S	LU	Srilatha Thiruveedhula	Period: March to May 2025	Associated with Experts in preparing Land use map based on satellite imagery, Land use classification and analysis, Impact prediction on surrounding land environment.	

		HG	Ashok Kumar Rajagopal	*Period: March to May 2025.*	Associated with Experts in studying hydrogeological pattern of study area, Studying ground water and the impact of the project on ground water	
2	B.J.Sampatkkumar	SE	Saraswathy K	*Period: March to May 2025.*	Assisted by the Expert in preparation of socio-economic report.	
		SC	Shishupal Singh	*Period: March to May 2025.*	Assisted by the Expert in interpretation of soil sampling and their quality involved in the project.	
3	Mownica Balaji	NV	Dhanalakshmi Ramanathan	*Period: March to May 2025.*	Associated with the expert team in suggesting control measures for noise and Ground Vibration.	

		AP	Dhanalakshmi Ramanathan		Associated with expert team in assessing existing air quality, impact of the project on ambient air and suggesting mitigation measures for air pollution	
4	Balasubramani G	NV	Dhanalakshmi Ramanathan	*Period: March to May 2025.*	Associated with the expert in selection of base line monitoring stations, Review of Noise quality results, Review of emission sources – drilling, blasting, excavation and transportation, Identification of impacts on environment, identification of remedial measures and input to EIA preparation	

		Geo	Valliappan Meyyappan		Associated with the expert in preparing Geological map.	
5	Suresh Mani	LU	Srilatha Thiruveedhula	*Period: March to May 2025.*	Associated with Experts in preparing Land use map based on satellite imagery, Land use classification and analysis, Impact prediction on surrounding land environment.	
		HG	Ashok Kumar Rajagopal		Associated with Experts in studying hydro-geology pattern of study area, studying water and the impact of the project on ground water.	
6	Asan Ali S	NV	Srilatha Thiruveedhula	*Period: March to May 2025.*	Associated with the expert in monitoring and analysis of blast induced ground vibration in order	

					to develop the site-specific equation for its prediction, monitoring of fly rocks & air blast (noise), preparation of SOP's for the safety blasting practice in the mines.	
		Geo	Valliappan Meyyappan		Associated with the Qualified Person & Experts in preparing Geological map, assessing stability of quarry slope faces and dump, management plan for mine stability and after use of mining quarry and geological features of the area during mine plan preparation.	

7	Prabu M	Geo	Valliappan Meyyappan	*Period: March to May 2025.*	Associated with Experts and involved in Field Investigations, Mapping /Geo-referencing	
8	Abirami Kaliyaperumal	RH	S V Prashant	*Period: March to May 2025.*	Associated with experts and involved in the identification risk and hazard, suggesting safeguard measures.	
9	Dhanalakshmi Ramanathan	AQ	Srilatha Thiruveedhula	*Period: March to May 2025*	Involved with Expert team and involved in calculating air emission values using Meteorological data and Providing inputs for running modelling (ISCT3, AERMOD).	
10	Manikandan Manickam	AP	Ramadoss N	*Period: March to May 2025.*	Associated with expert team in assessing existing air quality, impact	

					of the project on ambient air and suggesting mitigation measures for air pollution	
		WP	Abirami Kaliyaperumal		Involved in the identification of source of water and waste generation, suggesting treatment for safe disposal of wastewater	

ANNEXURE-1

File No: 12578

Government of India

Ministry of Environment, Forest and Climate Change

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

***

Dated: **11/01/2026**

To,

POORNIMA TAMILOLI
W/o.Tamiloli, No.1/62, North Street, Panrutti, Kanchipuram District - 631604. TAMIL NADU,
mptgroup524@gmail.com

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

Sir/Madam,

Sub: SEIAA, Tamil Nadu - Proposed Rough Stone and Gravel quarry lease over an extent of 3.52.00 Ha at S.F.No. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A AND 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu by Tmt.T. Poornima - under project category – "B1" and Schedule S.No.1(a) "Mining of Minerals Projects" of EIA Notification, 2006, as amended – **ToR issued along with Public Hearing** - preparation of EIA report – Regarding.

Ref:

1. Online proposal No. SIA/TN/MIN/547653/2025 Dated 10/08/2025.
2. Your application submitted for Terms of Reference dated: 12.08.2025.
3. Minutes of the 615th SEAC meeting held on 09.09.2025.
4. Minutes of the 893rd SEIAA meeting held on 24.09.2025.
5. Minutes of the 940th SEIAA meeting held on 02.01.2026.

2. The particulars of the proposal are as below:

(i) TOR Identification No.	TO25B0108TN5538111N
(ii) File No.	12578
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Proposed Rough Stone and Gravel Quarry of Tmt.T.Poornima
(viii) Name of Company/Organization	POORNIMA TAMILOLI
(ix) Location of Project (District, State)	TIRUVANNAMALAI, TAMIL NADU
(x) Issuing Authority	SEIAA
(xi) Applicability of General Conditions	no

(xii) Applicability of Specific Conditions no

1.In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.
2.The above-mentioned proposal has been considered by SEIAA in the meeting held on 02.01.2026. 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 **Tmt.T. Poornima** under the provisions of EIA Notification, 2006 and as amended thereof.
5.The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.
6.The Terms of Reference with public hearing to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
7.This issues with the approval of the Competent Authority.
8.The TORs with public hearing prescribed shall be valid for a period of three years from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

Copy To

1. The Additional Chief Secretary to Government, Environment & Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. Monitoring Cell, IA Division, Ministry of Environment, Forests &CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
5. The District Collector, Tiruvannamalai District.
6. Stock File.

Annexure 1

Specific Terms of Reference s for (Mining Of Minerals)

1. Seac Conditions - Site Specific

S. No	Terms of Reference
1.1	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**

S. No	Terms of Reference
	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.

2. Seac Standard Conditions

S. No	Terms of Reference
2.1	1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following: (i) Original pit dimension (ii) Quantity achieved Vs EC Approved Quantity (iii) Balance Quantity as per Mineable Reserve calculated. (iv) Mined out Depth as on date Vs EC Permitted depth (v) Details of illegal/illicit mining (vi) Violation in the quarry during the past working. (vii) Quantity of material mined out outside the mine lease area (viii) Condition of Safety zone/benches (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m. 2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site. 3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc. 4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry. 5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report. 6. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site. 7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC. 8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth

S. No	Terms of Reference
	of the working is extended beyond 30 m below ground level. 9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent. 10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site. 11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences. 12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines, 13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines? 14. Quantity of minerals mined out. · Highest production achieved in any one year · Detail of approved depth of mining. · Actual depth of the mining achieved earlier. · Name of the person already mined in that leases area. · If EC and CTO already obtained, the copy of the same shall be submitted. · Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches. 15. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone). 16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc., 17. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan. 18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same. 19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment. 20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. 21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study. 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

S. No	Terms of Reference
	and the surrounding habitations in the mind. 23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted. 24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given. 25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided. 26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered. 27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided. 28. Impact on local transport infrastructure due to the Project should be indicated. 29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity. 30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific. 31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible. 32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner. 33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner 34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed. 37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed 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

S. No	Terms of Reference
	dimensions may be given with time frames for implementation. 39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given. 40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc. 41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB. 42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine. 43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

3. Seiaa Specific Conditions :

S. No	Terms of Reference
3.1	After detailed discussions, the Authority taking into account, the clarification furnished by the DD of G&M Department, accepts the recommendation of SEAC and decided to grant **Terms of Reference (ToR) along with Public Hearing for the quantity of 7,42,225 m^3 of Rough Stone & 57,976 m^3 of Gravel upto the depth of 52m BGL with the annual peak production shall not exceed 1,52,490 m^3 of Rough Stone & 34,176 m^3 of Gravel** 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 & normal conditions & the SEIAA Standard conditions.

4. Seiaa Standard Conditions :

S. No	Terms of Reference
4.1	**<u>Cluster Management Committee</u>** 1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry. 2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc., 3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines. 4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network. 5. The committee shall deliberate on risk & emergency management plan, fire safety & evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan. 6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the Environmental policy devised shall be given in detail in the EIA Report.

S. No	Terms of Reference
	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. **Agriculture & Agro-Biodiversity** 9. Impact on surrounding agricultural fields around the proposed mining Area. 10. Impact on soil flora & vegetation around the project site. 11. Details of type of vegetation including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP. 12. The Environmental Impact Assessment should study the agro-biodiversity, agro- forestry, horti-cultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem. 13. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services. 14. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock. **Forests** 15. The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife. 16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna. 17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection. 18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site. **Water Environment** 19. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period. 20. Erosion Control measures. 21. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas. 22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir. 23. The project proponent shall study and furnish the details on potential fragmentation impact on natural Environment, by the activities. 24. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts. 25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components. 26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites. 27. The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including Environmental stress. c) Sediment geochemistry in the surface streams. **Energy**

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

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994

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

S. No	Terms of Reference
	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 Wildlifeand copy furnished
1.18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost
1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered
1.20	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)
1.21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in

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

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

S. No	Terms of Reference
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

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Validity unknownSignature valid

Digitally Signed by : A Rahul Nadh IAS
Member Secret SEIAA

Date: 11/01/2026

ANNEXURE-2

ANNEXURE I

நக.எண்.165/கனிமம்/2025

துணை இயக்குநர் அலுவலகம்,
மாவட்ட ஆட்சியர் அலுவலக
வளாகம், திருவண்ணாமலை.

நாள். 08.07.2025

குறிப்பாணை

பொருள்: கனிமங்களும் சுரங்கங்களும் – சிறுகனிமம் – சாதாரண கற்கள் – திருவண்ணாமலை மாவட்டம் செய்யார் வட்டம் – பல்லி கிராம புல எண்கள். 496/2, 98/1A மற்றும் பலவற்றின் மொத்தப்பரப்பு 3.91.0 ஹெக்டேர் பரப்பில் – சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்கக்கோரி **திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி** என்பவர் 5 ஆண்டுகளுக்கு அனுமதிகோரி 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்.19–ன் கீழ் விண்ணப்பம் செய்தது – அறிக்கைகள் வரப்பெற்றது – புலத்தணிக்கை செய்யப்பட்டது – 3.52.0 ஹெக்டேர் பரப்பினை தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்கதிட்டம் மற்றும் சுற்றுச்சூழல் **தாக்க மதிப்பீட்டு ஆணைய தடையின்மை** சான்று பெற்று சமர்ப்பிக்க கோருதல் தொடர்பாக.

பார்வை:

1. திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி என்பவரின் விண்ணப்பம் நாள். 26.02.2025.
2. இவ்வலுவலக கடிதம் இதே எண். நாள். 26.02.2025.
3. வட்டாட்சியர், செய்யார் அவர்களின் ந.க.ஆ1/1036/2025, நாள்.28.03.2025.
4. வருவாய் கோட்ட அலுவலர் (மு.கூ.பொ.) செய்யார் அவர்களின் ந.க.அ5/1046/2025, நாள். 02.07.2025.
5. உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்) அவர்களின் புலத்தணிக்கை நாள். 05.07.2025.
6. மற்றும் உரிய ஆவணங்கள்

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பார்வையில் காணும் கடிதங்களின் மீது கனிவான கவனம் வேண்டப்படுகிறது.



2) திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்வி கிராம புல எண்கள். 496/2 (1.47.50), 98/1A (0.12.0), 98/1B (0.16.0), 98/1C (0.36.0), 98/1D1 (0.12.50), 98/2A (0.64.0), 98/2B (0.65.0) மற்றும் 98/3B (0.39.0) ஆகிய 3.91.0 ஹெக்டேர் பரப்பில் சாதாரண கற்கள் / கிராவல் மண் குவாரி செய்ய 5 ஆண்டுகளுக்கு குத்தகை உரிமம் வழங்கக்கோரி திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி என்பவர் உரிய ஆவணங்களுடன் 26.02.2025 அன்று விண்ணப்பம் அளித்துள்ளார்.

3. மேற்கண்ட விண்ணப்பம் தொடர்பாக வட்டாட்சியர் செய்யார், வருவாய் கோட்ட அலுவலர் (மு.கூ.பொ), செய்யார், உதவி புவியியலாளர் மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்) திருவண்ணாமலை ஆகியோர் புலத்தணிக்கை மேற்கொண்டு அளித்த அறிக்கையின் அடிப்படையில் புல எண்.98/3B நீங்கலாக திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்வி கிராம புல எண்கள்.496/2 (1.47.50), 98/1A (0.12.0), 98/1B (0.16.0), 98/1C (0.36.0), 98/1D1 (0.12.50), 98/2A (0.64.0) மற்றும் 98/2B (0.65.0)-ல் மொத்தப்பரப்பு 3.52.0 ஹெக்டேரில் மட்டும் திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி என்பவருக்கு கிராவல் மண் மற்றும் சாதாரண கற்குவாரி உரிமம் வழங்க ஏற்கனவே குவாரி பணி செய்யாத புலமாக இருப்பினும் மனுதாரரின் கோரிக்கையின்படி 5 ஆண்டு காலத்திற்கு கீழ்க்கண்ட நிபந்தனைகட்கு உட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்:

1. அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5மீ. மற்றும் அரசு நிலங்களுக்கு 10 மீ. பாதுகாப்பு இடைவெளியும் விட வேண்டும்.
2. புல எண். 496/1ல் அமைந்துள்ள பாட்டை புறம்போக்கு நிலத்திற்கு 10 மீ. பாதுகாப்பு இடைவெளி விட வேண்டும்.
3. புல எண்.98/3B-ற்கு கிழக்கே 14மீ தொலைவில் புல எண்.112ல் அமைந்துள்ள குளத்திற்கு 50 மீ. பாதுகாப்பு இடைவெளி விட வேண்டும்.
4. புல எண். 496/1ல் மின் தாழ்வழுத்த மின்கம்பங்கள் நடப்பட்டு இணைப்பு வழங்காமல் உள்ள நேர்வில் மின்கம்பி இணைப்பு வழங்கும் பட்சத்தில் மின்கம்பி பாதையில் இருந்து 50 மீ. பாதுகாப்பு இடைவெளி விட வேண்டும்.
5. பொதுமக்களுக்கும் அருகிலுள்ள நிலங்களுக்கும் எவ்வித பாதிப்பும் ஏற்படுத்தக்கூடாது.



6. குவாரிப்பணி தொடங்குவதற்கு முன்பாக குவாரியை சுற்றி முள் கம்பிவேலி அமைத்து குவாரிப்பணி தொடங்க வேண்டும்.

7. முறைப்படியும், விஞ்ஞானப்பூர்வமாகவும் குவாரிப்பணி செய்ய வேண்டும்.

8. சான்றிதழ் பெறப்பட்ட போர்மென், வெடிப்பாளர் மற்றும் சுரங்க மேலாளர் மூலம் முறையே குவாரிப்பணி செய்யப்பட வேண்டும்.

9. குவாரிப்பணி தொடங்குவதற்கு முன் சுரங்க பாதுகாப்பு இயக்குநர், சென்னை அவர்களுக்கு தகவல் தெரிவிக்கப்பட வேண்டும்.

10. பாறைகளைத் தகர்க்க தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி 36 (1-A) (b)-ல் தெரிவிக்கப்பட்டுள்ள வழிமுறைகளை பின்பற்றி குவாரிப்பணி செய்ய வேண்டும்.

5. இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை அவர்களின் 10.08.2020 நாளிட்ட கடிதத்துடன் இணைத்து வரப்பெற்ற அரசாணை எண்.169 தொழில் துறை (எம்.எம்.சி-1) நாள் 04.08.2020-ன்படி பட்டா புலங்களில் கிராவல், சாதாரண வகை கற்கள் ஆகிய சிறுகனிம உரிமம் வழங்கும் நேர்வுகளில் நடவடிக்கை எடுக்க விதி 19 மற்றும் 33-ல் மாவட்ட ஆட்சியருக்கு வழங்கப்பட்ட அதிகாரம் தற்போது சம்மந்தப்பட்ட உதவி/துணை இயக்குநர் அவர்களுக்கு மாற்றி வழங்க உத்திரவிடப்பட்டுள்ளது.

6. எனவே, வட்டாட்சியர் செய்யார், வருவாய் கோட்ட அலுவலர் (மு.கூ.பொ), செய்யார், உதவி புவியியலாளர் மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்) திருவண்ணாமலை ஆகியோரின் பரிந்துரை, நிபந்தனைகள் மற்றும் மனுதாரரின் கோரிக்கையின் அடிப்படையில் திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராம புல எண்கள்.496/2 (1.47.50), 98/1A (0.12.0), 98/1B (0.15.0), 98/1C (0.36.0), 98/1D1 (0.12.50), 98/2A (0.64.0) மற்றும் 98/2B (0.65.0)-ல் மொத்தப்பரப்பு 3.52.0 ஹெக்டேரில் 1959-ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண்.19-ன்படி மேற்கண்ட நிபந்தனைகளுக்குட்பட்டு 5 (ஐந்து) வருட காலத்திற்கு திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி கிராவல் / சாதாரண கற்கள் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

7. மேலும், தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959, விதி 41-ன்படி குவாரிப் பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90



தினங்களுக்குள் சமர்ப்பிக்குமாறு மனுதாரரைக் கேட்டுக் கொள்ளப்படுகிறது. மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959-ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், விதி எண்.42-ன்படி சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருவண்ணாமலை.

8/7/21

பெறுநர்
திருமதி.T.பூர்ணிமா
க/பெ.தமிழ்ஒளி,
எண்.1/62 வடக்குத் தெரு,
பண்ருட்டி, காஞ்சிபுரம்.

நகல்.
1. தலைவர், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை
2. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை-32.

ANNEXURE-3

APPROVAL MINING PLAN

MINING PLAN FOR PALLI ROUGH STONE AND GRAVEL QUARRY

(Prepared Under Rule 19, 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959)

LOCATION OF THE QUARRY LEASE APPLIED AREA

STATE	:	TAMIL NADU
DISTRICT	:	TIRUVANNAMALAI
TALUK	:	CHEYYAR
VILLAGE	:	PALLI
S.F.NOS	:	496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A AND 98/2B
EXTENT	:	3.52.0Ha

FOR

APPLICANT

Tmt.T.Poornima,
W/o.Tamiloli,
No.1/62, North Street,
Panrutti, Kanchipuram District.

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 CHETTYPATTY,
KOTTAMETTUPATTY,
OMALUR, SALEM, TAMIL NADU – 636 455
NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110
CONTACT: 97502 23535, 94446 54520
Email: infoglobalmining@gmail.com, globalminingsolutionssalem@gmail.com

T.Poornima,
W/o.Tamiloli,
No.1/62, North Street,
Panrutti, Kanchipuram District.

CONSENT LETTER FROM THE APPLICANT

The Mining Plan in respect of **Rough Stone and Gravel** quarry over an extent of 3.52.0Hectares of Patta land in S.F.Nos.496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State has been prepared by

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

I request to the Deputy Director, Department of Geology and Mining, Tiruvannamalai 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

T. Poornima.

T.Poornima

Place: Kanchipuram
Date: 09.07.2025

T.Poornima,
W/o.Tamiloli,
No.1/62, North Street,
Panrutti, Kanchipuram District.

DECLARATION

The Mining Plan in respect of **Rough Stone and Gravel** quarry over an extent of 3.52.0 Hectares of Patta land in S.F.Nos.496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai 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

T. Poornima.

T.Poornima

Place: Kanchipuram
Date: 09.07.2025

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 and Gravel** quarry lease over an extent of 3.52.0 Hectares of Patta land in S.F.Nos.496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State applied by Tmt.T.Poornima, for fresh quarry lease.

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

Certified

Signature of Qualified Person.

C.Natarajan, M.Sc., M.Phil.,

Qualified Person

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

Place: Salem

Date: 10.07.2025

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

திருவண்ணாமலை

CERTIFICATE

Certified that, in preparation of Mining Plan for **Rough Stone and Gravel** quarry over an extent of 3.52.0Hectares of Patta land in S.F.Nos.496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State for Tmt.T.Poornima, covers all the provisions of Mines Act, Rules and Regulations etc. made there under and whenever specific permission are required, the applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

Certified
Signature of Qualified Person.

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

Place: Salem
Date: 10.07.2025



CERTIFICATE

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

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

Accordingly I prepared this Mining Plan in respect of Rough Stone and Gravel quarry lease applied for an extent of 3.52.0Ha of (Patta land) in S.F.Nos.496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, by Tmt.T.Poornima, 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: 10.07.2025

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MINING PLAN FOR MINOR MINERALS

ROUGH STONE AND GRAVEL

Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.

(PREPARED UNDER RULE 19(1), 41 and 42 OF TNMMCR 1959)

1.0 Introduction and Executive Summary;

1. The present Mining Plan is prepared for Tmt.T.Poornima, W/o.Tamiloli, No.1/62, North Street, Panrutti, Kanchipuram District.
2. The application was processed by the Deputy Director, Department of Geology and Mining, Tiruvannamalai, and passed an order vide Rc.No.165/Kanimam/2025 Dated 08.07.2025 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 and Gravel** over an extent of 3.52.0 hectares of Patta lands in S.F.Nos.496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District of Tamil Nadu State for a period of five years.
3. Accordingly, Mining Plan is prepared under the provisions of rule 19(1), 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) A 7.5 meters of safety distance should be left out for the adjacent patta lands and 10 meters of safety distance should be provided to the adjoining government land while quarrying operation.
   b) The applicant should be leave 10m safety distance to Pattai Poramboke land situated in S.F.No.496/1.

c) The applicant should be leave 50m safety distance for Kulam, situated in S.F.No.112 at a distance of 14m on the eastern side of S.F.No.98/3B while quarrying operation.

d) LT Pole have been installed in the S.F.No.496/1 and no connection have been provided. Incase of Power line route, if an electric wire connection is provided, 50m safety distance should be maintain.

e) Applicant should not cause any hindrance to the adjacent land and public while carrying quarrying operations.

f) Barbed wire fencing should be erected all along the boundary of the lease granted area before quarrying operation.

g) Quarrying operation should be done proper scientific method only.

h) Quarrying operation should be done through certified Blaster, Foreman and Mines Manager.

i) Before the start of quarrying operation the applicant should be inform to the Director of Mines safety, Chennai region.

j) The quarrying operation should be carried out following the instruction given in Rule of 36(1-A) (b) of Tamil Nadu Minor Mineral Concession Rules, 1959, for demolition of rock.

4. Geological Resources is estimated at 48,36,700Ts of Rough stone and 1,40,704Ts of gravel formation and Mineable Reserves is estimated at 20,41,118.75Ts of Rough Stone and 1,15,952Ts of gravel formation 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 20,41,118.75Ts of Rough Stone and 1,15,952Ts of gravel formation 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 appoint 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 10km 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	:	Palli
b.	Name of the Panchayat Union	:	Cheyyar
c.	The proposed total Minable Reserves	:	20,41,118.75Ts of Rough Stone, 1,15,952Ts of gravel formation
d.	The proposed quantity of reserves (level of production) for Five years to be mined is(Recoverable reserves)	:	20,41,118.75Ts of Rough Stone, 1,15,952Ts of gravel formation
e.	Total extent of the area	:	3.52.0Ha
f.	Proposed Period of mining	:	Five Years
g.	Existing depth	:	It is fresh quarry lease applied area
h.	Proposed Depth of mining	:	52m 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 is 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. 24,12,000/- Rs. 82,00,000/- Rs. 6,70,000/- Total Project cost= **Rs. 1,12,82,000/-**
l.	The area applied for lease is bounded by Fourteen corners and the coordinates are clearly marked in plate no II.		

Corners	Co- ordinates		Distance between the corners
	Latitude	Longitude	
1	12° 42' 59.46"N	79° 35' 46.33"E	1-2 = 171.6m
2	12° 43' 04.85"N	79° 35' 47.79"E	2-3 = 90.6m
3	12° 43' 04.11"N	79° 35' 50.70"E	3-4 = 104.2m
4	12° 43' 03.73"N	79° 35' 54.15"E	4-5 = 35.0m
5	12° 43' 02.59"N	79° 35' 53.96"E	5-6 = 36.2m
6	12° 43' 02.73"N	79° 35' 52.76"E	6-7 = 13.0m
7	12° 43' 02.76"N	79° 35' 52.31"E	7-8 = 77.2m
8	12° 43' 00.37"N	79° 35' 51.52"E	8-9 = 47.8m
9	12° 42' 59.78"N	79° 35' 52.99"E	9-10 = 33.6m

	10	12° 42' 58.75"N	79° 35' 52.67"E	10-11 =	39.0m
	11	12° 42' 58.44"N	79° 35' 53.93"E	11-12 =	80.6m
	12	12° 42' 55.87"N	79° 35' 53.39"E	12-13 =	140.2m
	13	12° 42' 57.82"N	79° 35' 49.20"E	13-14 =	48.2m
	14	12° 42' 59.36"N	79° 35' 49.56"E	14-1 =	97.1m

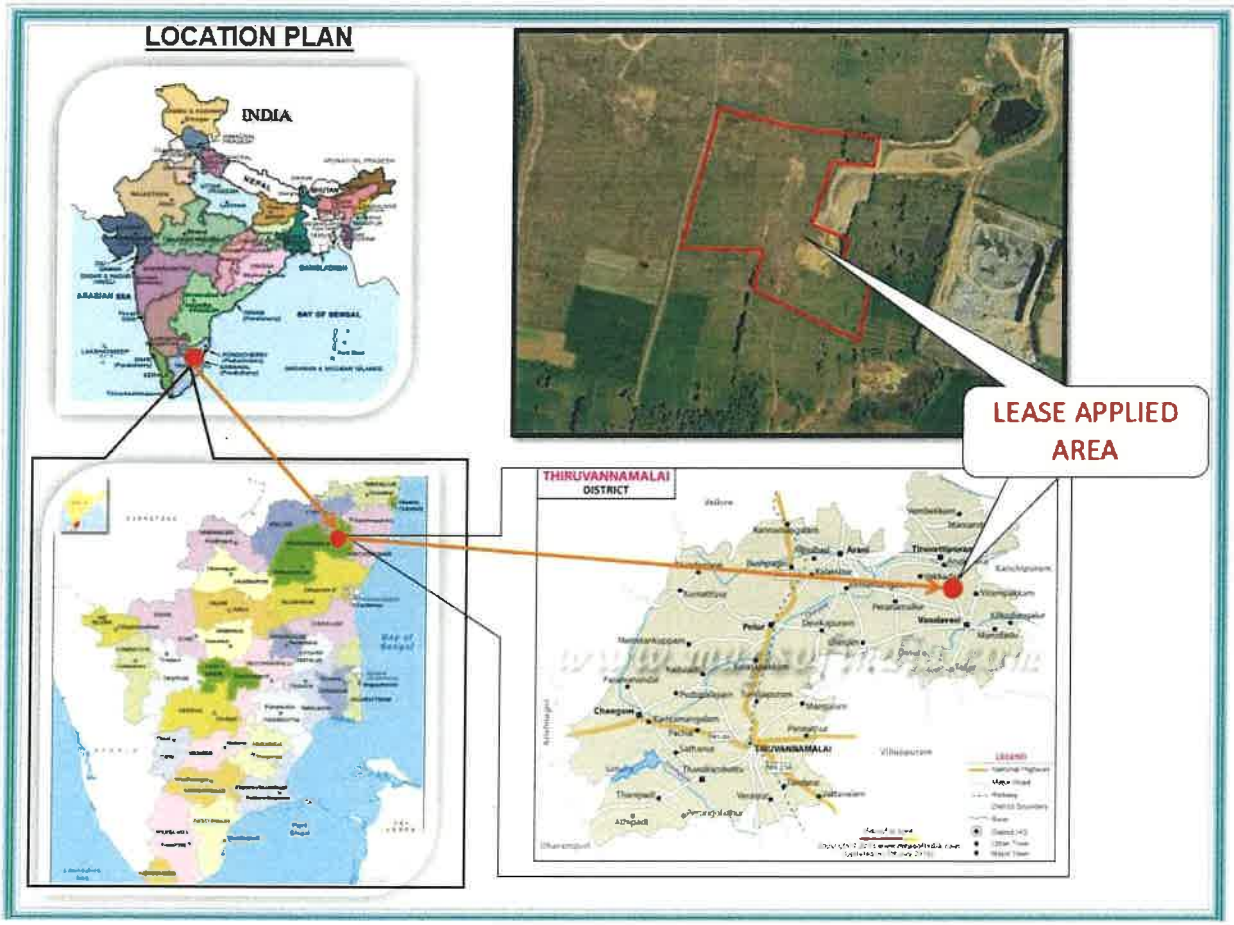
2.0 General Information:

2.1	a.	Name of the Applicant	:	Tmt.T.Poornima,
	b.	Address of the Applicant with phone No and e-mail id if any	:	W/o.Tamiloli, No.1/62, North Street, Panrutti, Kanchipuram District. Pin Code-631 604. Cell No. 9360176009
	c.	Status of the Applicant	:	Individual
2.2	a.	Mineral Which the applicant intends to mine	:	Rough Stone and Gravel.
	b.	Precise area communication letter No.	:	Precise area communication letter received from the Deputy Director, Department of Geology and Mining, Tiruvannamalai, vide Rc. No.165/Kanimam/2025 Dated 08.07.2025.
	c.	Period of permission / lease granted	:	The Deputy Director, Department of Geology and Mining, Tiruvannamalai, 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.

துணை இயக்குநர் அலுவலகம்
திருவண்ணாமலை
சுரங்கத்துறை மற்றும் புவியியல்

3.0 Location:

S.No		Details of the Area:
1	Corner Coordinates	Latitude : 12°42'55.87"N to 12°43'04.85"N Longitude : 79°35'46.33"E to 79°35'54.15"E
2	Toposheet Number	57 P/10
3	The altitude of the area	118m (MSL)
4	Extent	3.52.0Ha
5	Survey No	496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B
6	Village	Palli
7	Taluk	Cheyyar
8	District	Tiruvannamalai
9	State	Tamil Nadu



a.	Classification of the Area (Ryotwari / poramboke / others)	:	Patta land
b.	Ownership / Occupancy of the Applied area (Surface rights)	:	It is patta land registered in the name of the Applicant vide patta no. 2504. Please refer annexure no.IV.
c.	Toposheet No. with Latitude and Longitude	: : :	Topo Sheet No: 57 P/10 Latitude : 12°42'55.87"N to 12°43'04.85"N Longitude : 79°35'46.33"E to 79°35'54.15"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 Vadapoondipattu - Somavaram village road on Northern side of the area. The Nearest Railway line is Kanchipuram – Chengalpattu line which is about 18Km on the Northeastern side of the area.

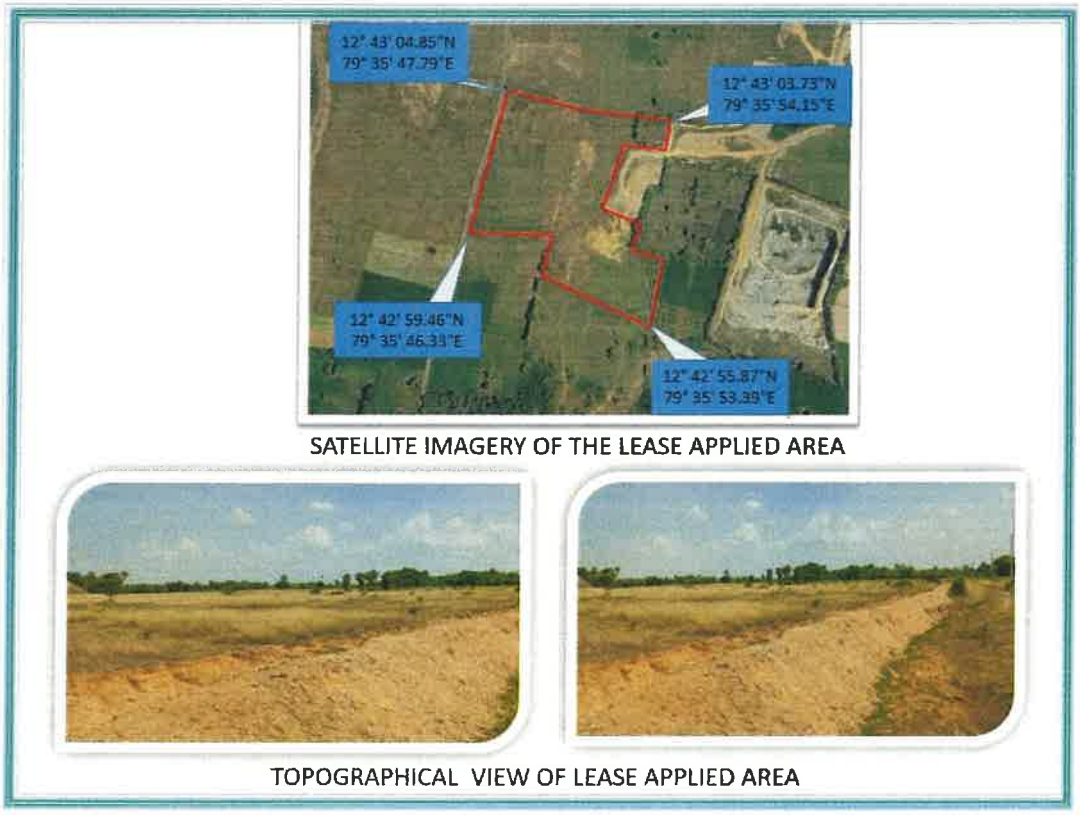


Fig. Location of the lease Applied Area



PART - A

4.0 Geology and Mineral Reserves:

4.1	a.	Topography	:	➢ The area applied for quarry lease is exhibits almost plain topography covered by Gravel formation. The massive Charnockite formation is noticed below 2m (avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 118m (maximum) from MSL. ➢ No major river is found nearby the lease applied area. ➢ Water table is found at a depth of 72m in summer and 69m in rainy seasons. ➢ Temperature of the area is reported to be 18^{0}C to a maximum of 42^{0}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 N45^{0}E –S45^{0}W with dipping towards SE60^0. The general geological succession of the area is given as under.

				AGE — **ROCK TYPE** Recent - Gravelly soil 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 outcrops within the lease applied area.
4.3	a.	Estimation of Reserves	:	The Geological and Recoverable reserves are estimated by cross sectional method. Totally three sections have been drawn, one section drawn length wise as (X-Y), 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 52m below ground level only. Availability of Resources is given below.

Table No-1

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m^3	Rough stone in m^3	Bulk Density	Gravel in Ts	Geological Resources of Rough stone in Ts
XY-AB	I	104	197	2	40976	-	2.00	81952	-
	II	104	197	5	-	102440	2.75	-	281710.00
	III	104	197	5	-	102440	2.75	-	281710.00
	IV	104	197	5	-	102440	2.75	-	281710.00
	V	104	197	5	-	102440	2.75	-	281710.00
	VI	104	197	5	-	102440	2.75	-	281710.00
	VII	104	197	5	-	102440	2.75	-	281710.00
	VIII	104	197	5	-	102440	2.75	-	281710.00
	IX	104	197	5	-	102440	2.75	-	281710.00
	X	104	197	5	-	102440	2.75	-	281710.00
	XI	104	197	5	-	102440	2.75	-	281710.00
	Total				**40976**	**1024400**	-	**81952**	**2817100.00**
XY-CD	I	108	136	2	29376	-	2.00	58752	-
	II	108	136	5	-	73440	2.75	-	201960.00
	III	108	136	5	-	73440	2.75	-	201960.00
	IV	108	136	5	-	73440	2.75	-	201960.00
	V	108	136	5	-	73440	2.75	-	201960.00
	VI	108	136	5	-	73440	2.75	-	201960.00
	VII	108	136	5	-	73440	2.75	-	201960.00
	VIII	108	136	5	-	73440	2.75	-	201960.00
	IX	108	136	5	-	73440	2.75	-	201960.00
	X	108	136	5	-	73440	2.75	-	201960.00
	XI	108	136	5	-	73440	2.75	-	201960.00
	Total				**29376**	**734400**	-	**58752**	**2019600.00**
Grand Total					**70352**	**1758800**	-	**140704**	**4836700.00**

Gravel Formation : 1,40,704Ts

The Geological Resources of Rough stone : 48,36,700Ts



b. Mineable Reserve

The mineable reserve calculated by deducting 7.5m, 10m & 50m safety distance and bench loss.

Table No-2

section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m^3	Mineable Reserves in m^3	Bulk Density	Gravel in (Ts)	Mineable Reserves of Rough stone in (Ts)
XY-AB	I	96	178	2	34176	-	2.00	68352	-
	II	93	172	5	-	79980	2.75	-	219945.00
	III	88	162	5	-	71280	2.75	-	196020.00
	IV	83	152	5	-	63080	2.75	-	173470.00
	V	78	142	5	-	55380	2.75	-	152295.00
	VI	73	132	5	-	48180	2.75	-	132495.00
	VII	68	122	5	-	41480	2.75	-	114070.00
	VIII	63	112	5	-	35280	2.75	-	97020.00
	IX	58	102	5	-	29580	2.75	-	81345.00
	X	53	92	5	-	24380	2.75	-	67045.00
	XI	48	82	5	-	19680	2.75	-	54120.00
	Total				**34176**	**468300**	-	**68352**	**1287825.00**
XY-CD	I	100	119	2	23800	-	2.00	47600	-
	II	97	113	5	-	54805	2.75	-	150713.75
	III	92	103	5	-	47380	2.75	-	130295.00
	IV	87	93	5	-	40455	2.75	-	111251.25
	V	82	83	5	-	34030	2.75	-	93582.50
	VI	77	73	5	-	28105	2.75	-	77288.75
	VII	72	63	5	-	22680	2.75	-	62370.00
	VIII	67	53	5	-	17755	2.75	-	48826.25
	IX	62	43	5	-	13330	2.75	-	36657.50
	X	57	33	5	-	9405	2.75	-	25863.75
	XI	52	23	5	-	5980	2.75	-	16445.00
	Total				**23800**	**273925**	-	**47600**	**753293.75**
Grand Total					**57976**	**742225**	-	**115952**	**2041118.75**

The mineable reserve is computed as 20,41,118.75Ts of Rough stone, 1,15,952Ts of Gravel formation upto a depth 52m 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 of 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 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. 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.	:	The overburden in the form of Gravel, after the excavation of Gravel and Rough stone will be directly loaded into tipper to the needy crushers/other buyers for road project and construction works for filling and leveling of low lying areas.

The Yearwise Production and Development Table

Table No –3

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m^3	Rough stone in m^3	Bulk Density	Gravel in (Ts)	Mineable reserve of Rough stone in (Ts)
I	XY-AB	I	96	178	2	34176		2.00	68352	-
		II	93	172	5	-	79980	2.75	-	219945.00
		III	78	162	5	-	63180	2.75	-	173745.00
Total						**34176**	**143160**	-	**68352**	**393690.00**
II	XY-AB	III	10	162	5	-	8100	2.75		22275.00
	XY-CD	I	100	119	2	23800	-	2.00	47600	-
		II	97	113	5	-	54805	2.75	-	150713.75
		III	92	103	5	-	47380	2.75	-	130295.00
		IV	87	93	5	-	40455	2.75	-	111251.25
Total						**23800**	**150740**	-	**47600**	**414535.00**
III	XY-AB	IV	83	152	5	-	63080	2.75	-	173470.00
		V	78	142	5	-	55380	2.75	-	152295.00
	XY-CD	V	82	83	5	-	34030	2.75	-	93582.50
Total						**23800**	**152490**	-	-	**419347.5**
IV	XY-CD	VI	77	73	5	-	28105	2.75	-	77288.75
		VII	72	63	5	-	22680	2.75	-	62370.00
	XY-AB	VI	73	132	5	-	48180	2.75	-	132495.00
		VII	68	122	5	-	41480	2.75	-	114070.00
		VIII	20	112	5	-	11200	2.75	-	30800.00
Total							**151645**	-	-	**417023.75**
V	XY-AB	VIII	43	112	5	-	24080	2.75	-	66220.00
		IX	58	102	5	-	29580	2.75	-	81345.00
		X	53	92	5	-	24380	2.75	-	67045.00
		XI	48	82	5	-	19680	2.75	-	54120.00

	XY-CD	VIII	67	53	5	-	17755	2.75	-	48826.25
		IX	62	43	5	-	13330	2.75	-	36657.50
		X	57	33	5	-	9405	2.75	-	25863.75
		XI	52	23	5	-	5980	2.75	-	16445.00
Total						**-**	**144190**	-	**-**	**396522.50**
Grand Total						**57976**	**742225**	-	**115952**	**2041118.75**

The applicant has proposed to carry out 20,41,118.75Ts of Rough stone 1,15,952Ts of Gravel formation upto a depth of 52m below ground level for the period of five years.

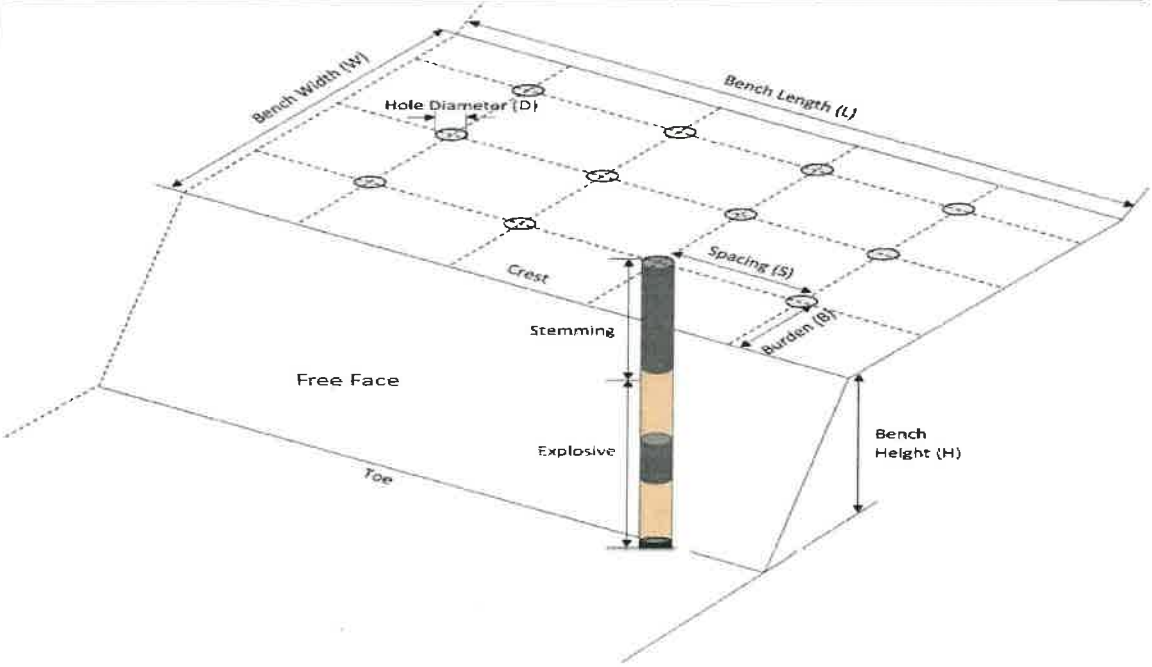


<table>
<tr><td>5.5</td><td></td><td>Machineries to be used</td><td></td><td></td></tr>
<tr><td></td><td>a.</td><td>Drilling</td><td>:</td><td>It is proposed to use following machineries for quarrying rough stone
<table>
<tr><th>S.No</th><th>Type</th><th>Nos</th><th>Dia Hole mm</th><th>Make</th><th>Motive power</th></tr>
<tr><td>1</td><td>Jack hammer</td><td>5</td><td>32</td><td>Atlas Copco</td><td>Compressed air</td></tr>
<tr><td>2</td><td>Compressor</td><td>2</td><td>-</td><td>Atlas Copco</td><td>Diesel Drive</td></tr>
</table></td></tr>
<tr><td></td><td>b.</td><td>Loading</td><td>:</td><td>Excavator of 0.90m^3 bucket capacity (with Rock breaker attachment) (2No).</td></tr>
<tr><td></td><td>c.</td><td>Transportation</td><td>:</td><td>Tipper 5Nos (10/20Ts) capacity.</td></tr>
<tr><td>5.6</td><td></td><td>Disposal of Overburden</td><td>:</td><td>The overburden in the form of Gravel, after the excavation gravel will be directly loaded into tipper to the needy buyers for road project and construction works for filling and leveling of low lying areas.</td></tr>
<tr><td>5.7</td><td></td><td>Brief Note on Conceptual Mining Plan for the entire lease period</td><td>:</td><td>Conceptual Mining Plan is prepared with an object of five years of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructures etc.
Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc.
Ultimate Pit dimension is given as under,
<table>
<tr><th colspan="4">Ultimate Pit dimension</th></tr>
<tr><th>Pit No</th><th>Length (max) in (m)</th><th>Width (Avg) in (m)</th><th>Depth(max) in(m)</th></tr>
<tr><td>I</td><td>196</td><td>138</td><td>52</td></tr>
</table>
Afforestation has been proposed on all along the boundary barrier by planting trees.
All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms.</td></tr>
</table>

6.0 Blasting:

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

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



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



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

Number of holes	:	454
Powder factor	:	6Ts/Kg of explosives
Total explosive required	:	227Kg slurry explosives
Charge / hole	:	0.5Kg
Blasting time	:	12-2 Pm

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

7.0 <u>Mine Drainage</u>:

7.1	Depth of Water table	:	The ground water table is reported as 72m below ground level. In the proposed mining plan only 52m (below ground level) depth has been envisaged as workable depth for safe & economic quarrying for the entire lease period. Hence the quarrying operation may not affect the ground water.
7.2	Arrangement and Places where the mine water is finally proposed to be discharged	:	The ground water may not rise immediately in this type of mining. However, the rain water percolation and collection of water from the seepage shall be less than 300lpm and it shall be pumped about periodically by a stand by diesel powered Centrifugal pump motivated with 7.5H.P.Motor. The quality of water is potable and it is not contaminated with any hazardous things. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water stored in the old pit will also be used for plantation purposes

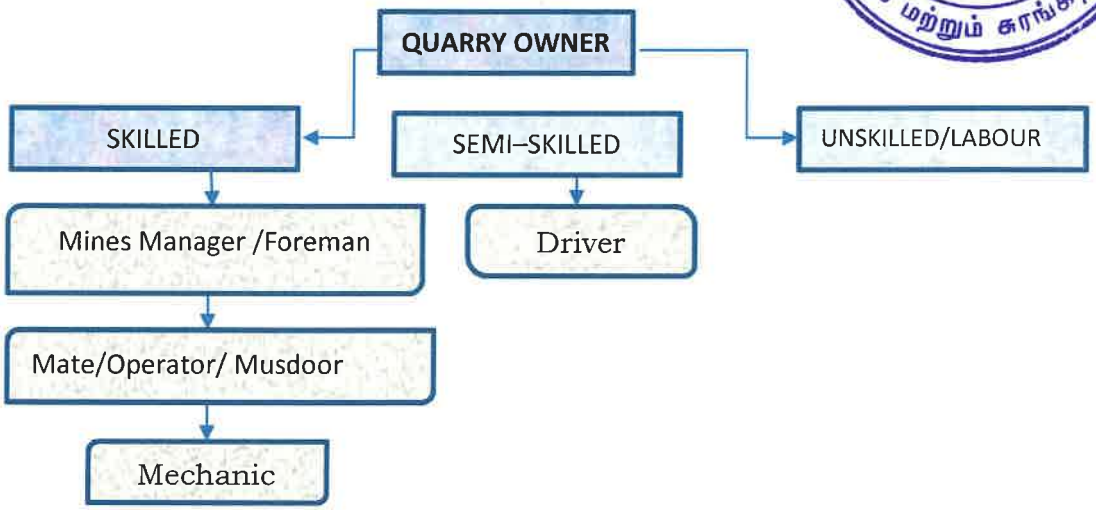
8.0 Other Permanent Structures:

8.1	Habitations / Village	:	There are no habitations within a radius of 300m.
8.2	Power lines (HT/LT)	:	There is no LT/HT power lines within a radius of 50m.
8.3	Water bodies (River, Pond, Lake, Odai, Channel etc.,)	:	There is Kulam situated on Southeast side and is 50m Safety distance maintained from Kulam and another Kulam situated on east side and is 120m away from the area. There is Tank situated on south side and is 440m away from the area. There is Canal passing on west side and is 220m away from the area.
8.4	Archeological / Historical Monuments	:	There are no Archeological / Historical Monuments within a radius of 300m.
8.5	Road (NH, SH, Village Road etc)	:	The Nearest National Highway (NH-132B) Kanchipuram – Chengalpattu which is about 17.0Km on the Northeastern side of the area. The State Highway (SH-116) Kanchipuram – Vandavasi is about 7.5Km on eastern 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 is no Reserved Forest / Wild Life Sanctuary etc., 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	12No.
		Mechanic	1 No.
2.	Semi–skilled	Driver	5 No.
3.	Unskilled	Labours	12Nos
		Total =	33Nos

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

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

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

9.2		Welfare Measures		
	a.	Drinking Water	:	Packaged drinking water is available from the nearby approved water vendors in Palli village which is about 0.6km on southeastern 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 8Km (SW) in Cheyyar 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 almost plain topography covered by Gravel formation. 2. Quarrying operation is proposed up to a depth of 52m below ground level for the proposed mining plan period. 3. Fluctuation of Water table in this area is in between 72m and 69m 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-4

Sl. No.	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)
1.	Quarrying Pit	Nil	2.70.5
2.	Infrastructure	Nil	0.01.0
3.	Roads	Nil	0.02.0
4.	Green Belt	Nil	0.78.5
5.	Unutilized	3.52.0	Nil
	Total =	**3.52.0**	**3.52.0**

10.2	Water Regime	:	Water table in this area is noticed at a depth of 72m and presently, in the proposed mining plan only 52m (below ground level) depth 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.

துணை இயக்குநர் அலுவலகம் ★ திருவண்ணாமலை ★ புவியியல் மற்றும் சுரங்கத்துறை

10.5	Human Settlement	:	The nearest habitations with the population is given as under. Table No-5

S. No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population
1.	Chithathur	3.3km - NE	1000
2.	Vadapoondipattu	1.2km - NW	800
3.	Palli	0.6Km – SE	500
4.	Mangalam	0.8Km-SW	200

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 quarry operation.
10.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	:	In the proposed mining plan 52m (below ground level) depth 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 52m depth, fencing will be constructed around the quarried pits to prevent inherent entry of the public and cattle.
10.11	Program for Afforestation	:	The 7.5m, 10m & 50m 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 7850Sqm area is proposed to use under afforestation by planting 942nos 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 (600000/1Ha)= 2. First aid room and accessories 3. Labour Shed 4. Sanitary Facility **Total=**	: : 	 Rs. 21,12,000 Rs.1,00,000 Rs.1,00,000 Rs.1,00,000 **Rs. 24,12,000/-**
	B. Operational Cost: 1. Machineries 2. Fencing cost **Total**	 : : :	 Rs.80,00,000- Rs. 2,00,000 **Rs.82,00,000/-**

	C.EMP Cost:	:	Budget Provision for the entire quarrying period. Air Quality Sampling = Rs. 40,000/- Water Quality Sampling = Rs. 40,000/- Noise Monitoring = Rs. 20,000/- Ground vibration test = Rs. 20,000/-
	Expenditure 1. Drinking water facility 2. Sanitary Arrangements 3. Safety kids 4. Water sprinkling 5. Afforestation **Total=**	: : : : : :	Rs.1,50,000/- Rs. 50,000/- Rs. 50,000/- Rs. 1,50,000/- Rs. 1,50,000/- **Rs. 6,70,000/-**
	Total Project Cost (A+B+C)	:	**Rs. 1,12,82,000/-**
	CSR Cost(2% of Total Project Cost)	:	**Rs. 2,25,640/-**

11.0 Mine Closure Plan:

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

12.0 Any Other Details Intend to Furnish by the Applicant:

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

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

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

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

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

Prepared by

C.Natarajan, M.Sc.,M.Phil.,

Qualified Person

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

Place : Salem
Date : 10.07.2025

This Mining Plan Is Approved
Subject to the Conditions/Stipulation
Indicated In The Mining Plan Approval
Letter No. 165/mines/2025 Dt: 18.7.2025
Office Of The Deputy Director Of
Geology And Mining, Tiruvannamalai.

18.07.25
Deputy Director,
Geology and Mining,
Tiruvannamalai.

ANNEXURE I

நக.எண்.165/கனிமம்/2025

துணை இயக்குநர் அலுவலகம்,
மாவட்ட ஆட்சியர் அலுவலக
வளாகம், திருவண்ணாமலை.

நாள். 08.07.2025

குறிப்பாணை

பொருள்: கனிமங்களும் சுரங்கங்களும் – சிறுகனிமம் – சாதாரண கற்கள் – திருவண்ணாமலை மாவட்டம் செய்யார் வட்டம் – பல்லி கிராம புல எண்கள். 496/2, 98/1A மற்றும் பலவற்றின் மொத்தப்பரப்பு 3.91.0 ஹெக்டேர் பரப்பில் – சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்கக்கோரி **திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி** என்பவர் 5 ஆண்டுகளுக்கு அனுமதிகோரி 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்.19–ன் கீழ் விண்ணப்பம் செய்தது – அறிக்கைகள் வரப்பெற்றது – புலத்தணிக்கை செய்யப்பட்டது – 3.52.0 ஹெக்டேர் பரப்பினை தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்கதிட்டம் மற்றும் சுற்றுச்சூழல் **தாக்க மதிப்பீட்டு ஆணைய தடையின்மை** சான்று பெற்று சமர்ப்பிக்க கோருதல் தொடர்பாக.

பார்வை:

1. திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி என்பவரின் விண்ணப்பம் நாள். 26.02.2025.
2. இவ்வலுவலக கடிதம் இதே எண். நாள். 26.02.2025.
3. வட்டாட்சியர், செய்யார் அவர்களின் ந.க.ஆ1/1036/2025, நாள்.28.03.2025.
4. வருவாய் கோட்ட அலுவலர் (மு.கூ.பொ.) செய்யார் அவர்களின் ந.க.அ5/1046/2025, நாள். 02.07.2025.
5. உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்) அவர்களின் புலத்தணிக்கை நாள். 05.07.2025.
6. மற்றும் உரிய ஆவணங்கள்

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பார்வையில் காணும் கடிதங்களின் மீது கனிவான கவனம் வேண்டப்படுகிறது.



2) திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்வி கிராம புல எண்கள். 496/2 (1.47.50), 98/1A (0.12.0), 98/1B (0.16.0), 98/1C (0.36.0), 98/1D1 (0.12.50), 98/2A (0.64.0), 98/2B (0.65.0) மற்றும் 98/3B (0.39.0) ஆகிய 3.91.0 ஹெக்டேர் பரப்பில் சாதாரண கற்கள் / கிராவல் மண் குவாரி செய்ய 5 ஆண்டுகளுக்கு குத்தகை உரிமம் வழங்கக்கோரி திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி என்பவர் உரிய ஆவணங்களுடன் 26.02.2025 அன்று விண்ணப்பம் அளித்துள்ளார்.

3. மேற்கண்ட விண்ணப்பம் தொடர்பாக வட்டாட்சியர் செய்யார், வருவாய் கோட்ட அலுவலர் (மு.கூ.பொ), செய்யார், உதவி புவியியலாளர் மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்) திருவண்ணாமலை ஆகியோர் புலத்தணிக்கை மேற்கொண்டு அளித்த அறிக்கையின் அடிப்படையில் புல எண்.98/3B நீங்கலாக திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்வி கிராம புல எண்கள்.496/2 (1.47.50), 98/1A (0.12.0), 98/1B (0.16.0), 98/1C (0.36.0), 98/1D1 (0.12.50), 98/2A (0.64.0) மற்றும் 98/2B (0.65.0)-ல் மொத்தப்பரப்பு 3.52.0 ஹெக்டேரில் மட்டும் திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி என்பவருக்கு கிராவல் மண் மற்றும் சாதாரண கற்குவாரி உரிமம் வழங்க ஏற்கனவே குவாரி பணி செய்யாத புலமாக இருப்பினும் மனுதாரரின் கோரிக்கையின்படி 5 ஆண்டு காலத்திற்கு கீழ்க்கண்ட நிபந்தனைகட்கு உட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்:

1. அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5மீ. மற்றும் அரசு நிலங்களுக்கு 10 மீ. பாதுகாப்பு இடைவெளியும் விட வேண்டும்.
2. புல எண். 496/1ல் அமைந்துள்ள பாட்டை புறம்போக்கு நிலத்திற்கு 10 மீ. பாதுகாப்பு இடைவெளி விட வேண்டும்.
3. புல எண்.98/3B-ற்கு கிழக்கே 14மீ தொலைவில் புல எண்.112ல் அமைந்துள்ள குளத்திற்கு 50 மீ. பாதுகாப்பு இடைவெளி விட வேண்டும்.
4. புல எண். 496/1ல் மின் தாழ்வழுத்த மின்கம்பங்கள் நடப்பட்டு இணைப்பு வழங்காமல் உள்ள நேர்வில் மின்கம்பி இணைப்பு வழங்கும் பட்சத்தில் மின்கம்பி பாதையில் இருந்து 50 மீ. பாதுகாப்பு இடைவெளி விட வேண்டும்.
5. பொதுமக்களுக்கும் அருகிலுள்ள நிலங்களுக்கும் எவ்வித பாதிப்பும் ஏற்படுத்தக்கூடாது.



6. குவாரிப்பணி தொடங்குவதற்கு முன்பாக குவாரியை சுற்றி முள் கம்பிவேலி அமைத்து குவாரிப்பணி தொடங்க வேண்டும்.

7. முறைப்படியும், விஞ்ஞானப்பூர்வமாகவும் குவாரிப்பணி செய்ய வேண்டும்.

8. சான்றிதழ் பெறப்பட்ட போர்மென், வெடிப்பாளர் மற்றும் சுரங்க மேலாளர் மூலம் முறையே குவாரிப்பணி செய்யப்பட வேண்டும்.

9. குவாரிப்பணி தொடங்குவதற்கு முன் சுரங்க பாதுகாப்பு இயக்குநர், சென்னை அவர்களுக்கு தகவல் தெரிவிக்கப்பட வேண்டும்.

10. பாறைகளைத் தகர்க்க தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி 36 (1-A) (b)-ல் தெரிவிக்கப்பட்டுள்ள வழிமுறைகளை பின்பற்றி குவாரிப்பணி செய்ய வேண்டும்.

5. இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை அவர்களின் 10.08.2020 நாளிட்ட கடிதத்துடன் இணைத்து வரப்பெற்ற அரசாணை எண்.169 தொழில் துறை (எம்.எம்.சி-1) நாள் 04.08.2020-ன்படி பட்டா புலங்களில் கிராவல், சாதாரண வகை கற்கள் ஆகிய சிறுகனிம உரிமம் வழங்கும் நேர்வுகளில் நடவடிக்கை எடுக்க விதி 19 மற்றும் 33-ல் மாவட்ட ஆட்சியருக்கு வழங்கப்பட்ட அதிகாரம் தற்போது சம்மந்தப்பட்ட உதவி/துணை இயக்குநர் அவர்களுக்கு மாற்றி வழங்க உத்திரவிடப்பட்டுள்ளது.

6. எனவே, வட்டாட்சியர் செய்யார், வருவாய் கோட்ட அலுவலர் (மு.கூ.பொ), செய்யார், உதவி புவியியலாளர் மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்) திருவண்ணாமலை ஆகியோரின் பரிந்துரை, நிபந்தனைகள் மற்றும் மனுதாரரின் கோரிக்கையின் அடிப்படையில் திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராம புல எண்கள்.496/2 (1.47.50), 98/1A (0.12.0), 98/1B (0.15.0), 98/1C (0.36.0), 98/1D1 (0.12.50), 98/2A (0.64.0) மற்றும் 98/2B (0.65.0)-ல் மொத்தப்பரப்பு 3.52.0 ஹெக்டேரில் 1959-ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண்.19-ன்படி மேற்கண்ட நிபந்தனைகளுக்குட்பட்டு 5 (ஐந்து) வருட காலத்திற்கு திருமதி.பூர்ணிமா க/பெ.தமிழ்ஒளி கிராவல் / சாதாரண கற்கள் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

7. மேலும், தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959, விதி 41-ன்படி குவாரிப் பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90



தினங்களுக்குள் சமர்ப்பிக்குமாறு மனுதாரரைக் கேட்டுக் கொள்ளப்படுகிறது. மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959-ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், விதி எண்.42-ன்படி சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருவண்ணாமலை.

8/7/21

பெறுநர்
திருமதி.T.பூர்ணிமா
க/பெ.தமிழ்ஒளி,
எண்.1/62 வடக்குத் தெரு,
பண்ருட்டி, காஞ்சிபுரம்.

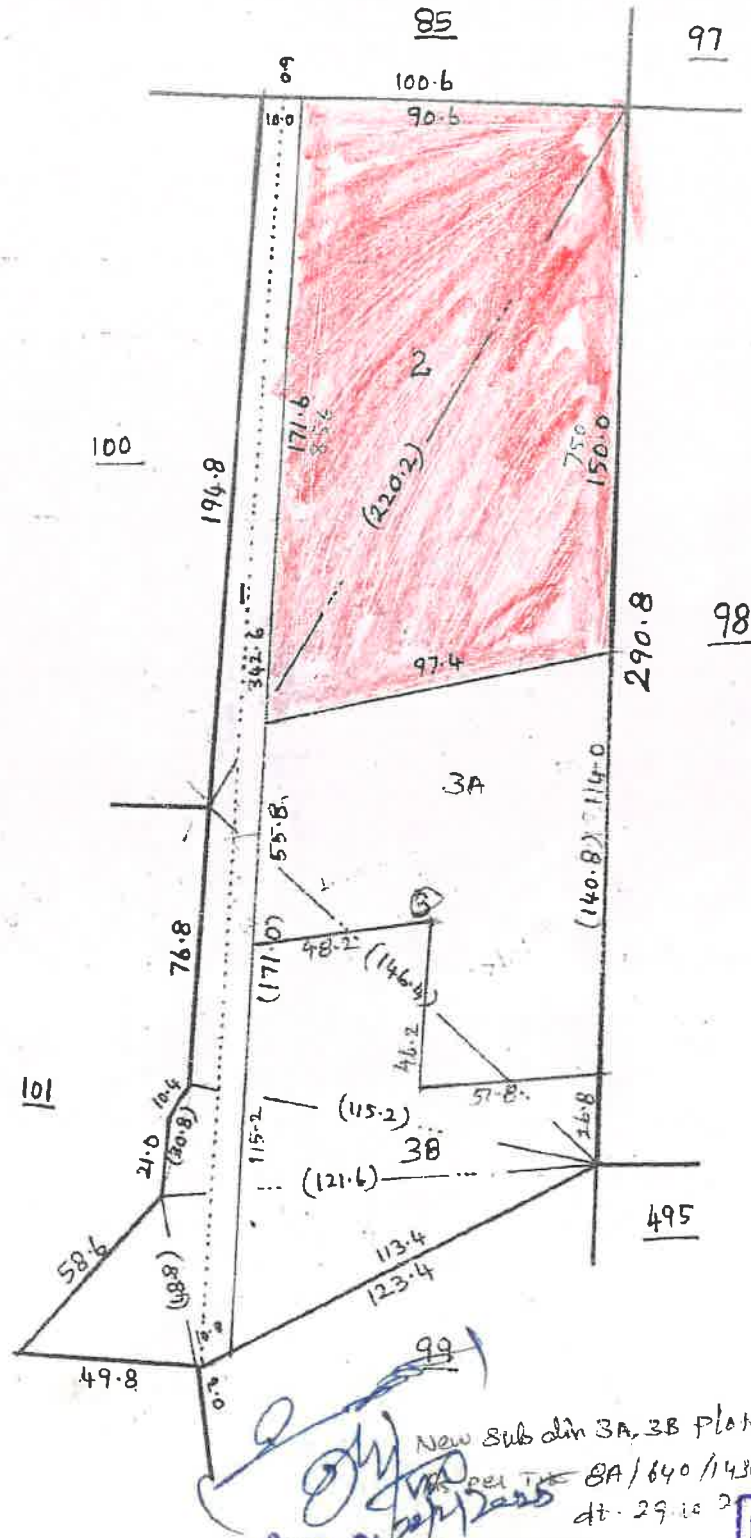
நகல்.
1. தலைவர், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை
2. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை-32.

ANNEXURE II

வட்டம்: செய்யார்

புல எண். 496

பரப்பு: ஹெக்டேர் 3



New Sub div 3A, 3B plated by me
SA/640/1430
dt. 29.12.2

LEASE APPLIED AREA

திருவண்ணாமலை

துணை இயக்குநர் அலுவலகம்

நில அளவை மற்றும் நிலவரித்திட்டம்

துணை இயக்குநர் அலுவலர்

28, மங்கலம், 36, பலவி கிராமம்

செய்யார் வட்டம், தி.மலை மாவட்டம்

அளவு, 1செ.மீ : 200மீ.

31.12.85

துணை இயக்குநர் அலுவலகம்
திருவண்ணாமலை
பதிவியல் மற்றும் சுரங்கத்துறை

துடந்நகாம்

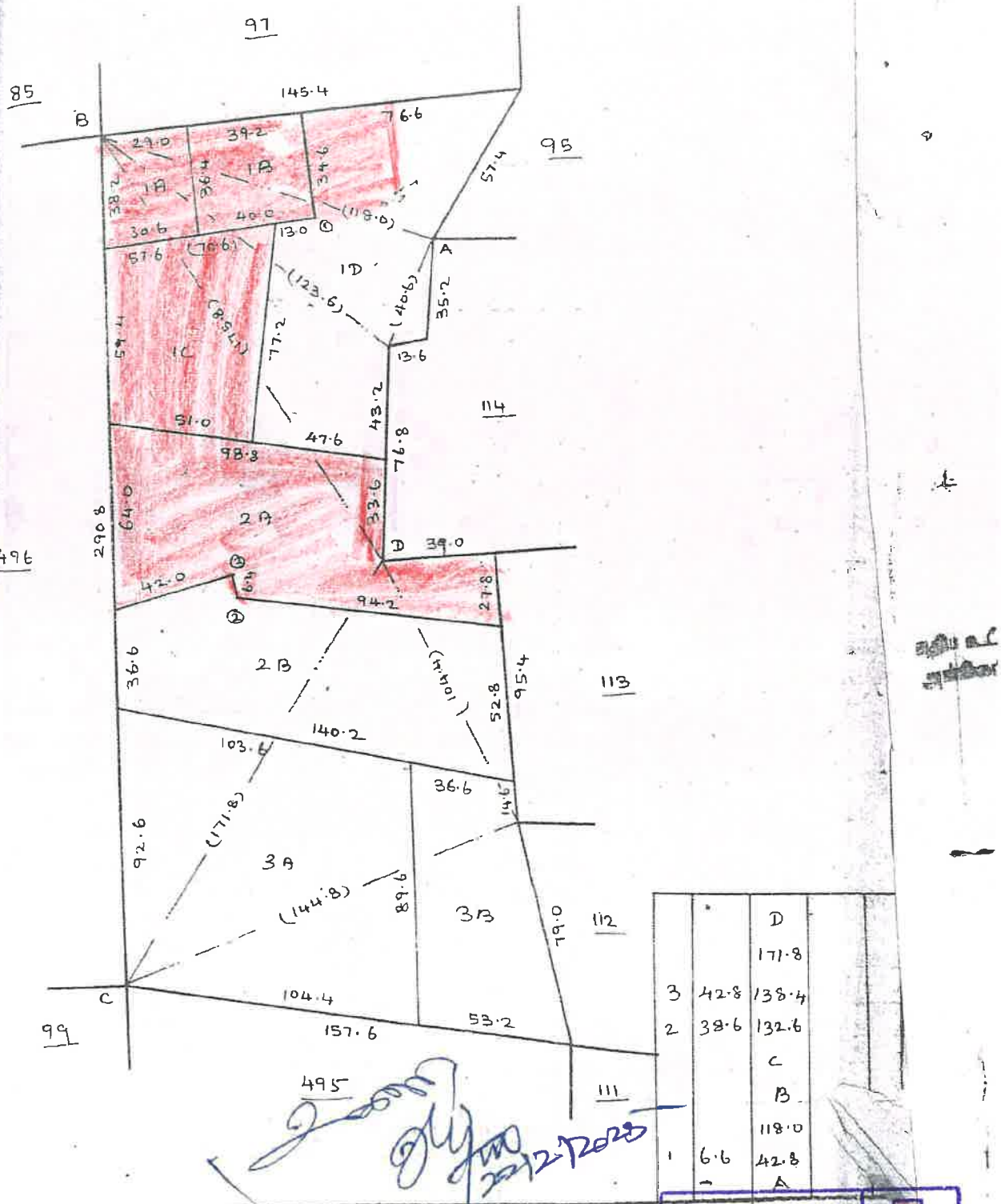
எண்

க்ராட

தெய்யான

புல எண். 98

பரப்பு: ஹெக்டேர் 3



		D
		171.8
3	42.8	138.4
2	38.6	132.6
		C
		B
		118.0
1	6.6	42.8
		A

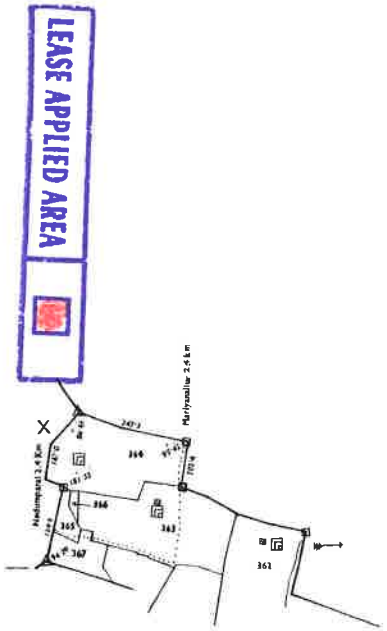
கூறாம் நிறுவாக அலுவலர்
அளவை
செய்யாறு வட்டம் தி.மலை மாவட்டம்

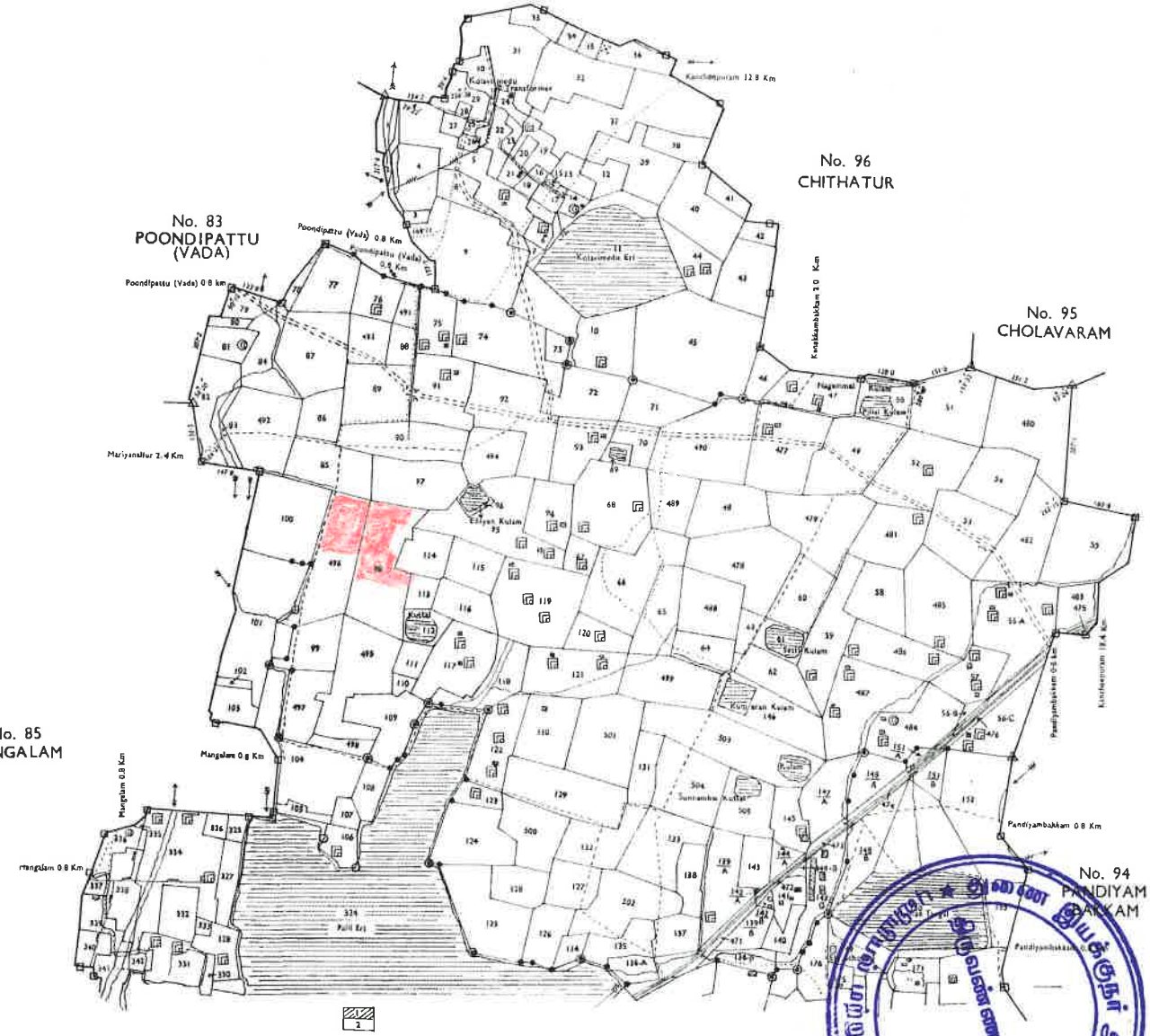
No. 86
PALLI
CHEYYARU TALUK
TIRUVANNAMALAI DISTRICT

Area by { Traverse 718 Hectares 86 . 0 Ares
Fields 719 Hectares 86 . 5 Ares

Scale 1 : 5000

Survey Nos.	Name of details
147/8	Vada Iramanangal
323	Mariamman Koell





ANNEXURE III

ANNEXURE IV

துணை இயக்குநர் அலுவலகம் ★ திருவண்ணாமலை ★ நிலவியல் மற்றும் கனிமத்துறை

தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : திருவண்ணாமலை வட்டம் : செய்யார்

வருவாய் கிராமம் : பல்லி பட்டா எண் : 2504

உரிமையாளர்கள் பெயர்

1. தமிழ்ஒளி மனைவி பூர்ணிமா

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	
496	2	1 - 47.50	3.85	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1A	0 - 12.00	0.30	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1B	0 - 15.00	0.40	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1C	0 - 36.00	0.95	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1D1	0 - 12.50	0.33	--	--	--	--	2025/0103/06/468362---2018/06/04/0001135D ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	2A	0 - 64.00	1.70	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM

98	2B	0 - 65.00	1.70	--	--	--	--	2025/0103/06/468362- -- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	3B	0 - 39.00	1.00	--	--	--	--	2025/0103/06/468362- -- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
		3 - 91.00	10.23					

குறிப்பு :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **06/04/086/02504/40681** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 22-02-2025 அன்று 03:51:07 PM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

1434 – ஆம் பசலியில் திருவண்ணாமலை மாவட்டம் செய்யார் கிராமக் கணக்கு வட்டம் 36 பள்ளி

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர்.	சாகுபடியாளரின் பெயர்.	முதல் போகம்.				
நில அளவை எண்.	உட்பிரிவு எண்.	பரப்பு.	தீர்வை.	ஒரு போகம் அல்லது இரு போகம்.		நிலத்தின் எந்த பகுதி யாவது சாகுபடியாளரால் பயிரிடப்பட்டுள்ளதா.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த பயிர்வகை மாதத்தில் செய்யப்பட்டது.	பயிரின் பெயர்.	பயிராண /அறுவடை யான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரங்களாடு.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
496	2	1.47.5	3.85	1 போக	தாரர்		–	–	–	–	
98	1A	0.12.0	0.30	1 போக	"		–	–	–	–	
98	1B	0.15.0	0.40	1 போக	"		–	–	–	–	
98	1C	0.36.0	0.95	1 போக	"		–	–	–	–	
98	1D	0.12.5	0.33	1 போக	"		–	–	–	–	
98	2A	0.64.0	1.70	1 போக	"		–	–	–	–	
98	2B	0.65.0	1.70	1 போக	"		–	–	–	–	
98	3B	0.39.0	1.00	1 போக	"		–	–	–	–	

/ ஒன்பது ரூ.45/-

ஆகஸ்ட் 2022

கிராம நிர்வாக அலுவலர்
28 மங்கலம், 36. பெண்ணாமை
செய்யார் வட்டம், திருவண்ணாமலை மாவட்டம்

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

எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

இரண்டாம் போகம்.							
எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை மாதத்தில் பயிரிடப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரங்களாடு.	கிராம நிலவரிகள் முறிப்பேடு :- (1) புலன்களின் பகுதிகளில் மட்டும் பயிரிடப்பட்ட விபரங்களை அளவில். (2) வகையறாவில் நிலவார, நிலவர்களின் சாகுபடியில் பரப்பு. (3) முக்கிய மாதத்தில் பாய்ச்சல் தன்மையும்	(அ) வகை. (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலை. (இ) விசாயம் மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம். (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும். (ஊ) விதைக்கப்பட்ட நிகர பயிரில் சேர்க்கப்படாத மரவகைப் பயிர்களும் தோப்புகளும். (எ) நடப்புத் தரிசுகள் (ஏ) இன்ன தரிசு நிலங்கள்.	பயிர் பார்வையிடும் அலுவலர் குறிப்புகள்.
(13)	(14)	(15)	(16)	(17)	(18)	(18அ)	(19)

திருவண்ணாமலை ★ துலை இருப்புக்குழி ★ ராஜராஜரிஷி சாந்தத்துறை

ANNEXURE V

ANNEXURE VI

அ-பதிவேடு

District :Tiruvannamalai Taluk :CHEYYAR Village :PALLI

																நபர்(கள்)
495	1A2	495-1A	P	ர	புஞ்சை		7 - 4	5	2	62	0	46.00	1	25	443-இந்துமதி	
495	1B1	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	23.00	0	60	326-நவனீதம்மாள்	
495	1B2	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	30.00	0	75	37-முருகேசன்	
495	1B3	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	19.00	0	50	374-மன்னார் நாயுடு	
495	1B4	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	27.00	0	70	37-முருகேசன்	
495	1B5	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	33.00	0	85	374-மன்னார் நாயுடு	
495	1C	495-1C		ர	புஞ்சை		7 - 4	5	2	62	0	8.00	0	20	500-ஜெயப்பிரகாஷ்	
495	2	495-2		ர	புஞ்சை		7 - 4	5	2	62	1	16.00	3	05	500-ஜெயப்பிரகாஷ்	
					Total For Survey Number- 495						3	57.0	9	25		
496	1	496-1	P	அ	புறம்போக்கு		0 - 0	0	0	0	0	57.50	0	00	0	பாட்டை
496	2	496-2		ர	புஞ்சை		7 - 4	5	2	62	1	47.50	3	85	278-துலுக்காளம்	
496	3	496-3		ர	புஞ்சை		7 - 4	5	2	62	1	54.50	4	05	41-மரகதாம்பிகை மற்றும் 2 நபர்(கள்)	
					Total For Survey Number- 496						3	59.5	7	90		
497	1	497-1	P	அ	புறம்போக்கு	0	0 - 0	0	0	0	0	17.00	0	00	0	பாட்டை
497	2A	497-2A		ர	புஞ்சை	0	7 - 3	4	3	85	0	46.00	1	80	747-முருகேசன்	
497	2B	497-2B		ர	புஞ்சை	0	7 - 3	4	3	85	0	48.00	1	85	747-முருகேசன்	
497	2C	497-2C		ர	புஞ்சை	0	7 - 3	4	3	85	0	50.00	1	95	747-முருகேசன்	
					Total For Survey Number- 497						1	61.0	5	60		
498	-	498-		ர	புஞ்சை	0	7 - 3	4	3	0	0	50.00	2	00	37-முருகேசன்	
499	1	499-1		ர	புஞ்சை	0	7 - 4	5	2	62	0	7.50	0	20	136-குப்புசாமி	BALLI LAKE WATER MERGIBLE
499	2	499-2	P	அ	புறம்போக்கு	0	0 - 0	0	0	0	0	6.00	0	00	0	ஓடை
499	3	499-3		ர	புஞ்சை	0	7 - 4	5	2	62	0	33.00	0	85	136-குப்புசாமி	BALLI LAKE WATER MERGIBLE
499	4	499-4		ர	புஞ்சை	0	7 - 4	5	2	62	0	43.00	1	10	136-குப்புசாமி	BALLI LAKE WATER MERGIBLE
499	5	499-5		ர	புஞ்சை	0	7 - 4	5	2	62	0	43.00	1	10	42-ஆதிகேசவன்	
499	6A	499-6	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	9.00	0	25	980-கருணாநிதி	
499	6B	499-6	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	17.00	0	45	980-கருணாநிதி	
499	6C	499-6	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	15.00	0	40	980-கருணாநிதி	
499	7	499-7		ர	புஞ்சை	0	7 - 4	5	2	62	0	42.00	1	10	433-அன்னம்மாள் மற்றும் 4 நபர்(கள்)	
499	8	499-8		ர	புஞ்சை	0	7 - 4	5	2	62	0	40.50	1	10	155-இருசன் மற்றும் 1 நபர்(கள்)	
					Total For Survey Number- 499						2	56.0	6	55		
500	-	500-		அ	புறம்போக்கு	0	0 - 0	0	0	0	2	13.50	0	00	0	மற்றவை
501	1A1	501-1A		ர	புஞ்சை	0	7 - 4	5	2	0	0	58.50	1	00	284-செல்வநாயகம்	
501	1A2	501-1A		ர	புஞ்சை	0	7 - 4	5	2	0	0	58.50	1	00	890-ரோல்	
501	1B1	501-1B	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	38.50	1	00	372-அன்பு	BALLI LAKE WATER MERGIBLE
501	1B2	501-1B	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	13.00	0	35	372-அன்பு	WELL SET
501	1B3	501-1B	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	28.00	0	75	372-அன்பு	WELL SET
501	2	501-2		ர	புஞ்சை	0	7 - 4	5	2	62	0	60.50	1	60	586-சரவணன்	
501	3	501-3		ர	புஞ்சை	0	7 - 4	5	2	62	0	60.50	1	60	433-அன்னம்மாள் மற்றும் 4 நபர்(கள்)	WELL SET
					Total For Survey Number- 501						3	17.5	7	30		
502	1A	502-1A		ர	புஞ்சை	0	7 - 4	5	2	62	0	66.50	1	75	863-கண்ணப்பன் மற்றும் 1 நபர்(கள்)	VILLAGE NATHAM IN 45.7 M.
502	1B	502-1B		ர	புஞ்சை	0	7 - 4	5	2	62	0	67.00	1	75	863-கண்ணப்பன் மற்றும் 1 நபர்(கள்)	VILLAGE NATHAM IN 45.7 M.
502	2	502-2		ர	புஞ்சை	0	7 - 4	5	2	62	0	42.00	1	10	863-கண்ணப்பன் மற்றும் 1 நபர்(கள்)	VILLAGE NATHAM IN 45.7 M.

துணை இயக்குநர் அலுவலகம் ★ நிலவியல் மற்றும் சுரங்கத்துறை ★ திருவண்ணாமலை

கிராம நிர்வாக அலுவலர்
28. மாகலம். 36. பலலி கிராமம்

District:Tiruvannamalai Taluk:CHEYYAR Village:PALLI

புல எண்	உட்பிரிவு எண்	புதிய புல எண் - உட்பிரிவு எண்	பகுதி	அரசு - ரயத்துவாரி	நிலத்தின் வகை	பாசன ஆதாரம்	இரு போகமா	மண் வயனமும் ரகமும்	மண் தரம்	திரவை - ஹெக	ரூ	பை	ஹெக்	பை	பட்டா எண்
97	2E1A	97-2E1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	4		47-பாலகிருஷ்ணன்
97	2E1B	97-2E1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.89	0	47-பாலகிருஷ்ணன்
97	2E2	97-2E	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.71	0	02 1783-சுமதி
97	2E3	97-2E	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.53	0	01 47-பாலகிருஷ்ணன்
97	3A	97-3	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	6.50	0	15 47-பாலகிருஷ்ணன்
97	3B1	97-3B	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	21.39	0	56 47-பாலகிருஷ்ணன்
97	3B2	97-3B	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1789-அருள்
97	3C1A1	97-3C1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	8.14	0	21 47-பாலகிருஷ்ணன்
97	3C1B	97-3C1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1787-மகேஷ்
97	3C2	97-3C	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.14	0	00 1783-சுமதி
97	3D1A1	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	21.99	0	58 53-சுந்தரம்
97	3D1B	97-3D1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	6.53	0	01 1788-மகேஷ்
97	3D2	97-3D	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.94	0	02 1698-மலர்விழி
97	4	97-2D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.26	0	01 1783-சுமதி
97	5	97-3C1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.58	0	02 1788-மகேஷ்
97	6	97-3C1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.53	0	04 47-பாலகிருஷ்ணன்
97	7	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1790-கலைவாணி
97	8	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1791-ஸ்ரீதேவி
97	9	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.89	0	02 1792-ஸ்ரீதேவி
97	10	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.93	0	05 53-சுந்தரம்
								TOTAL FOR SURVEY NUMBER-97				2	68.00	7	03
98	1A	98-1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	12.00	0	30 1515-பெருமான்
98	1B	98-1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	15.00	0	40 1515-பெருமான்
98	1C	98-1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	36.00	0	95 1525-பெருமான்
98	1D1	98-1D	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	12.50	0	33 1534-பெருமான்
98	1D2	98-1D	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	52.50	1	38 1561-சரவணராஜ்
98	2A	98-2	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	64.00	1	70 1485-பெருமான்
98	2B	98-2	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	65.00	1	70 1515-பெருமான்
98	3A	98-3	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	94.50	2	50 747-முருகேசன்
98	3B	98-3	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	39.00	1	00 1514-பெருமான்
								TOTAL FOR SURVEY NUMBER-98				3	90.50	10	26
99	1	99-1	P	அரசு	புறம்போக்கு			0 - 0	0	0	00	0	21.00	0	00
99	2A1	99-2A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	45.00	1	17 131-சுப்பு
99	2A2	99-2A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	5.00	0	13 747-முருகேசன்
99	2B	99-2	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	80.50	2	10 747-முருகேசன்
								TOTAL FOR SURVEY NUMBER-99				1	51.50	3	40
100	1A	100-1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	60.50	1	60 1526-சதாசிவம்

துணை இயக்குநர் அலுவலகம்
பதிவியல் மற்றும் சாரங்கத்துறை
திருவண்ணாமலை

29/2/2024

கிராம நிர்வாக அலுவலர்
28. மங்கலம், 36. பலனி கிராமம்
செய்யார் வட்டம் தி.மலை மாவட்டம்

ANNEXURE VII

துணை இயக்குநர் அலுவலகம் திருவண்ணாமலை மாவட்ட காவல் மற்றும் சுரங்கத்துறை

இந்திய அரசாங்கம்
Government of India

பூர்ணிமா தமிழ்ஒளி
Poornima Tamiloli
தந்தை கங்காதரன்
Father Gangadaran



பிறந்த வருடம் Year of Birth 1983
பெண் Female

7373 9646 1341

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

ஆதார்

Unique Identification Authority of India

முகவரி: W/O தமிழ்ஒளி, 1/62,
வடக்குத் தெரு, பன்ருட்டி, பன்ருட்டி
பன்ருட்டி, காஞ்சிபுரம், தமிழ் நாடு
631604

Address: W/O: Tamiloli, 1/62,
NORTH STREET, PANRUTTI,
Panrutti, Kancheepuram,
Panruti, Tamil Nadu, 631604

7373 9646 1341

1947
1800 300 1947

help@uidai.gov.in

www
www.uidai.gov.in

ANNEXURE VIII

CHETTINAD CEMENT CORPORATION LTD.

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

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

All Correspondence to be addressed to
Kumaraguru Muthiah Nagar
PULIYUR CEMENT FACTORY POST 639114
(Karur Taluk Trichy Dt.)

T.RAJU.,B.E.,
MINES MANAGER & DY.GENERAL MANAGER.

22nd September,1987.

CERTIFICATE.

This is to certify that Mr.C.Natarajan has been working as a Geologist from 14-12-1979 to till date. He has been incharge of supervision of day to day functions in respect of Exploration, Preparation of Geological Plans & Sections, Preparation of Mines Plans, and Quality control and other allied mining activities in the following Pits of our Seethainagar Limestone Mines in Anna District.

Name of the Pit.		Average Raising/day.
1. Alambadi Pit.	-	1,700 T.
2. Mallapuram Pit.	-	900 T.
3. Karikkali Pit.	-	150 T.
Total.	-	2,750 T.

He has got nearly Eight years of total experience in our Mines in the above supervisory capacity.

for CHETTINAD CEMENT CORPORATION LTD.,

(T.RAJU).
Mines Manager & Dy. General Manager.

3209.



Annamalai University

Faculty of Science

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

S. Chandrasekhar
Vice-Chancellor.



PLATE NO: I

DATE OF SURVEY : 09.07.2025

APPLICANT:

TMT.T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:

S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

INDEX

Q. L. APPLIED. AREA

TOPO SHEET NO : 57 P/10

LATITUDE :12°42'55.87"N to 12°43'04.85"N

LONGITUDE :79°35'46.33"E to 79°35'54.15"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, M.Sc.(Tech),
QUALIFIED PERSON

PLATE NO: 1A

DATE OF SURVEY : 09.07.2025

APPLICANT:

TMT.T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:

S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

INDEX

TOPO SHEET NO : 57 P/10

LATITUDE :12°42'55.87"N to 12°43'04.85"N

LONGITUDE :79°35'46.33"E to 79°35'54.15"E

Q.L.APPLIED AREA	
300M RADIUS	
500M RADIUS	
1KM RADIUS	
APPROACH ROAD	
CARTTRACK	
PANCHAYAT ROAD	
ODAI	
BARREN LAND	
TREES	
SEASONAL AGRICULTURE	
HABITATIONS	
QUARRY PIT	
TANK	
KULAM	
CANAL	
CRUSHER PLANT	

திருவண்ணாமலை

12°43'39.36"N
12°43'19.46"N
12°42'45.34"N
12°42'43.90"N
12°42'22.76"N
79°35'10.63"E
79°35'31.67"E
79°36'08.51"E
79°36'28.71"E
120m
220m
441m
Towards V.dapoondipattu
Towards V.dapoondipattu
Towards Somavaram
Towards Thumbai
Towards Thumbai
Towards Vadachapakkam

LAND USE PATTERN

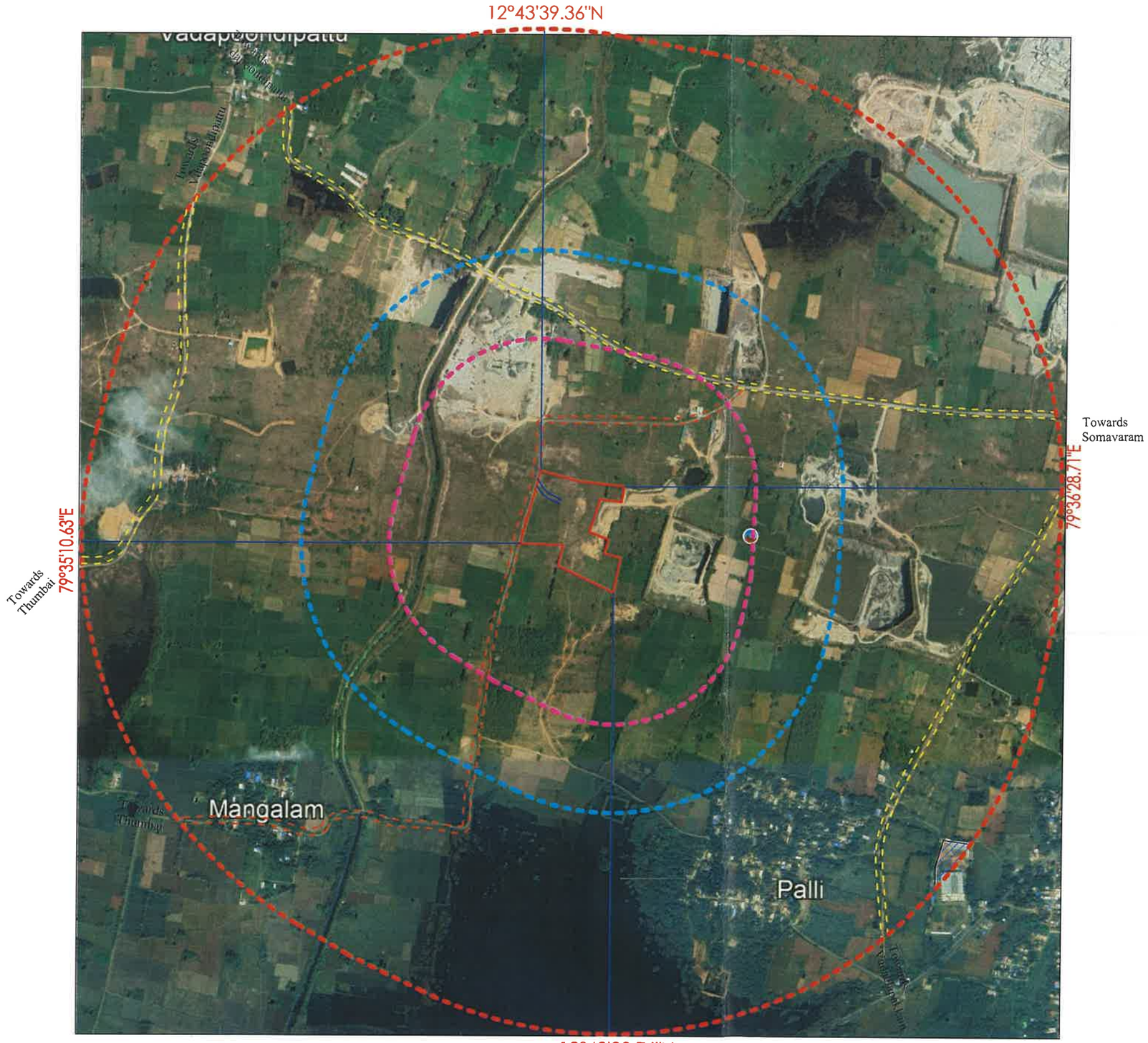
DESCRIPTION	AREA IN (%)
ROAD	05
TREES	05
BARREN LAND	51
AGRICUTURE LAND	20
HABITATIONS	07
WATER BODIES	12

ENVIRONMENTAL PLAN
SCALE 1: 10,000

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

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



N

திருவண்ணாமலை

PLATE NO: 1B

DATE OF SURVEY :09.07.2025

APPLICANT:

TMT T POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:

S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

INDEX

TOPO SHEET NO : 57 P/10

LATITUDE :12°42'55.87"N to 12°43'04.85"N

LONGITUDE :79°35'46.33"E to 79°35'54.15"E

Q.L.APPLIED AREA	
300M RADIUS	
500M RADIUS	
1KM RADIUS	
APPROACH ROAD	
CARTTRACK	
PANCHAYAT ROAD	

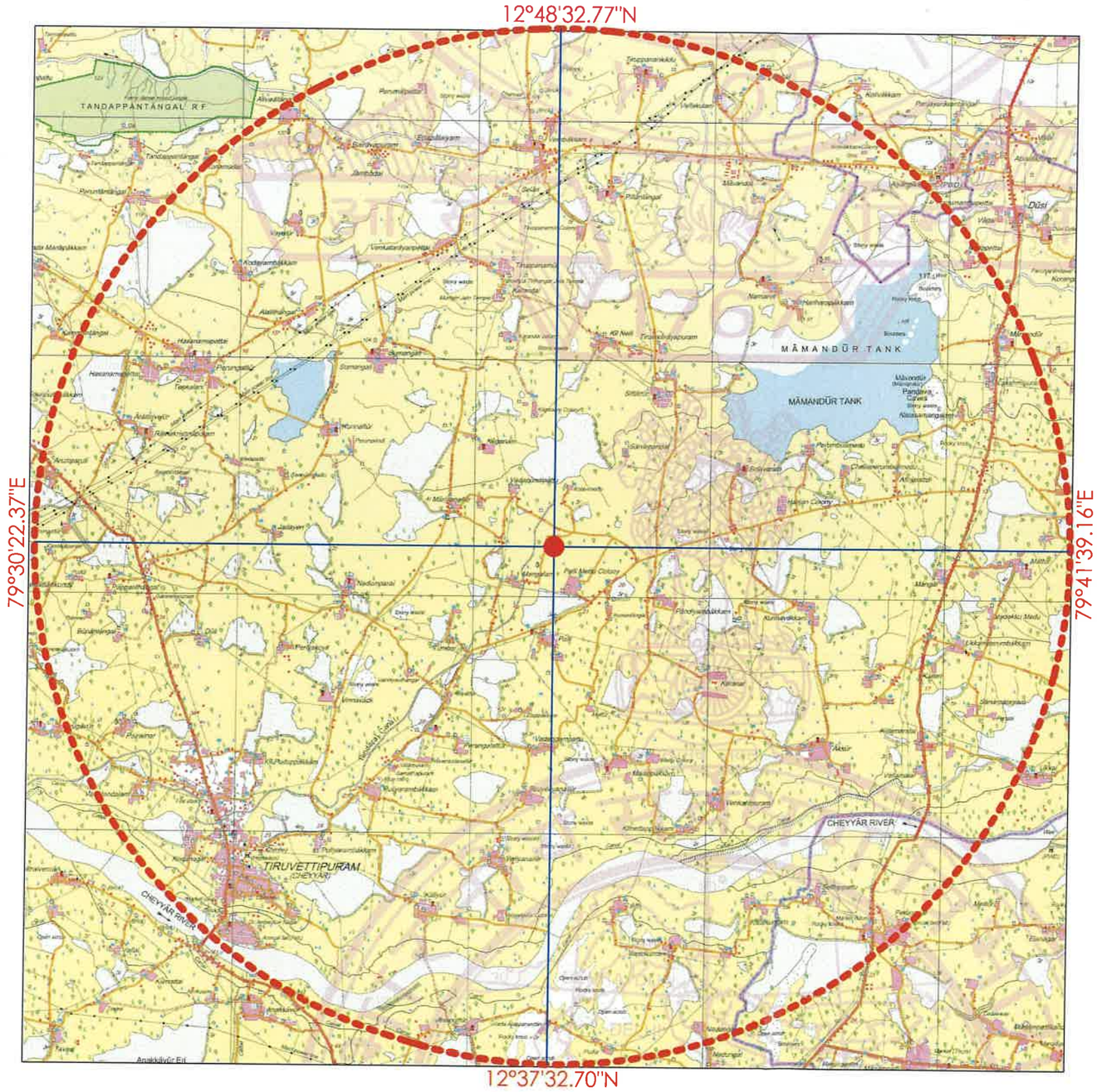
SATELLITE IMAGERY MAP

SCALE 1: 10,000

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

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



N

PLATE NO-I C

DATE OF SURVEY :09.07.2025

APPLICANT:

TMT T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:

S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

INDEX

TOPO SHEET NO : 57 P/10

LATITUDE :12°42'55.87"N to 12°43'04.85"N

LONGITUDE :79°35'46.33"E to 79°35'54.15"E

Q.L.APPLIED AREA

10KM RADIUS



TOPO SKETCH OF QUARRY LEASE APPLIED AREA FOR 10Km RADIUS

SCALE- 1:100000

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

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

தமிழ்நாடு புவியியல் மற்றும் சுரங்கத்துறை
திருவண்ணாமலை

KEY PLAN

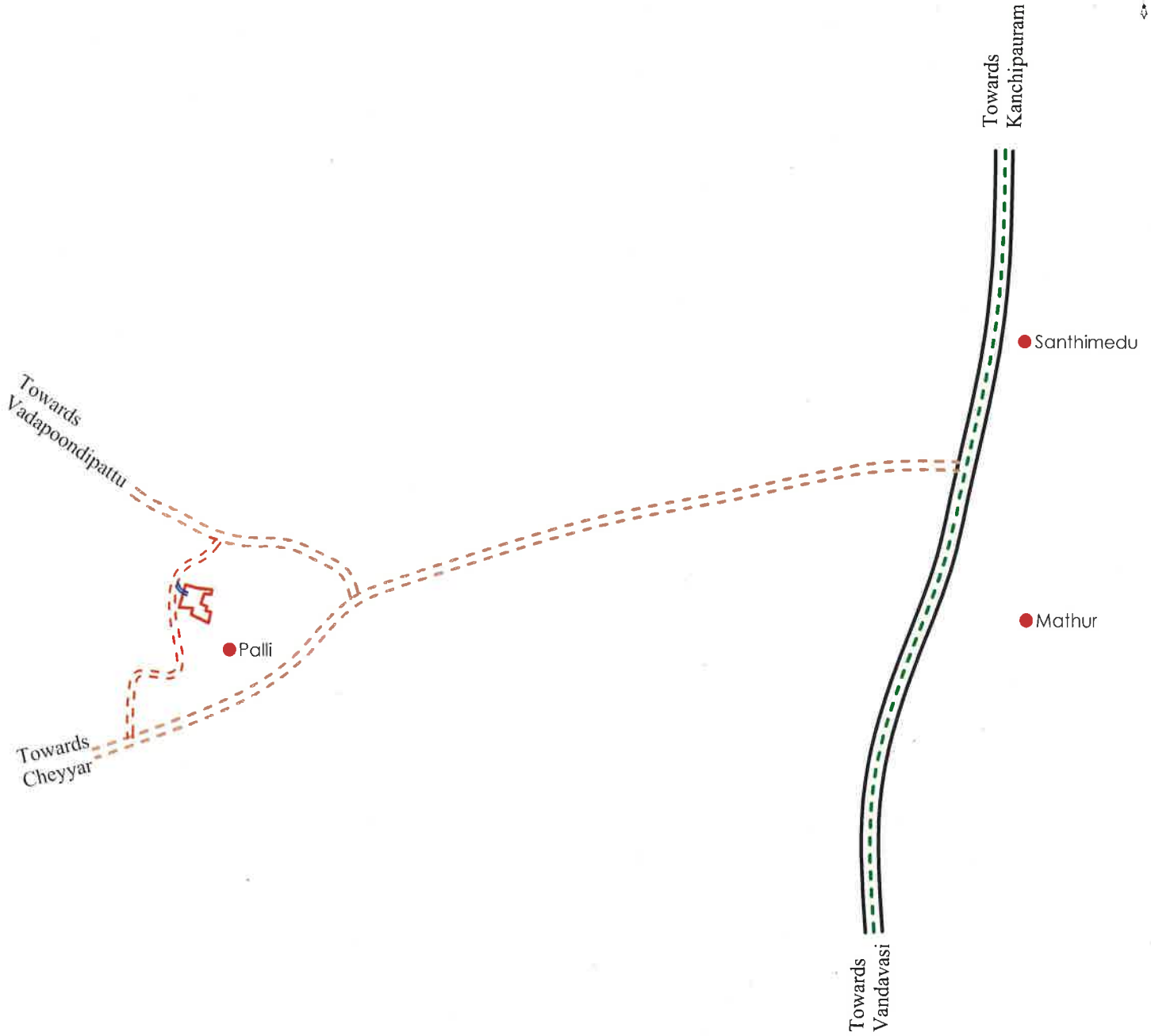


PLATE NO:ID

DATE OF SURVEY :09.07.2025

APPLICANT:

TMT.T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:

S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

INDEX

- Q.L.APPLIED AREA
- APPROACH ROAD
- CARRTRACK
- PANCHAYAT ROAD
- STATE HIGHWAY
- HABITATIONS

KEY PLAN

Not To Scale

PREPARED BY:

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

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

BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
1	12° 42' 59.46"N	79° 35' 46.33"E
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WGS 84 DATUM		

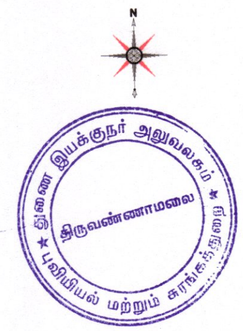


PLATE NO-II
DATE OF SURVEY : 09.07.2025

APPLICANT:
TMT.T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

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- Q.L.APPLIED BOUNDARY
- 7.5m,10m&50m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- CONTOUR
- SCRUB

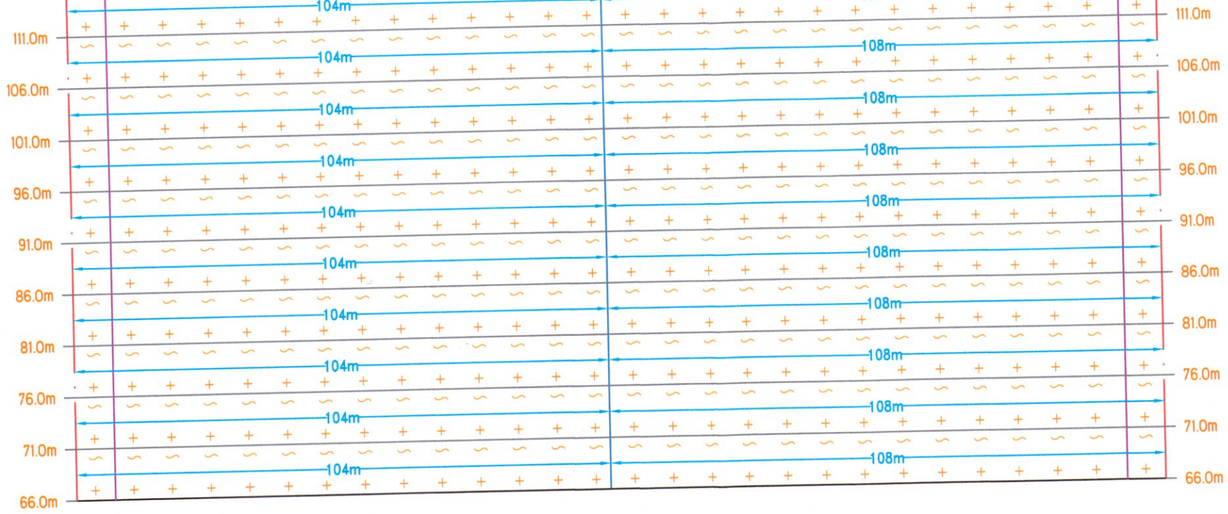
QUARRY LEASE & SURFACE PLAN
SCALE 1 : 1000

PREPARED BY :
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

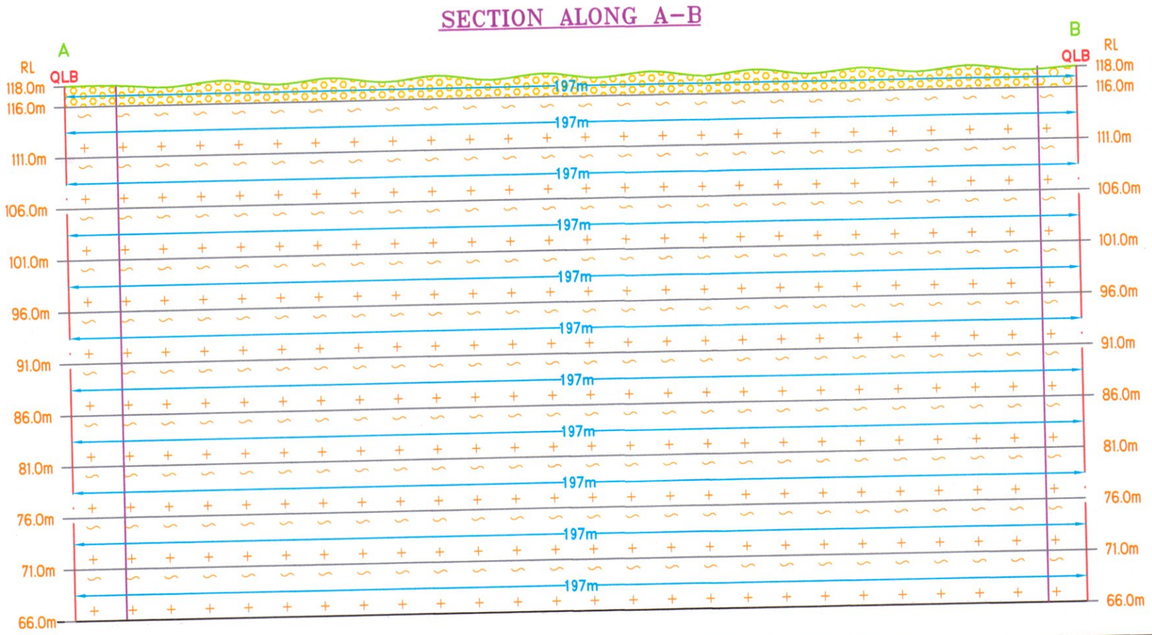
C.NATARAJAN,M.Sc,M.Phil.,
QUALIFIED PERSON

BOUNDARY CO-ORDINATE		
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WGS 84 DATUM		

SECTION ALONG X-Y



SECTION ALONG A-B



SECTION ALONG C-D

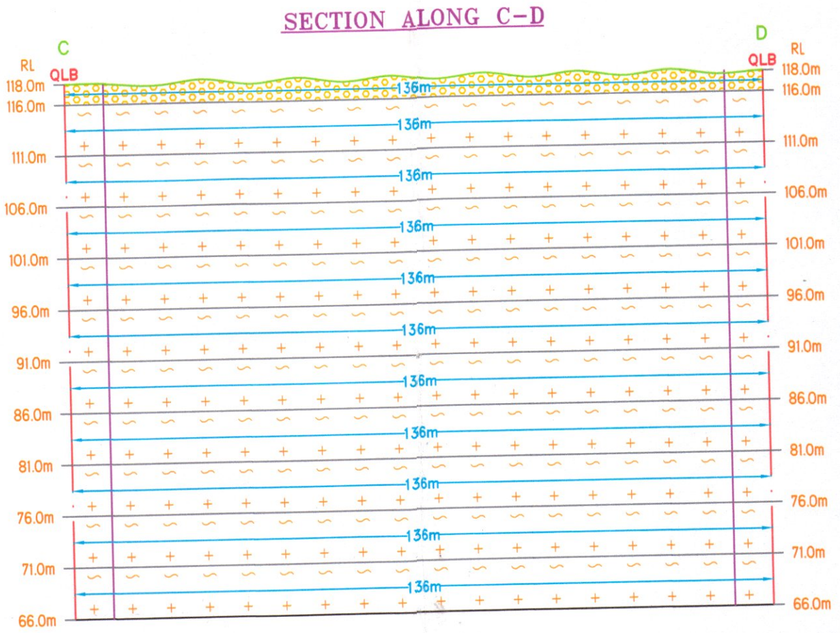


PLATE NO-III
DATE OF SURVEY :09.07.2025

APPLICANT:
TMT.T.POORNIMA,
W/O.TAMILOLI,
No:1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

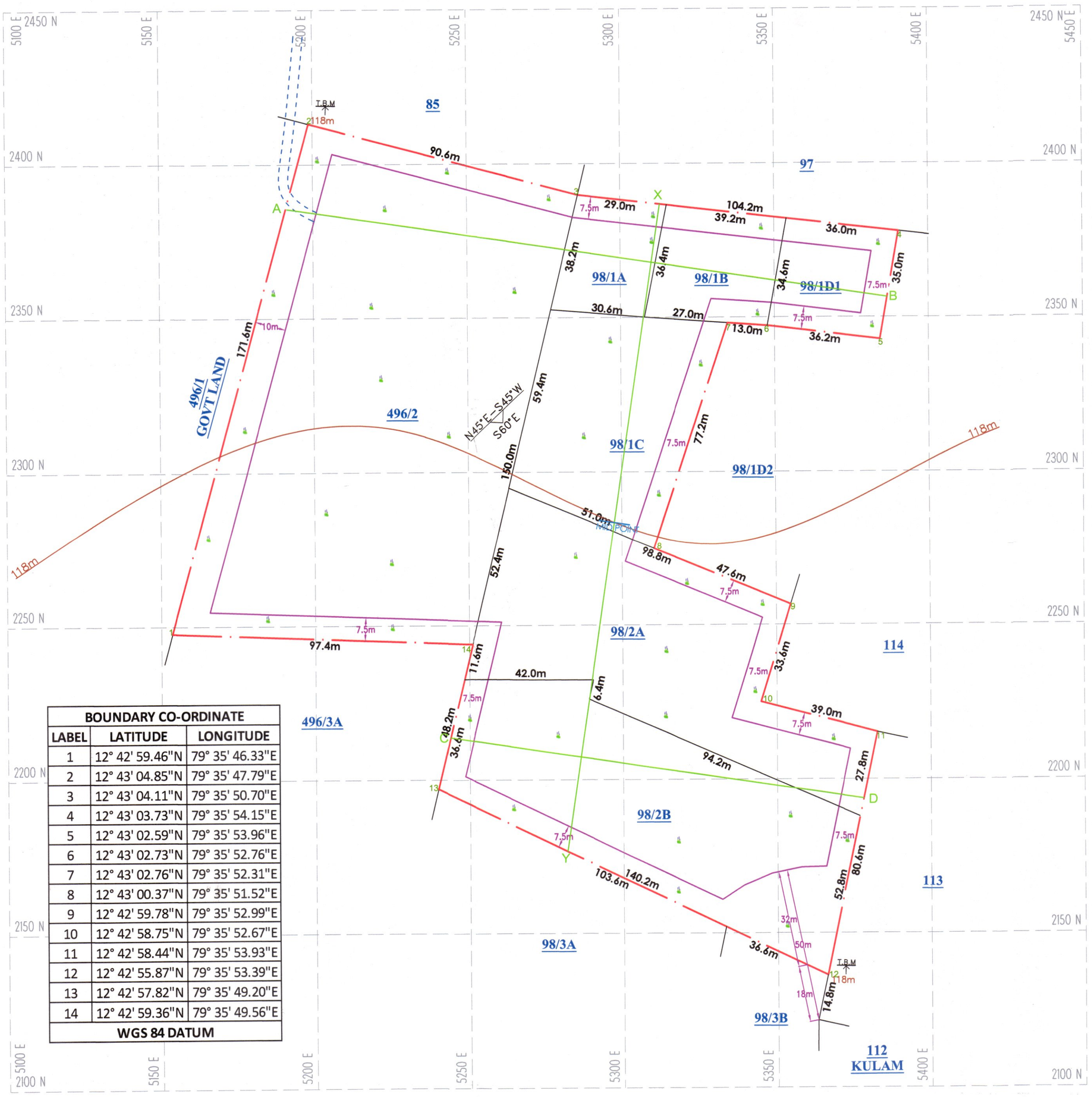
QUARRY LEASE APPLIED AREA:
S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

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CONTOUR
SCRUB
GRAVEL
ROUGH STONE
STRIKE & DIP

TOPOGRAPHY, GEOLOGICAL PLAN & SECTIONS
SCALE 1 : 1000
SECTIONS HOR 1:1000, VER 1:500

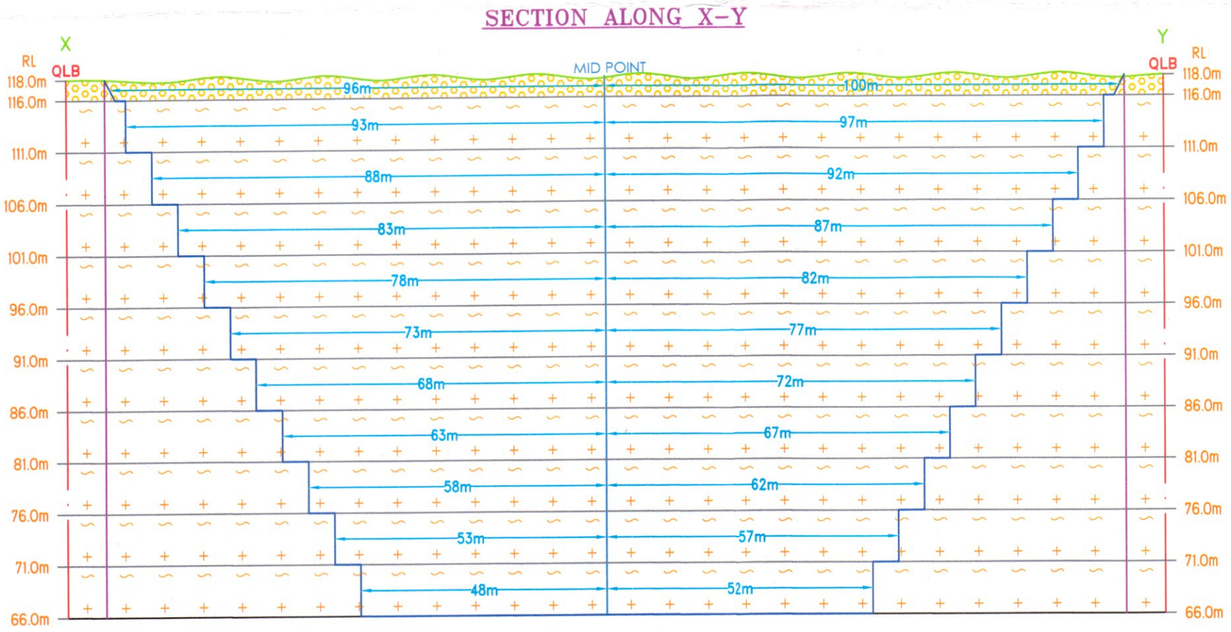
PREPARED BY:
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IN THIS PLATE IS TRUE AND CORRECT TO
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THE LEASE MAP AUTHENTICATED BY STATE
GOVERNMENT

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

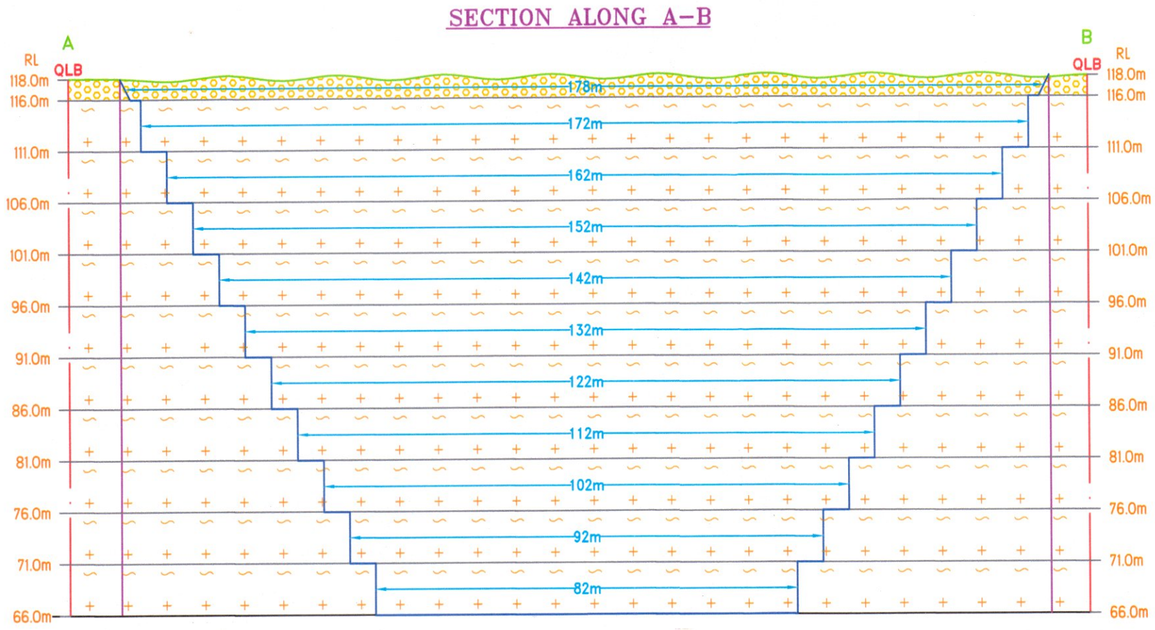


BOUNDARY CO-ORDINATE		
LABEL	LATITUDE	LONGITUDE
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WGS 84 DATUM		

SECTION ALONG X–Y



SECTION ALONG A–B



SECTION ALONG C–D

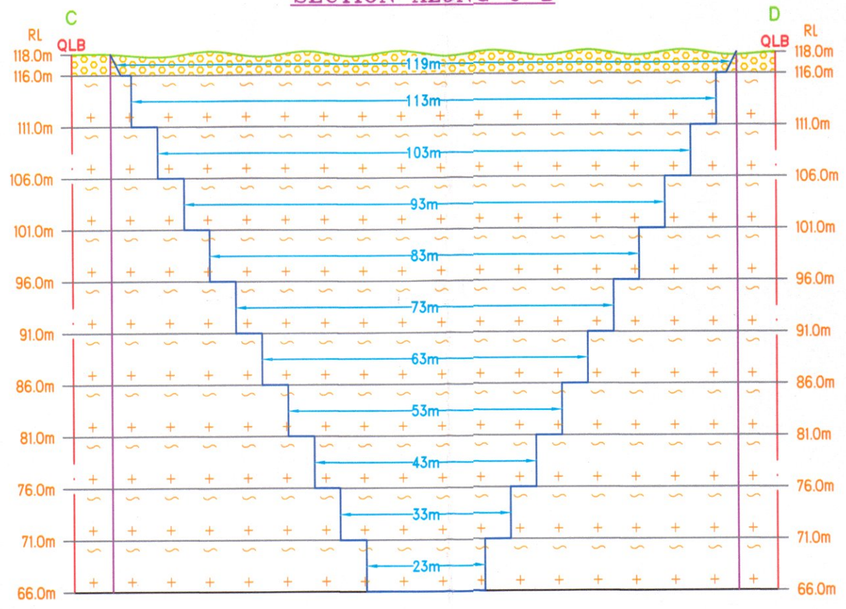


PLATE NO-IV
DATE OF SURVEY :09.07.2025

APPLICANT:
TMT.T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

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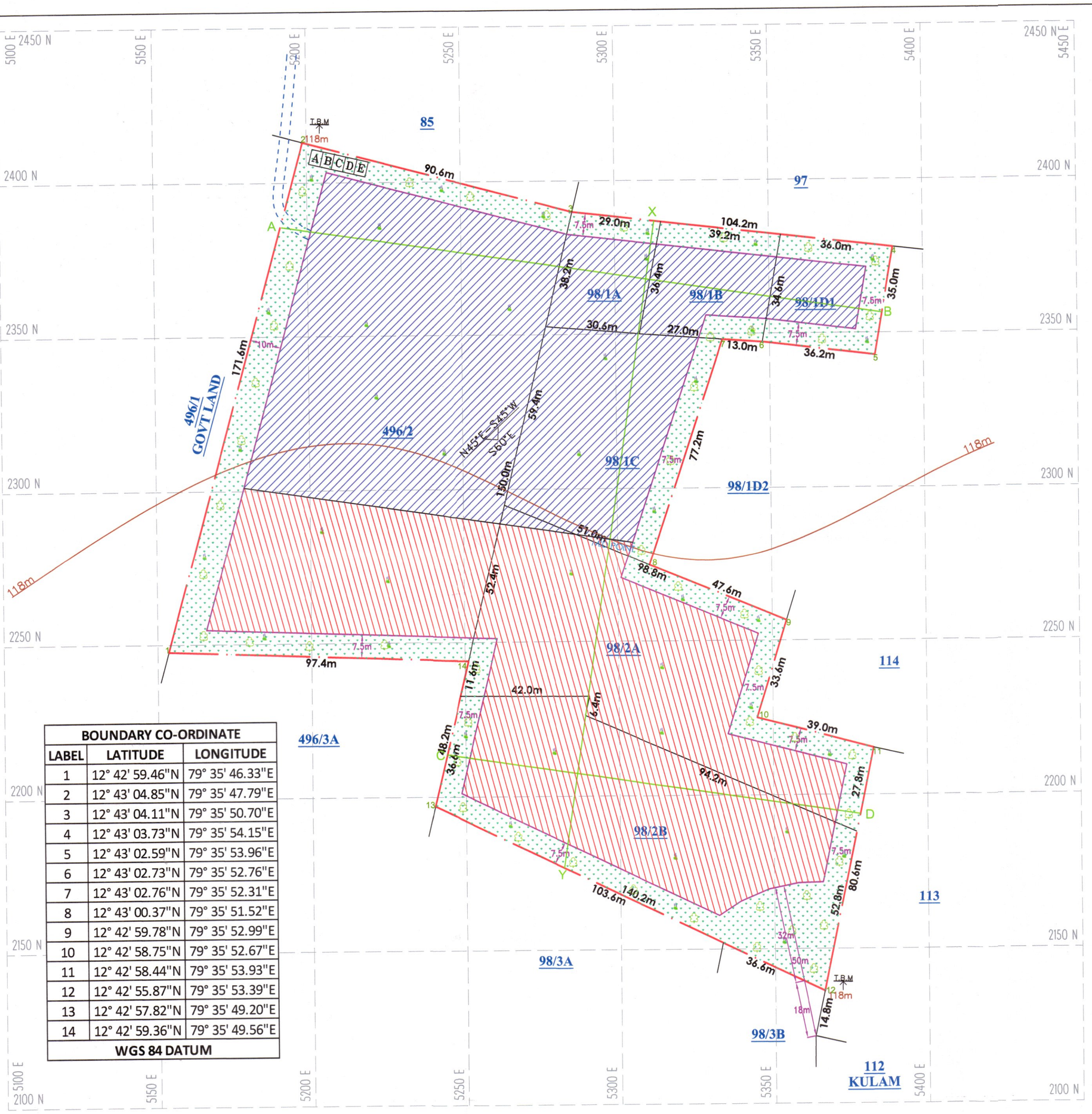
- Q.L.APPLIED BOUNDARY
- 7.5m,10m&50m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- CONTOUR
- SCRUB
- GRAVEL
- ROUGH STONE
- STRIKE & DIP

MINEABLE PLAN & SECTIONS
SCALE 1 : 1000
SECTIONS HOR 1:1000, VER 1:500

PREPARED BY:
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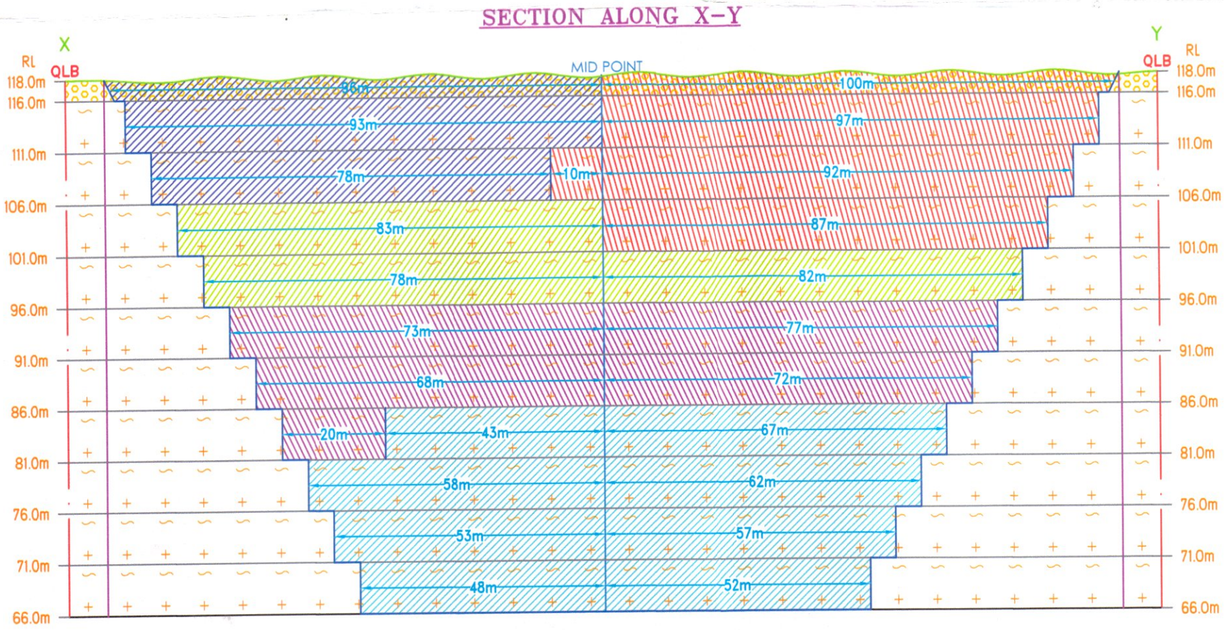
C.NATARAJAN,M.Sc,M.Phil.,
QUALIFIED PERSON

தலைமை இயக்குநர் அலுவலகம் திருவண்ணாமலை புவியியல் மற்றும் சுரங்கத்துறை

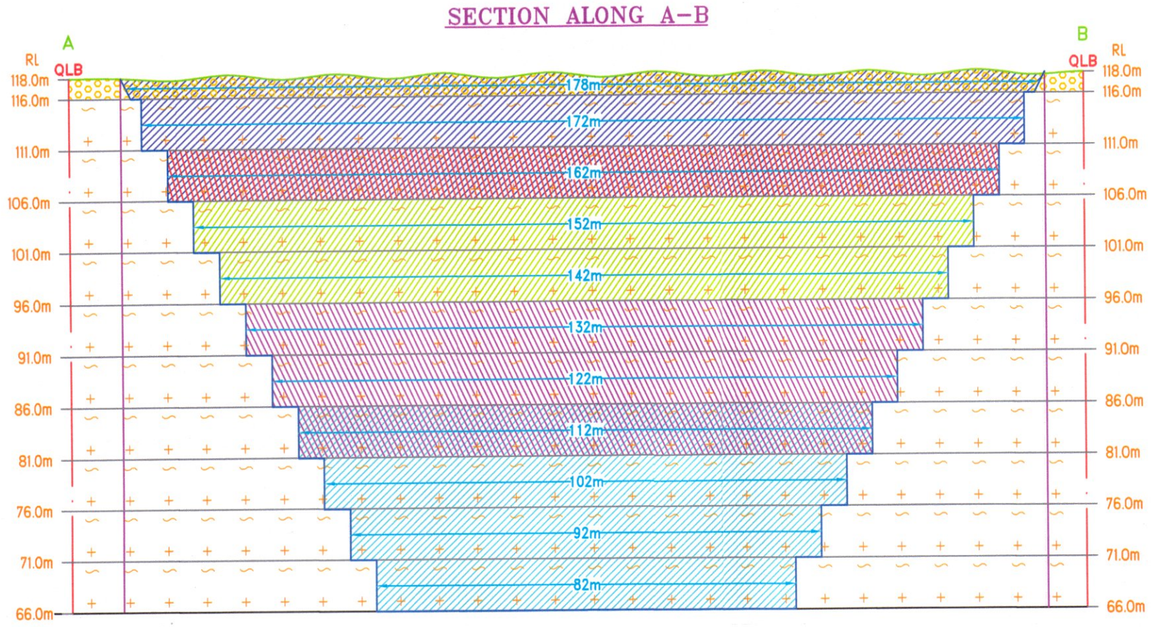


BOUNDARY CO-ORDINATE		
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WGS 84 DATUM		

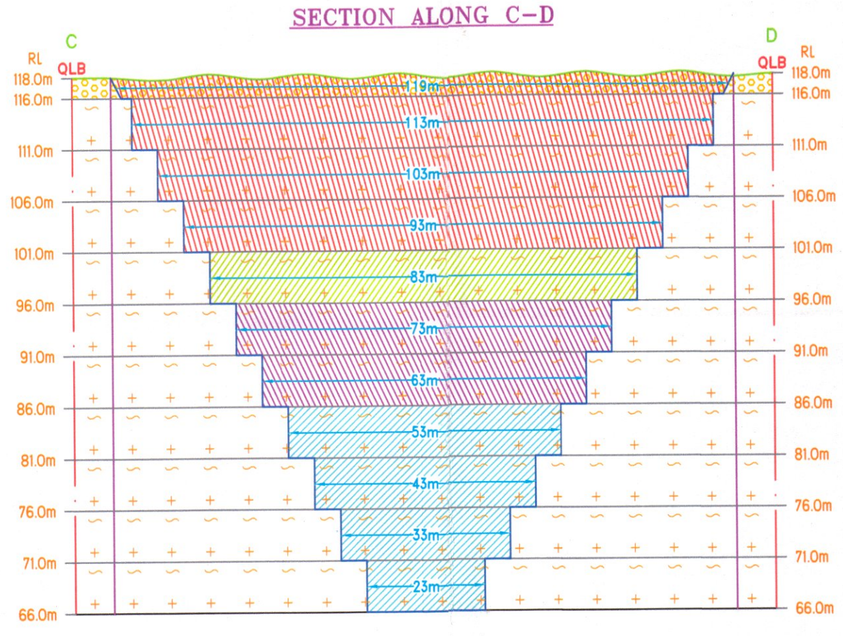
SECTION ALONG X–Y



SECTION ALONG A–B



SECTION ALONG C–D



PROPOSED SITE SERVICES

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

Proposed area to be Planted

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

PRESENT & POST LAND USE PATTERN

DESCRIPTION	PRESENT AREA (Ha)	AREA AT THE END OF THIS QUARRYING PERIOD (Ha)
AREA UNDER QUARRYING	NIl	2.70.5
INFRASTRUCTURE	NIl	0.01.0
ROADS	NIl	0.02.0
GREEN BELT	NIl	0.78.5
UN–UTILIZED AREA	3.52.0	NIl
GRAND TOTAL	3.52.0	3.52.0

PLATE NO-V
DATE OF SURVEY :09.07.2025

APPLICANT:
TMT.T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
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EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
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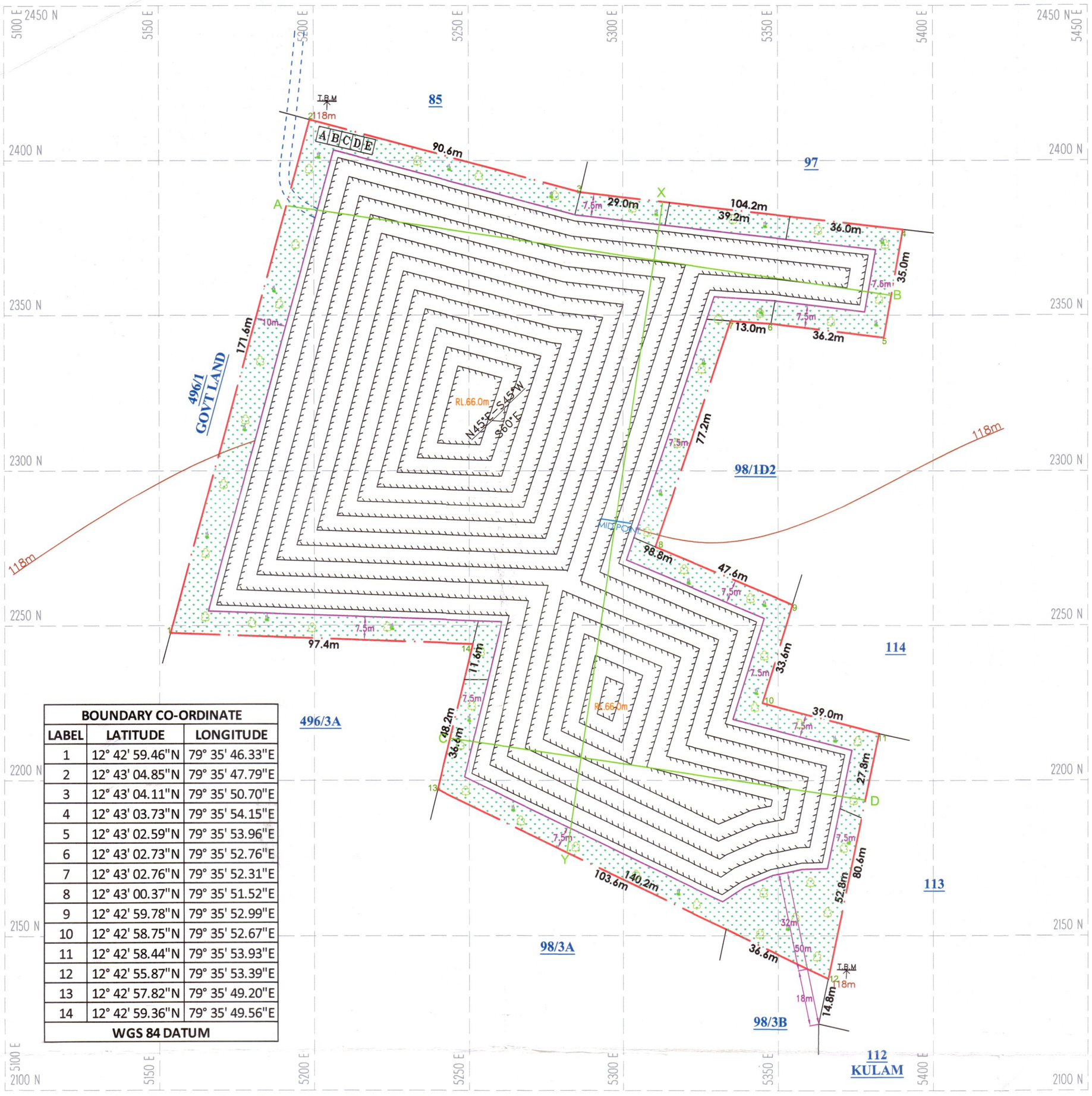
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Q.L.APPLIED BOUNDARY
7.5m,10m&50m SAFETY DISTANCE
TEMPORARY BENCH MARK (T.B.M)
APPROACH ROAD
CONTOUR
SCRUB
GRAVEL
ROUGH STONE
STRIKE & DIP

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

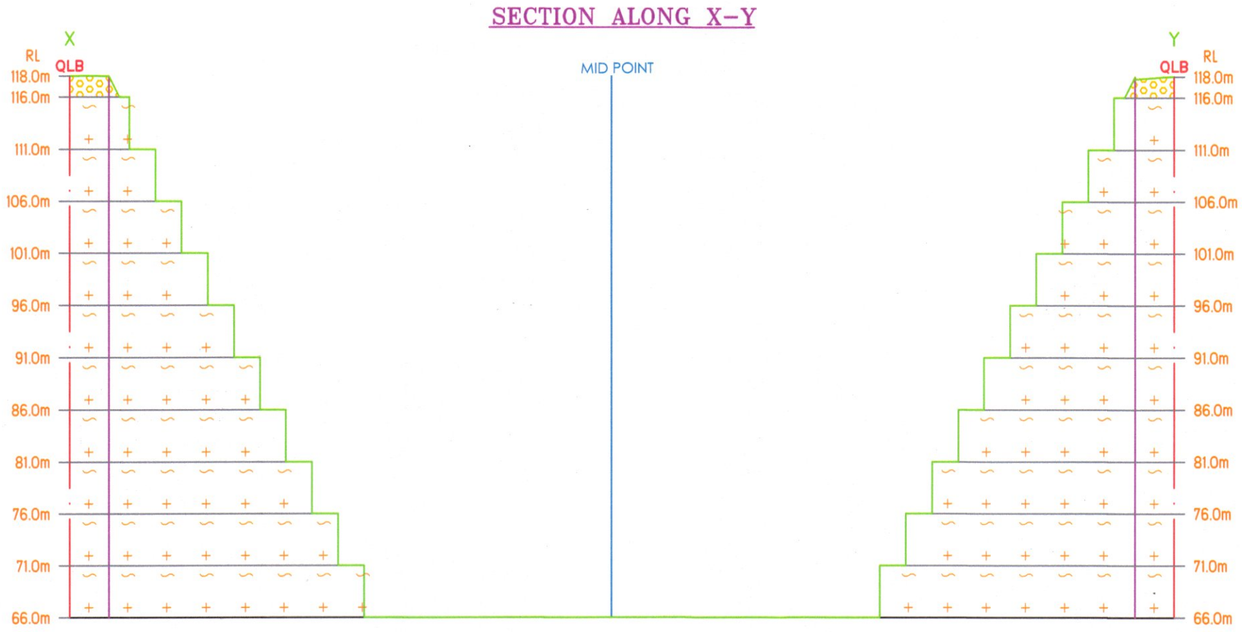
PREPARED BY:
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

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

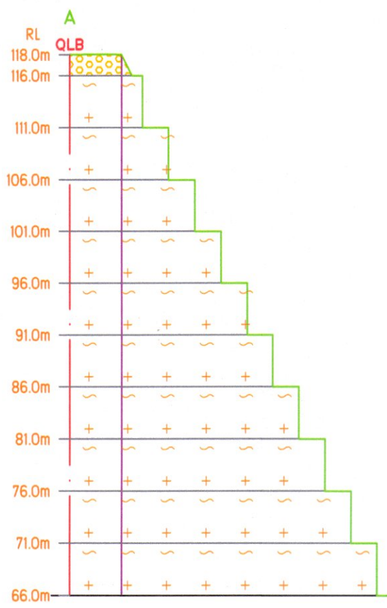


BOUNDARY CO-ORDINATE		
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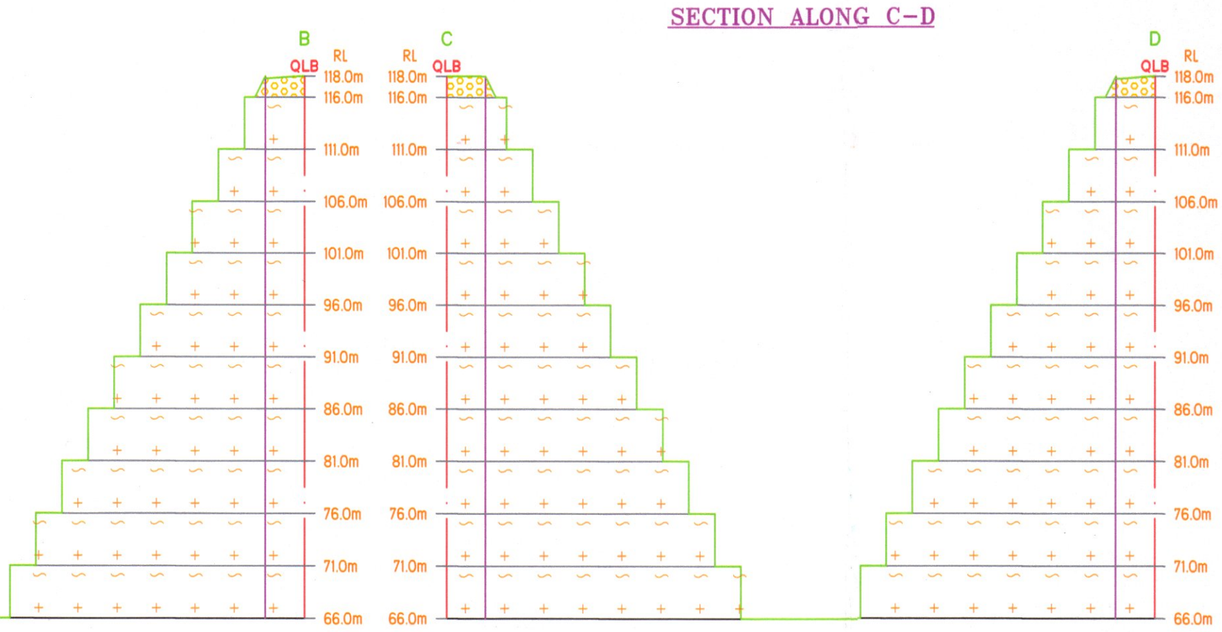
SECTION ALONG X–Y



SECTION ALONG A–B



SECTION ALONG C–D



PROPOSED SITE SERVICES

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

Proposed area to be Planted

ULTIMATE PIT DIMENSION OF END OF THE QUARRY LEASE PERIOD
L196m(MAX)XW138m(Avg)X52m(d)(Max)

PLATE NO-VI
DATE OF SURVEY :09.07.2025

APPLICANT:
TMT.T.POORNIMA,
W/O.TAMILOLI,
No.1/62 ,NORTH STREET,
PANRUTTI,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.NOs :496/2,98/1A,98/1B,98/1C,98/1D1,
:98/2A&98/2B,
EXTENT : 3.52.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

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- 7.5m,10m&50m SAFETY DISTANCE
- TEMPORARY BENCH MARK (TBM)
- APPROACH ROAD
- CONTOUR
- SCRUB
- GRAVEL
- ROUGH STONE
- STRIKE & DIP
- PROPOSED QUARRY PIT

CONCEPTUAL PLAN & SECTION
SCALE 1 : 1000
SECTION HOR 1 : 1000, VER 1: 500

PREPARED BY:
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

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

துணை இயக்குநர் அலுவலகம் திருவண்ணாமலை புவியியல் மற்றும் சுரங்கத்துறை

ANNEXURE-4

From
Dr.S.Vediappan, M.Sc., Ph.D.,
Deputy Director,
Geology and Mining,
Tiruvannamalai - 4.

To
Tmt.Poornima,
W/o. T.Tamil Oli,
No.1/62 Notth Street.
Panruti,
Kanchipuram District.

Rc.No.165/Kanimam/2025, dated 18.07.2025.

Sir,

Sub: Mines and Minerals – Minor Mineral - Rough Stone and Gravel - Tiruvannamalai District – Cheyyar Taluk - Palli Village Patta land SF.Nos. 496/2, 98/1A & etc. over an extent of 3.52.0 hects., – Application preferred by **Tmt.Poornima** W/o. Tamil Oli - Precise area communicated – Submission of three copies of draft Mining Plan for approval - Approval accorded - regarding.

Ref:
1. Application from Tmt.Poornima W/o. Tamil Oli dated 26.02.2025.
2. Precise Area Communication Notice Rc.No.165/Kanimam/2025, dated 08.07.2025.
3. Mining Plan submitted by Tmt.Poornima W/o. Tamil Oli dated 15.07.2025.

****

Tmt.Poornima W/o. Tamil Oli has preferred an application for the grant of Rough Stone and Gravel quarry lease over an extent of 3.52.0 hects., of Patta land in SF.Nos. 496/2 (1.47.50), 98/1A (0.12.0), 98/1B (0.15.0), 98/1C (0.36.0), 98/1D1 (0.12.50), 98/2A (0.64.0) & 98/2B (0.65.0) of Palli Village, Cheyyar Taluk, Tiruvannamalai District for a period of 5 (Five years) vide in the reference 1st cited and the precise area has been communicated to the applicant vide in the reference 2nd cited with a direction to submit the approved mining plan and Environmental Clearance.

2. As directed, the applicant has submitted three copies of mining plan for approval vide in the reference 3rd cited. The Mining Plan has been verified in detail and found that it has been prepared in accordance with the guidelines / instructions issued by the

Commissioner of Geology and Mining in letter RC. No. 3868 / LC / 2012 dated 19.11.2012.

i) The reserves estimated in the mining plan is

Depth in Mts.	Geological Resources			Mineable Reserves		
	Mineral	in Cbm	in Tons	Mineral	in Cbm	in Tons
52m (BGL)	Rough Stone	1758800	4836700	Rough Stone	742225	2041118.75
	Gravel	70352	140704	Gravel	57976	115952

ii) Year wise production proposed for the **five year period** are as follows:-

Year	Rough Stone Quantity		Gravel Quantity	
	CBM	Tons	CBM	Tons
I	143160	393690.00	34176	68352
II	150740	414535.00	23800	47600
III	152490	419347.50	23800	-
IV	151645	417023.75	-	-
V	144190	396522.50	-	-
Total	**742225**	**2041118.75**	**57976**	**115952**

3. Therefore in exercise of the powers conferred under Rule 41(2) of Tamil Nadu Minor Mineral Concession Rules, 1959, the mining plan is hereby approved, subject to the following conditions:-

i. The mining plan is approved without prejudice to any other Law applicable to the quarry lease from time to time whether such laws are made by the Central Government, State Government or any other authority.

ii. This approval of the mining plan does not in any way convey the approval of the Government in terms or any other provisions of the Mines and Minerals (Development and Regulation) Act, 1957, or any other connected laws including Forest (Conservation) Act, 1980, Forest Conservation Rules, 1981, Environment Protection Act, 1980, Explosives Act, 1884 (Central Act IV of 1884) Minor Mineral Concession and Development Rules, 2010 and the Rules made there under and the Tamil Nadu Minor Mineral Concession Rules, 1959.

iii. The mining plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.

iv. The validity of the mining plan is co-terminus with the lease period.

v. Quarrying shall be done in accordance with the approved Mining Plan.

vi. If anything is found to be concealed in the contents of the mining plan which are required by the mines act or if any proposed for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.

vii. All the conditions stipulated in the precise area communication dated 08.07.2025 should be duly complied with.

4. Further, other quarries situated within 500m radial distance are as follows.

Existing Quarries

Name of the Owner	Village & S.F. Nos.	Extent in Hects.	Lease Period	Remarks
S.Nirmal	Palli 115/1, 2,3,4 & 116 (Part)	2.000	29.08.2023 to 28.08.2028	Rough Stone Quarry

Abandoned quarries

Name of the Owner	Village & S.F. Nos.	Extent in Hects.	Lease Period	Remarks
R.Velmurugan	Palli 79/2 (Part)Etc.	0.80.0	19.05.2012 to 18.05.2017	Expired Quarries
R.Venkatachalam,	Palli 66/3A (1.03.0) & 66/3B (1.87.0)	(2.90.0)	21.07.2016 to 20.07.2021	
R.Velmurugan,	Palli 80/2(0.02.5), 81/1 (0.31.0), 81/2A(0.17.5), 81/2B (0.48.0), 84/1 (0.21.0)	1.20.0	17.09.2018 to 16.09.2023	
M.Marimuthu,	Palli 74/3,74/4	0.98.5	16.11.2018 to 15.11.2023	
R. Velmurugan	Palli 79/2,80/1& 81/1	0.80.0	09.11.2006 to 08.11.2011	
R.Velmurugan,	80/2, 81/1, 2A , 2B , 84/1	1.20.0	17.09.2023 to 16.09.2024	

Present Proposed Quarries

Sl. No	Name of the Owner	Village & S.F. Nos.	Extent in Hects.
1	Tmt.T.Poornima, W/o.Tamiloli, No.1/62, South Street, Panrutti, Kanchipuram	Palli 496/2 & etc.,	3.91.0
2	Thiru.S.Gokulraj, S/o.Saravanaraj, No. 14 Kamaraj Nagar. Pammal Post, Kanchipuram.	Palli 95/1, 95/10, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8 & 95/9	3.45.0

Encl: 2 Copies of Approved Mining Plan.

18.07.25

Deputy Director,
Geology and Mining,
Tiruvannamalai.

Copy submitted to:

1. The Chairman, SEIAA,
   Tamil Nadu, 3rd Floor, Panagal Maaligai,
   No.1, Jeenis Road, Saidapet, Chennai-15.
2. The Commissioner of Geology and Mining, Chennai-32.
3. The District Collector, Tiruvannamalai.

ANNEXURE-5

சான்று

திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், வ.எ:36 பல்லி கிராமத்தில் உள்ள புன்செய் சர்வே எண்: 98/1A - 0.12.0 ஏர்ஸ் 98/1B - 0.15.0 ஏர்ஸ், 98/1C - 0.36.0, 98/1D - 0.12.5, 98/2A - 0.64.0, 98/2B - 0.65.0, 496/2 - 1.47.5 ஆக 3.52.0 ஏறக்குடல் ஏர்ஸ் பரப்பளவு கொண்ட நிலத்தில் சாதாரண கற்கள் மற்றும் கிராவல் குவாரி செய்வதற்காக திருமதி. T. பூர்ணிமா க/பெ P. தமிழ்ஏன், NO: 1/62 வடக்கு தெரு, பண்ருட்டி கிராமம், காஞ்சிபுரம் மாவட்டம்-631604 என்ற முகவரியில் வசிக்கும் நபர் உரிமம் கோரி விண்ணப்பித்துள்ள இடத்தைச் சுற்றி 300.மீ சுற்று பரப்பில் ஏவ்வித குடியிருப்புப் பகுதிகளோ, தொழுநோய் சிகிச்சை அளிக்கப்பட்ட வீட்டு மனை பிரிவுகளோ, உயர்மின் கம்பிகளோ, ஏதும் இல்லை என்று சான்று அளிக்கப்படுகிறது.

கிராம நிர்வாக அலுவலர்
28. மங்கலம், 36. பல்லி கிராமம்
செய்யார் வட்டம், தி.மலை. மாவட்டம்

TOPOGRAPHICAL VIEW OF PALLI VILLAGE,

ROUGH STONE AND GRAVEL QUARRY



NAME OF THE APPLICANT:		TMT.T.POORNIMA
DISTRICT	:	TIRUVANNAMALAI
TALUK	:	CHEYYAR
VILLAGE	:	PALLI
S.F.NOS	:	496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A AND 98/2B
EXTENT	:	3.52.0Ha

VAO SIGN & SEAL

24/7/2025

கிராம நிர்வாக அலுவலர்
28. மங்கலம், 36. பலலி கிராமம
செய்யார் வட்டம். தி.மலை. மாவட்டம்

Place:

Date:

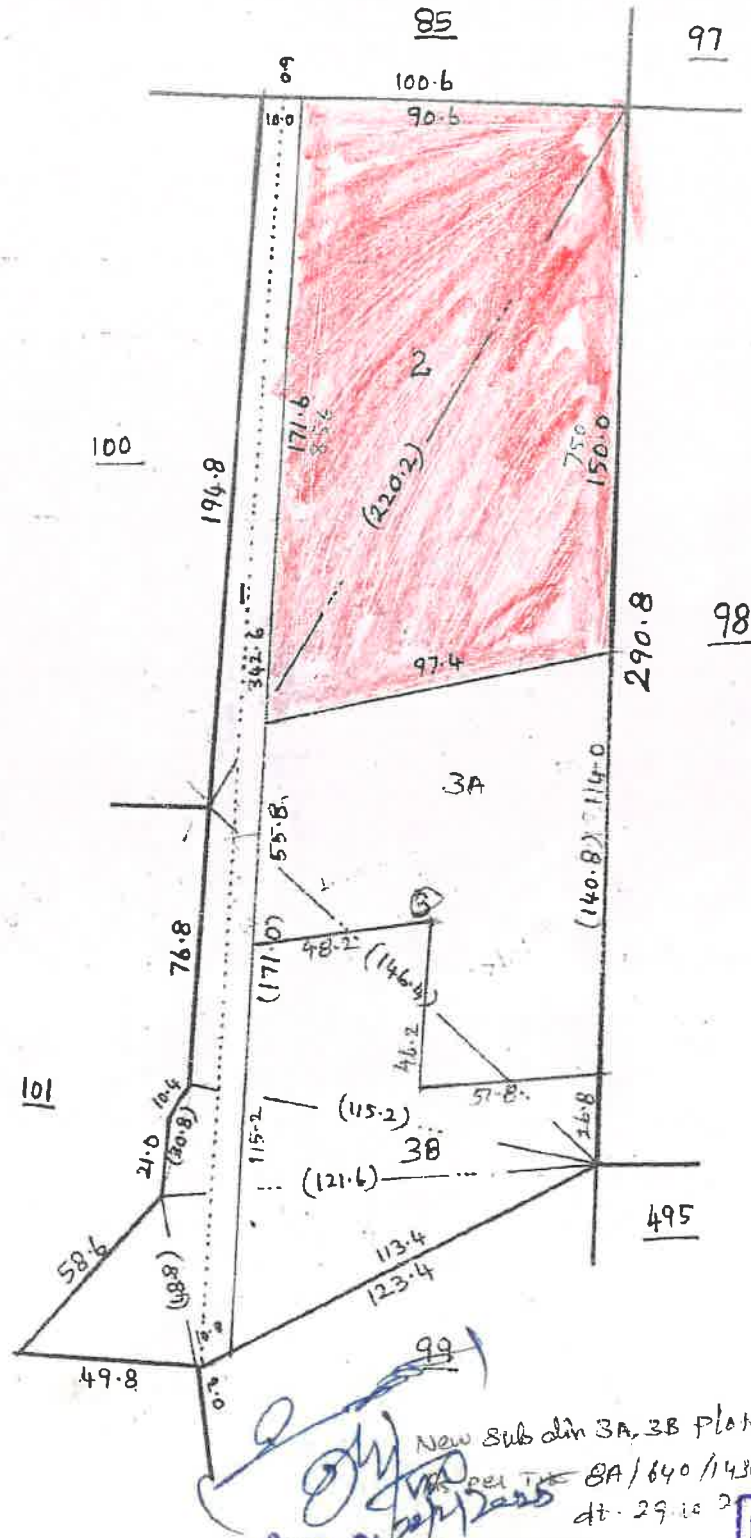
ANNEXURE-6

ANNEXURE II

வட்டம்: செய்யார்

புல எண். 496

பரப்பு: ஹெக்டேர் 3



New Sub div 3A, 3B plated by me
SA/640/1430
dt. 29.12.2

LEASE APPLIED AREA

திருவண்ணாமலை

துணை இயக்குநர் அலுவலகம்

நில அளவை மற்றும் நிலவரித்திட்டம்

துணை இயக்குநர் அலுவலர்

28, மங்கலம், 36, பலவி கிராமம்

செய்யார் வட்டம், தி.மலை மாவட்டம்

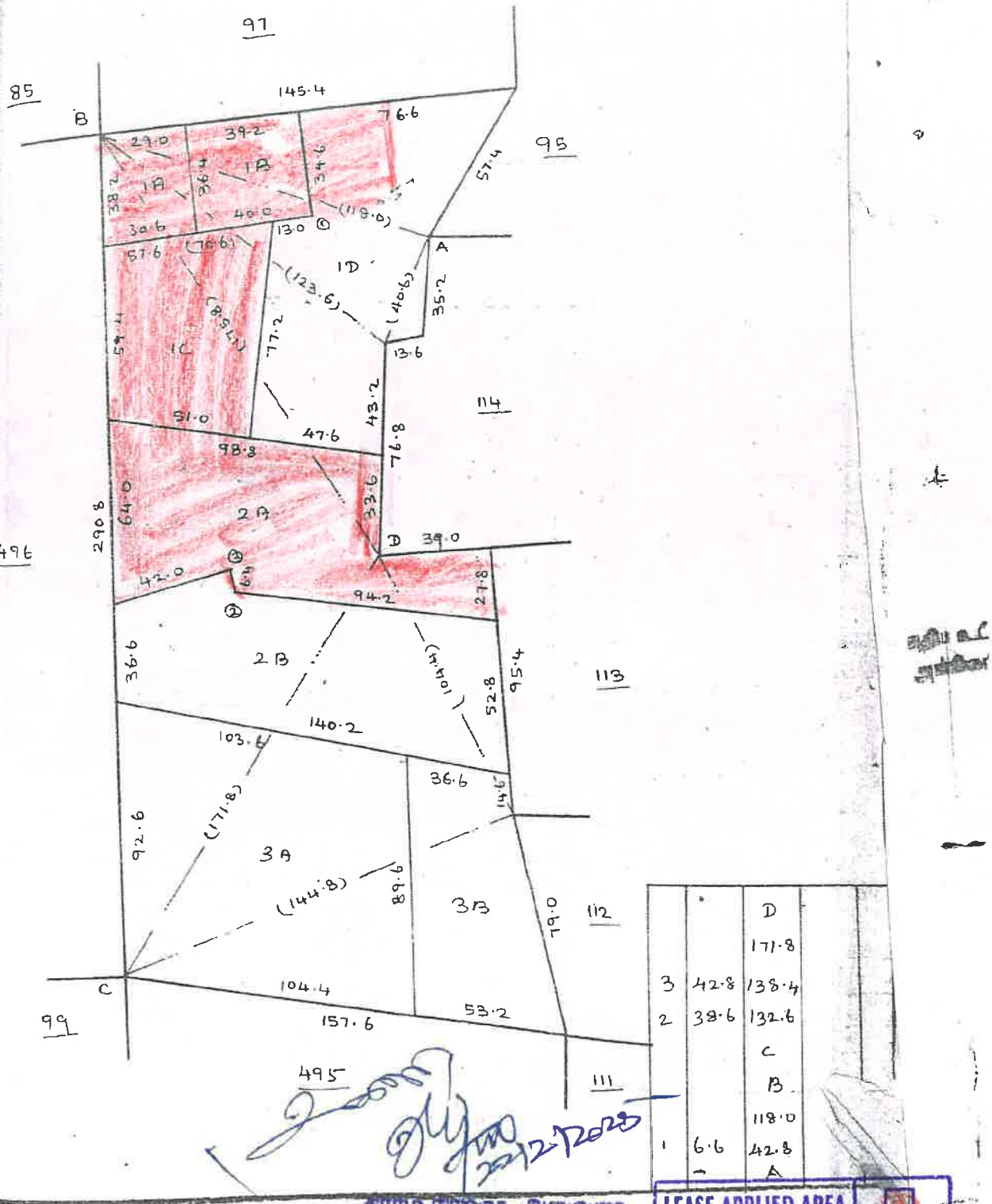
அளவு, 1செ.மீ : 200மீ.

31.12.85

★ துணை இயக்குநர் அலுவலகம் ★
திருவண்ணாமலை
★ புவியியல் மற்றும் சுரங்கத்துறை ★

புல எண். 98

பரப்பு: ஹெக்டேர் 3



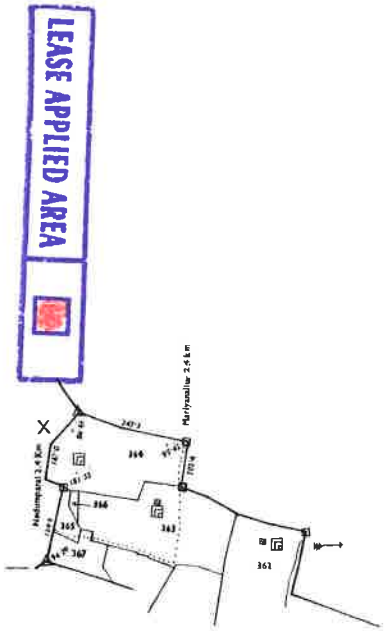
கூறாம நிறுவாக அலுவலர்
அரசு 28 மங்களம் 38 பலவி கிராமம்
செய்யார் வட்டம் தி.மலை மாவட்டம்

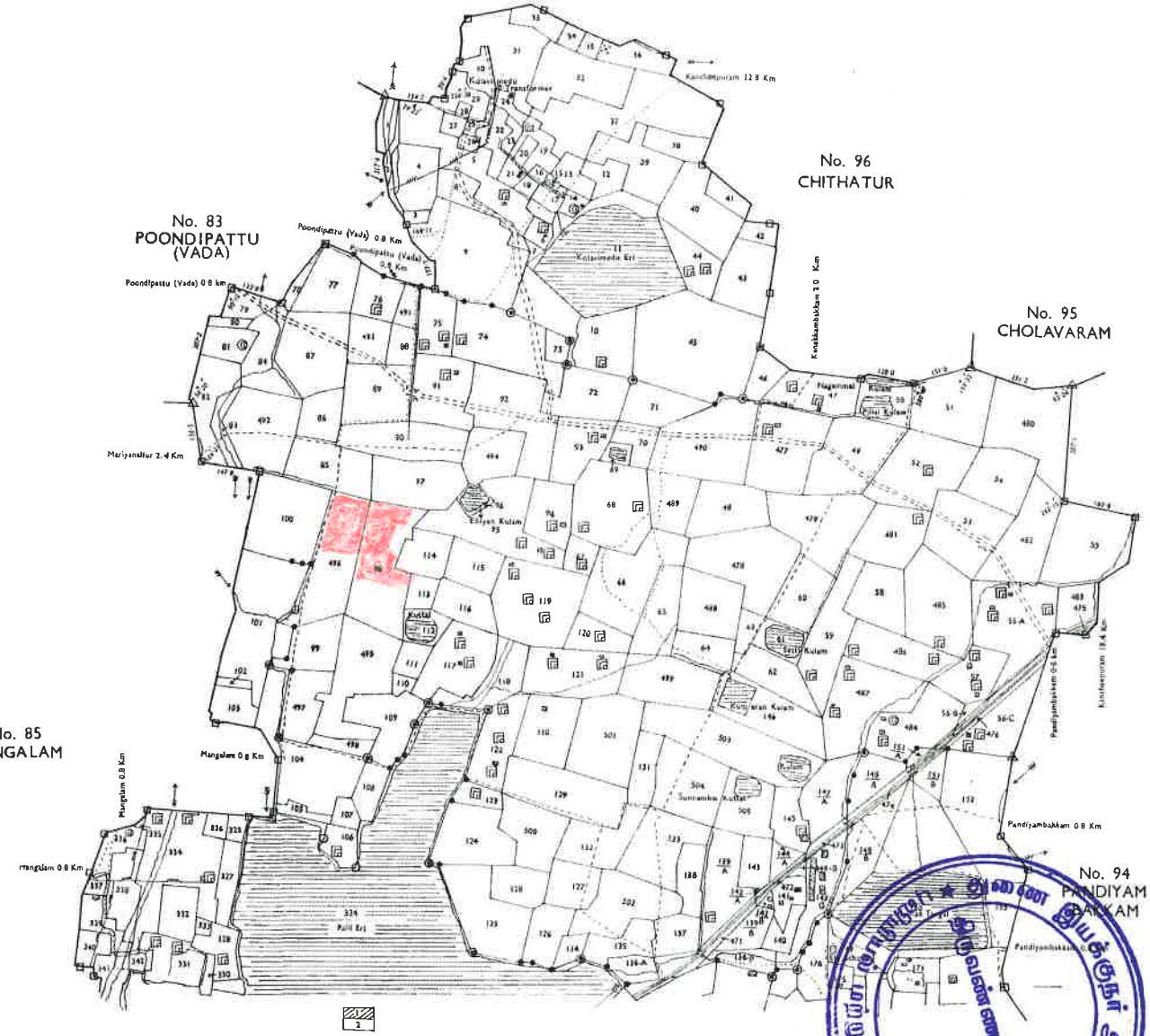
No. 86
PALLI
CHEYYARU TALUK
TIRUVANNAMALAI DISTRICT

Area by { Traverse 718 Hectares 86 . 0 Ares
Fields 719 Hectares 86 . 5 Ares

Scale 1 : 5000

Survey Nos.	Name of details
147/8	Vada Iramanangal
323	Mariamman Koell





ANNEXURE III

ANNEXURE IV

துணை இயக்குநர் அலுவலகம் ★ திருவண்ணாமலை ★ நிலவியல் மற்றும் கனிமத்துறை

தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : திருவண்ணாமலை வட்டம் : செய்யார்

வருவாய் கிராமம் : பல்லி பட்டா எண் : 2504

உரிமையாளர்கள் பெயர்

1. தமிழ்ஒளி மனைவி பூர்ணிமா

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	
496	2	1 - 47.50	3.85	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1A	0 - 12.00	0.30	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1B	0 - 15.00	0.40	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1C	0 - 36.00	0.95	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	1D1	0 - 12.50	0.33	--	--	--	--	2025/0103/06/468362---2018/06/04/0001135D ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	2A	0 - 64.00	1.70	--	--	--	--	2025/0103/06/468362--- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM

98	2B	0 - 65.00	1.70	--	--	--	--	2025/0103/06/468362- -- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
98	3B	0 - 39.00	1.00	--	--	--	--	2025/0103/06/468362- -- ------ Digitally signed:approved through AutoMutation - 21/02/2025 12:20:15:PM
		3 - 91.00	10.23					

குறிப்பு :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **06/04/086/02504/40681** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 22-02-2025 அன்று 03:51:07 PM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

1434 – ஆம் பசலியில் திருவண்ணாமலை மாவட்டம் செய்யார் கிராமக் கணக்கு வட்டம் 36 பள்ளி

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர்.	சாகுபடியாளரின் பெயர்.	முதல் போகம்.				
நில அளவை எண்.	உட்பிரிவு எண்.	பரப்பு.	தீர்வை.	ஒரு போகம் அல்லது இரு போகம்.		நிலத்தின் எந்த பகுதி யாவது சாகுபடியாளரால் பயிரிடப்பட்டுள்ளதா.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த பயிர்வகை மாதத்தில் செய்யப்பட்டது.	பயிரின் பெயர்.	பயிராண /அறுவடை யான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரங்களாடு.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
496	2	1.47.5	3.85	1 போக	தாரர்		–	–	–	–	
98	1A	0.12.0	0.30	1 போக	"		–	–	–	–	
98	1B	0.15.0	0.40	1 போக	"		–	–	–	–	
98	1C	0.36.0	0.95	1 போக	"		–	–	–	–	
98	1D	0.12.5	0.33	1 போக	"		–	–	–	–	
98	2A	0.64.0	1.70	1 போக	"		–	–	–	–	
98	2B	0.65.0	1.70	1 போக	"		–	–	–	–	
98	3B	0.39.0	1.00	1 போக	"		–	–	–	–	

/ ஒன்பது ரூ.45/-

ஆகஸ்ட் 2022

கிராம நிர்வாக அலுவலர்
28 மங்கலம், 36. பெண்ணாமை
செய்யார் வட்டம், திருவண்ணாமலை மாவட்டம்

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

எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

இரண்டாம் போகம்.							
எந்த மாதத்தில் பயிர் செய்யப்பட்டது அறுவடை மாதத்தில் பயிரிடப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரங்களாடு.	கிராம நிலவரிகள் முறிப்பேடு :- (1) புலன்களின் பகுதிகளில் மட்டும் பயிரிடப்பட்ட விபரங்களை அளவில். (2) வகையறாவில் நிலவார, நிலவர்களின் சாகுபடியில் பரப்பு. (3) முக்கிய மாதத்தில் பாய்ச்சல் தன்மையும்	(அ) வகை. (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலை. (இ) விசாயம் மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம். (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும். (ஊ) விதைக்கப்பட்ட நிகர பயிரில் சேர்க்கப்படாத மரவகைப் பயிர்களும் தோப்புகளும். (எ) நடப்புத் தரிசுகள் (ஏ) இன்ன தரிசு நிலங்கள்.	பயிர் பார்வையிடும் அலுவலர் குறிப்புகள்.
(13)	(14)	(15)	(16)	(17)	(18)	(18அ)	(19)

திருவண்ணாமலை ★ துலை இருப்புக்குழி ★ ராஜராஜரிஷி சாந்தத்துறை

ANNEXURE V

ANNEXURE VI

அ-பதிவேடு

District :Tiruvannamalai Taluk :CHEYYAR Village :PALLI

																நபர்(கள்)
495	1A2	495-1A	P	ர	புஞ்சை		7 - 4	5	2	62	0	46.00	1	25	443-இந்துமதி	
495	1B1	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	23.00	0	60	326-நவனீதம்மாள்	
495	1B2	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	30.00	0	75	37-முருகேசன்	
495	1B3	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	19.00	0	50	374-மன்னார் நாயுடு	
495	1B4	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	27.00	0	70	37-முருகேசன்	
495	1B5	495-1B	P	ர	புஞ்சை		7 - 4	5	2	62	0	33.00	0	85	374-மன்னார் நாயுடு	
495	1C	495-1C		ர	புஞ்சை		7 - 4	5	2	62	0	8.00	0	20	500-ஜெயப்பிரகாஷ்	
495	2	495-2		ர	புஞ்சை		7 - 4	5	2	62	1	16.00	3	05	500-ஜெயப்பிரகாஷ்	
					Total For Survey Number- 495						3	57.0	9	25		
496	1	496-1	P	அ	புறம்போக்கு		0 - 0	0	0	0	0	57.50	0	00	0	பாட்டை
496	2	496-2		ர	புஞ்சை		7 - 4	5	2	62	1	47.50	3	85	278-துலுக்காளம்	
496	3	496-3		ர	புஞ்சை		7 - 4	5	2	62	1	54.50	4	05	41-மரகதாம்பிகை மற்றும் 2 நபர்(கள்)	
					Total For Survey Number- 496						3	59.5	7	90		
497	1	497-1	P	அ	புறம்போக்கு	0	0 - 0	0	0	0	0	17.00	0	00	0	பாட்டை
497	2A	497-2A		ர	புஞ்சை	0	7 - 3	4	3	85	0	46.00	1	80	747-முருகேசன்	
497	2B	497-2B		ர	புஞ்சை	0	7 - 3	4	3	85	0	48.00	1	85	747-முருகேசன்	
497	2C	497-2C		ர	புஞ்சை	0	7 - 3	4	3	85	0	50.00	1	95	747-முருகேசன்	
					Total For Survey Number- 497						1	61.0	5	60		
498	-	498-		ர	புஞ்சை	0	7 - 3	4	3	0	0	50.00	2	00	37-முருகேசன்	
499	1	499-1		ர	புஞ்சை	0	7 - 4	5	2	62	0	7.50	0	20	136-குப்புசாமி	BALLI LAKE WATER MERGIBLE
499	2	499-2	P	அ	புறம்போக்கு	0	0 - 0	0	0	0	0	6.00	0	00	0	ஓடை
499	3	499-3		ர	புஞ்சை	0	7 - 4	5	2	62	0	33.00	0	85	136-குப்புசாமி	BALLI LAKE WATER MERGIBLE
499	4	499-4		ர	புஞ்சை	0	7 - 4	5	2	62	0	43.00	1	10	136-குப்புசாமி	BALLI LAKE WATER MERGIBLE
499	5	499-5		ர	புஞ்சை	0	7 - 4	5	2	62	0	43.00	1	10	42-ஆதிகேசவன்	
499	6A	499-6	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	9.00	0	25	980-கருணாநிதி	
499	6B	499-6	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	17.00	0	45	980-கருணாநிதி	
499	6C	499-6	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	15.00	0	40	980-கருணாநிதி	
499	7	499-7		ர	புஞ்சை	0	7 - 4	5	2	62	0	42.00	1	10	433-அன்னம்மாள் மற்றும் 4 நபர்(கள்)	
499	8	499-8		ர	புஞ்சை	0	7 - 4	5	2	62	0	40.50	1	10	155-இருசன் மற்றும் 1 நபர்(கள்)	
					Total For Survey Number- 499						2	56.0	6	55		
500	-	500-		அ	புறம்போக்கு	0	0 - 0	0	0	0	2	13.50	0	00	0	மற்றவை
501	1A1	501-1A		ர	புஞ்சை	0	7 - 4	5	2	0	0	58.50	1	00	284-செல்வநாயகம்	
501	1A2	501-1A		ர	புஞ்சை	0	7 - 4	5	2	0	0	58.50	1	00	890-ரோல்	
501	1B1	501-1B	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	38.50	1	00	372-அன்பு	BALLI LAKE WATER MERGIBLE
501	1B2	501-1B	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	13.00	0	35	372-அன்பு	WELL SET
501	1B3	501-1B	P	ர	புஞ்சை	0	7 - 4	5	2	62	0	28.00	0	75	372-அன்பு	WELL SET
501	2	501-2		ர	புஞ்சை	0	7 - 4	5	2	62	0	60.50	1	60	586-சரவணன்	
501	3	501-3		ர	புஞ்சை	0	7 - 4	5	2	62	0	60.50	1	60	433-அன்னம்மாள் மற்றும் 4 நபர்(கள்)	WELL SET
					Total For Survey Number- 501						3	17.5	7	30		
502	1A	502-1A		ர	புஞ்சை	0	7 - 4	5	2	62	0	66.50	1	75	863-கண்ணப்பன் மற்றும் 1 நபர்(கள்)	VILLAGE NATHAM IN 45.7 M.
502	1B	502-1B		ர	புஞ்சை	0	7 - 4	5	2	62	0	67.00	1	75	863-கண்ணப்பன் மற்றும் 1 நபர்(கள்)	VILLAGE NATHAM IN 45.7 M.
502	2	502-2		ர	புஞ்சை	0	7 - 4	5	2	62	0	42.00	1	10	863-கண்ணப்பன் மற்றும் 1 நபர்(கள்)	VILLAGE NATHAM IN 45.7 M.

துணை இயக்குநர் அலுவலகம் ★ நிலவியல் மற்றும் சுரங்கத்துறை ★ திருவண்ணாமலை

கிராம நிர்வாக அலுவலர்
28. மாகலம். 36. பலலி கிராமம்

District:Tiruvannamalai Taluk:CHEYYAR Village:PALLI

புல எண்	உட்பிரிவு எண்	புதிய புல எண் - உட்பிரிவு எண்	பகுதி	அரசு - ரயத்துவாரி	நிலத்தின் வகை	பாசன ஆதாரம்	இரு போகமா	மண் வயனமும் ரகமும்	மண் தரம்	திரவை - ஹெக	ரூ	பை	ஹெக்	பை	பட்டா எண்
97	2E1A	97-2E1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	4		47-பாலகிருஷ்ணன்
97	2E1B	97-2E1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.89	0	47-பாலகிருஷ்ணன்
97	2E2	97-2E	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.71	0	02 1783-சுமதி
97	2E3	97-2E	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.53	0	01 47-பாலகிருஷ்ணன்
97	3A	97-3	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	6.50	0	15 47-பாலகிருஷ்ணன்
97	3B1	97-3B	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	21.39	0	56 47-பாலகிருஷ்ணன்
97	3B2	97-3B	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1789-அருள்
97	3C1A1	97-3C1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	8.14	0	21 47-பாலகிருஷ்ணன்
97	3C1B	97-3C1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1787-மகேஷ்
97	3C2	97-3C	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.14	0	00 1783-சுமதி
97	3D1A1	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	21.99	0	58 53-சுந்தரம்
97	3D1B	97-3D1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	6.53	0	01 1788-மகேஷ்
97	3D2	97-3D	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.94	0	02 1698-மலர்விழி
97	4	97-2D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.26	0	01 1783-சுமதி
97	5	97-3C1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.58	0	02 1788-மகேஷ்
97	6	97-3C1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.53	0	04 47-பாலகிருஷ்ணன்
97	7	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1790-கலைவாணி
97	8	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.11	0	03 1791-ஸ்ரீதேவி
97	9	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	0.89	0	02 1792-ஸ்ரீதேவி
97	10	97-3D1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	1.93	0	05 53-சுந்தரம்
								TOTAL FOR SURVEY NUMBER-97				2	68.00	7	03
98	1A	98-1A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	12.00	0	30 1515-பெருமான்
98	1B	98-1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	15.00	0	40 1515-பெருமான்
98	1C	98-1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	36.00	0	95 1525-பெருமான்
98	1D1	98-1D	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	12.50	0	33 1534-பெருமான்
98	1D2	98-1D	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	52.50	1	38 1561-சரவணராஜ்
98	2A	98-2	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	64.00	1	70 1485-பெருமான்
98	2B	98-2	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	65.00	1	70 1515-பெருமான்
98	3A	98-3	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	94.50	2	50 747-முருகேசன்
98	3B	98-3	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	39.00	1	00 1514-பெருமான்
								TOTAL FOR SURVEY NUMBER-98				3	90.50	10	26
99	1	99-1	P	அரசு	புறம்போக்கு			0 - 0	0	0	00	0	21.00	0	00
99	2A1	99-2A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	45.00	1	17 131-சுப்பு
99	2A2	99-2A	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	5.00	0	13 747-முருகேசன்
99	2B	99-2	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	80.50	2	10 747-முருகேசன்
								TOTAL FOR SURVEY NUMBER-99				1	51.50	3	40
100	1A	100-1	P	ரயத்துவாரி	புஞ்சை			8 - 3	5	2	62	0	60.50	1	60 1526-சதாசிவம்

துணை இயக்குநர் அலுவலகம்
பதிவியல் மற்றும் சாரங்கத்துறை
திருவண்ணாமலை

29/2/2024

கிராம நிர்வாக அலுவலர்
28. மங்கலம், 36. பலனி கிராமம்
செய்யார் வட்டம் தி.மலை மாவட்டம்

ANNEXURE-7

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/25/3489	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3489	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	04.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3490	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3490	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	04.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3491	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3491	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	05.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3492	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3492	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	05.03.2025	Test Completed on	17.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	18.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3493	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3493	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	06.03.2025	Test Completed on	17.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3494	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3494	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	06.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3495	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3495	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	07.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3496	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3496	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	07.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory

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TEST REPORT

Report No.	SARL/25/3497	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3497	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3498	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3498	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

.

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/25/3499	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3499	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Shrient Analytical & Research Labs Pvt Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3500	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3500	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3501	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3501	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3502	Report Date.	17.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3502	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3531	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3531	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	63.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3532	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3532	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3533	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3533	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3534	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3534	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	12.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3535	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3535	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	12.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	62.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3536	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3536	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	63.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3537	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3537	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	13.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	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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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3538	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3538	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	13.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3539	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3539	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	14.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3540	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3540	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	14.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3541	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3541	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	15.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3542	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3542	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	15.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3543	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3543	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	16.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	62.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3544	Report Date.	24.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3544	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	16.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3573	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3573	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	18.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	66.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3574	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3574	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	18.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3575	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1B-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3575	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	19.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3576	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-357	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	19.03.2025	Test Completed on	31.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	40.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3577	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3577	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	20.03.2025	Test Completed on	31.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3578	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3578	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	20.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3579	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3579	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	21.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3580	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3580	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	21.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3581	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3581	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3582	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3582	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	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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Shrient Analytical & Research Labs Pvt Ltd ★ Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3583	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3583	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3584	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3584	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3585	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3585	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3586	Report Date.	31.03.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3586	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3615	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3615	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3616	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3616	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

.

For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Shrient Analytical & Research Labs Pvt Ltd ★ Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3617	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3617	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3618	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3618	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3619	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3619	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3620	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3620	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3621	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3621	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	27.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3622	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3622	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	27.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3623	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3623	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	28.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3624	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3624	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	28.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3625	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1B-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3625	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	29.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3626	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3626	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	29.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3627	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1B-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3627	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	30.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3628	Report Date.	07.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3628	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	30.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	41.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3657	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3657	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	01.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3658	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3658	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	01.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3659	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3659	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	02.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt Ltd Chennai - 45.

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3660	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3660	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	02.04.2025	Test Completed on	14.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	19.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3661	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3661	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	03.04.2025	Test Completed on	14.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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Please Contact:
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TEST REPORT

Report No.	SARL/25/3662	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3662	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	03.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.32	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3663	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3663	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	04.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3664	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3664	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	04.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3665	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3665	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3666	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3666	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
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Report No.	SARL/25/3667	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3667	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3668	Report Date.	14.04.2025

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Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3668	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3669	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3669	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3670	Report Date.	14.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3670	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3699	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3699	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3700	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3700	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3701	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3701	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.9	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3702	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3702	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3703	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3703	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3704	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3704	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3705	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3705	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	10.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3706	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3706	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	10.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3707	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3707	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	11.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3708	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3708	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	11.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3709	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3709	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	12.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	67.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	32.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3710	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3710	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	12.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3711	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3711	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	13.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	63.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3712	Report Date.	21.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3712	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	13.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3741	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3741	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	15.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3742	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3742	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	15.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	43.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3743	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3743	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	16.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

.

For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt Ltd Chennai - 45.

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3744	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3744	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	16.04.2025	Test Completed on	28.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3745	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3745	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	17.04.2025	Test Completed on	28.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3746	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3746	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	17.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3747	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3747	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	18.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3748	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3748	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	18.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3749	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3749	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3750	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3750	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3751	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3751	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
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TEST REPORT

Report No.	SARL/25/3752	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3752	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3753	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3753	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3754	Report Date.	28.04.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3754	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	59.1	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3783	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3783	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3784	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3784	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3785	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3785	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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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/25/3786	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3786	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3787	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3787	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3788	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3788	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3789	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3789	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	24.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3790	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3790	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	24.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3791	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3791	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	25.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	6.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3792	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3792	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	25.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3793	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3793	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	26.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	62.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3794	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3794	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	26.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	20.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.8	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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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/25/3795	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3795	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	27.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	64.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3796	Report Date.	05.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3796	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	27.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3824	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3824	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	29.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3825	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3825	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	29.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3826	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3826	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	30.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3827	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3827	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	30.04.2025	Test Completed on	12.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3828	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3828	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	01.05.2025	Test Completed on	12.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3829	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3829	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	01.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	47.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3830	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3830	Sample Received on	05.05.2025
Sample Collected by	02.05.2025	Test Commenced on	05.05.2025
Sample Collected on	18.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3831	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3831	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	02.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3832	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3832	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3833	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3833	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3834	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3834	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.9	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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Authorized Signatory
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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3835	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3835	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3836	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3836	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3837	Report Date.	12.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3837	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3866	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3866	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3867	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3867	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
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TEST REPORT

Report No.	SARL/25/3868	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3868	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
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TEST REPORT

Report No.	SARL/25/3869	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3869	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

.

For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs PVT LTD Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3870	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3870	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3871	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3871	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3872	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3872	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	08.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	54.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3873	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3873	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	08.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3874	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3874	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	09.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3875	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3875	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	09.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.9	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3876	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3876	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	10.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	61.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3877	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3877	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	10.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3878	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3878	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	11.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	57.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3879	Report Date.	19.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3879	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	11.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.9	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3908	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3908	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	13.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	61.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3909	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3909	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	13.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	28.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3910	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3910	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	14.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	63.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.0	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3911	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3911	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	14.05.2025	Test Completed on	26.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	44.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	18.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3912	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3912	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	15.05.2025	Test Completed on	26.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3913	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3913	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	15.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	46.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	26.8	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.1	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3914	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3914	Sample Received on	19.05.2025
Sample Collected by	02.05.2025	Test Commenced on	19.05.2025
Sample Collected on	16.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.7	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

.

For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3915	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3915	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	16.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	24.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3916	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3916	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3917	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3917	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
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Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3918	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3918	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3919	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3919	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	55.7	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	27.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.0	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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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/25/3920	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3920	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	64.4	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	35.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.7	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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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3921	Report Date.	26.05.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3921	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	65.0	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	35.6	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.6	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3950	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3950	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	58.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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

Report No.	SARL/25/3951	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3951	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt Ltd ★ Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3952	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3952	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	60.9	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3953	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3953	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	53.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3954	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3954	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.2	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	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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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3955	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3955	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	56.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	29.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	6.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3956	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3956	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	22.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	45.3	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3957	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3957	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	22.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	48.8	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	21.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	5.2	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3958	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3958	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	23.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	51.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3959	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3959	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	23.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	49.2	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	25.3	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.4	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

.

For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Shrient Analytical & Research Labs Pvt. Ltd Chennai - 45

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3960	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3960	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	24.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	67.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	31.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	8.7	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	12.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3961	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3961	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	24.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	50.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	23.5	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	3.8	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3962	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1b-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3962	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	65.5	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	30.1	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	7.5	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	11.8	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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S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3963	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

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

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3963	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM_{10})	IS:5182: Part 23:2006	$\mu g/m^3$	52.6	100
2	Particulate Matter less than 2.5micron size ($PM_{2.5}$)	IS 5182 (Part 24):2019	$\mu g/m^3$	22.4	60
3	Sulphur dioxide (SO_2)	IS:5182: Part 02:2001	$\mu g/m^3$	4.3	80
4	Nitrogen Dioxide (NO_2)	IS:5182: Part 06:2006	$\mu g/m^3$	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m^3	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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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/25/3964	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	GW 1b - Within Mine Lease area

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3964	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.36	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1024	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	615	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	430	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	81.6	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	54.2	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	204	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	226	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	316	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	80.4	1000

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TEST REPORT

Report No.	SARL/25/3964

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	120	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.07	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	2.45	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.34	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).

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3965	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	GW 2- Palli

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3965	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.88	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	402.5	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	242	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	172	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	43.6	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	15.1	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	109	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	63	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	148	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	32.5	1000

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TEST REPORT

Report No.	SARL/25/3965

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	14.2	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.05	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL(D.L-1.0)	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.25	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3966	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	GW 3 - Cholavaram

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3966	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	6.96	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	716.8	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	430	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	234	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	56.8	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	22.1	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	142	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	92	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	159	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	160	1000

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TEST REPORT

Report No.	SARL/25/3966

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	73.5	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.05	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	3.65	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.27	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).

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For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3967	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	GW 4 - Mangalam

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3967	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.41	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1680	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1010	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	350	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	65.6	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	44.6	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	164.0	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	186	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	320	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	332	1000

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TEST REPORT

Report No.	SARL/25/3967

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	208	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	2.15	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.38	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).

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3968	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	GW 5- Vadaelapakkam

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3968	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.32	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1002	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	602	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	405	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	76	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	51.6	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	190	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	215	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	254	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	115	1000

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TEST REPORT

Report No.	SARL/25/3968

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	114	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.07	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	2.78	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.27	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).

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For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3969	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	GW 6- Perumbulimedu

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3969	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.56	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1156	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	695	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	330	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	72.8	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	35.5	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	182	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	148	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	256	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	180	1000

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TEST REPORT

Report No.	SARL/25/3969

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	212	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL(D.L - 0.01)	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	2.02	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.56	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).

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For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3940	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	GW 7-Vadapoondipattu

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3940	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
A.	**Physical parameters**				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.38	6.50-8.50
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	1864	-
B.	**Chemical parameters**				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1120	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	436	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	74.4	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	60.0	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	186	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	250	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	305	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	354	1000

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TEST REPORT

Report No.	SARL/25/3940

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result	*Limits Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	355	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL(D.L - 0.01)	0.3
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	3.63	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.64	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).

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For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3971	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	SW 1-Cheyyar River up stream

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3971	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.06.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result
A.	**Physical parameters**			
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.72
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	252
B.	**Chemical parameters**			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	152
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	94.2
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	23.4
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	8.57
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	58.5
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	35.7
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	35.6
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	142

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TEST REPORT

Report No.	SARL/25/3971

Report Date.	02.06.2025

Sl. No.	Parameters	Protocol	Unit	Result
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	15.6
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL (D.L - 0.01)
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL (D.L - 1.0)
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.28
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL(D.L-0.05)
19	Chemical Oxygen Demand	APHA 24th Edition 5220 B: 2023	mg/L	BDL (D.L – 4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27^{o}c	IS 3025 (Part 44): 1993	mg/L	BDL (D.L – 2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	BDL (D.L – 2.0)
22	Dissolved Oxygen	IS 3025 (Part 38): 1989	mg/L	6.2

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3972	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	WATER
Sample Mark	SW 2 -Cheyyar River down stream

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3972	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.06.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result
A.	**Physical parameters**			
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable
2	Turbidity	APHA 24th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 ˚C	APHA 24th Edition 4500 – H+ B: 2023	-	7.89
4	Electrical Conductivity	APHA 24th Edition 2510 B: 2023	(µS/cm)	243
B.	**Chemical parameters**			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	146
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	92.2
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	22.2
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	8.81
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	55.5
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	36.7
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	35.1
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	138

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TEST REPORT

Report No.	SARL/25/3972	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	18.9
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL(D.L - 0.01)
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	0.32
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL(D.L-0.05)
19	Chemical Oxygen Demand	APHA 24th Edition 5220 B: 2023	mg/L	BDL (D.L – 4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27^{o}c	IS 3025 (Part 44): 1993	mg/L	BDL (D.L – 2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	BDL (D.L – 2.0)
22	Dissolved Oxygen	IS 3025 (Part 38): 1989	mg/L	6.3

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

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TEST REPORT

Report No.	SARL/25/3974	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	SOIL
Sample Mark	S1b-Within Mine Lease area

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3974	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	-	6.92
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	78.73
3	Dry matter content	IS 15106: 2002	%	94.28
4	Water Content	IS 15106: 2002	%	5.72
5	Organic Matter	IS 2720: Part 22: 1972	%	0.58
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	205
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Clay LOAM
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	30.72
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	42.34
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	26.94
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.27
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	552
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	320
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	%	19.7
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	45

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/25/3975	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	SOIL
Sample Mark	S2- Palli

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3975	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	-	6.87
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	46.65
3	Dry matter content	IS 15106: 2002	%	97.44
4	Water Content	IS 15106: 2002	%	2.56
5	Organic Matter	IS 2720: Part 22: 1972	%	0.74
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	145
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	48.65
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	31.66
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	19.69
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.65
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	432
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	632
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	%	20.7
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/25/3976	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	SOIL
Sample Mark	S3- Cholavaram

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3976	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	-	6.95
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	60.97
3	Dry matter content	IS 15106: 2002	%	96.57
4	Water Content	IS 15106: 2002	%	3.43
5	Organic Matter	IS 2720: Part 22: 1972	%	0.81
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	182
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	34.45
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.49
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	20.06
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.22
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	389
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	589
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	%	22.2
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/25/3977	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	SOIL
Sample Mark	S4- Mangalam

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3977	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	-	7.01
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	42.58
3	Dry matter content	IS 15106: 2002	%	97.05
4	Water Content	IS 15106: 2002	%	2.95
5	Organic Matter	IS 2720: Part 22: 1972	%	1.18
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	232
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	40.06
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	36.55
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	23.39
9	Phosphorus as P	IS 10158: 1982	mg/kg	2.1
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	4.23
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	6.58
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	%	24.1
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/25/3978	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	SOIL
Sample Mark	S5- Vadaelapakkam

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3978	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	-	7.44
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	132
3	Dry matter content	IS 15106: 2002	%	95.57
4	Water Content	IS 15106: 2002	%	4.43
5	Organic Matter	IS 2720: Part 22: 1972	%	0.98
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	164
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Loam
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	66.72
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	23.76
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	9.52
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.98
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	475
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	295
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	%	20.9
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	41

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/25/3979	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	SOIL
Sample Mark	S6- Perumbulimedu

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3979	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	-	6.92
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	48.95
3	Dry matter content	IS 15106: 2002	%	97.32
4	Water Content	IS 15106: 2002	%	2.68
5	Organic Matter	IS 2720: Part 22: 1972	%	0.76
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	149
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	49.55
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	31.69
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	18.76
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.24
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	432
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	630
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	%	22.6
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/25/3980	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	SOIL
Sample Mark	S7- Vadapoondipattu

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3980	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	-	7.86
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	59.58
3	Dry matter content	IS 15106: 2002	%	95.29
4	Water Content	IS 15106: 2002	%	4.71
5	Organic Matter	IS 2720: Part 22: 1972	%	1.05
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	302
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay Loam
8	Grain Size Distribution i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	6.75
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	62.09
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	31.16
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.23
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	796
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	405
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	%	20.5
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	38

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory

S. BALAMURUGAN
Asst.Technical Manager

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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/25/3981	Report Date.	02.06.2025

Customer Name & Address	ROUGH STONE AND GRAVEL of Tmt.T.Poornima, Over an extent of 3.52.0hectares of Patta land in S.F.Nos. 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Sample Description	NOISE LEVEL DATA

Customer Reference	As per work order	Sampling Method	SARL/IOP/023
Sample Reference No	SARL/NO/CHE-3981	Date of Monitoring	24.03.2025/ 25.03.2025
Sample Collected by	LABORATORY		

Time in hrs	N1	N2	N3	N4	N5	N6	N7
06.00	40.0	40.0	41.7	42.2	39.9	41.7	38.3
07.00	47.4	47.4	44.3	50.1	42.2	43.8	45.7
08.00	51.4	51.4	47.2	48.9	48.4	46.0	49.7
09.00	52.8	52.8	49.1	50.6	52.0	47.5	51.1
10.00	50.1	50.1	50.3	42.8	53.8	48.8	48.4
11.00	53.1	53.1	49.2	46.1	51.0	45.1	51.4
12.00	47.3	47.3	50.1	47.2	50.1	47.0	45.6
13.00	48.1	48.1	50.7	45.4	49.5	45.5	46.3
14.00	51.1	51.1	48.8	48.3	52.9	45.7	49.4
15.00	50.2	50.2	46.1	44.5	53.2	44.1	48.6
16.00	50.0	50.0	49.2	46.7	52.5	45.5	48.3
17.00	45.1	45.1	45.4	48.2	51.5	43.1	43.4
18.00	43.0	43.0	45.8	47.1	48.9	41.8	41.3
19.00	42.3	42.3	47.2	44.7	47.4	39.6	40.6
20.00	41.1	41.1	42.9	42.2	45.2	38.5	39.4
21.00	43.0	43.0	44.0	40.2	44.2	40.1	41.3
22.00	39.2	39.2	42.1	38.3	40.7	39.3	37.5
23.00	37.8	37.8	41.2	38.8	40.1	39.7	36.1
24.00	40.0	40.0	39.7	39.5	39.2	36.3	38.3
01.00	38.4	38.4	40.1	38.4	38.4	36.8	36.7
02.00	39.2	39.2	39.5	39.8	40.2	35.5	37.5
03.00	40.5	40.5	40.2	38.9	40.8	36.1	38.8
04.00	38.4	38.4	41.0	39.1	41.3	36.8	36.7
05.00	42.1	42.1	40.0	39.9	40.8	38.6	40.4

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TEST REPORT

Report No.	SARL/25/3981

Report Date.	02.06.2025

	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	**48.9**	**48.9**	**47.8**	**46.8**	**50.3**	**44.9**	**47.2**
NIGHT EQUIVALENT	**39.7**	**39.7**	**40.6**	**39.1**	**40.3**	**37.6**	**38.0**
DAY & NIGHT EQUIVALENT	**47.4**	**47.4**	**46.4**	**45.4**	**48.8**	**43.5**	**45.7**

Remarks:

LOCATIONS:

N1b-Within Mine Lease area
N2- Palli
N3- Cholavaram
N4- Mangalam
N5- Vadaelapakkam
N6- Perumbulimedu
N7- Vadapoondipattu

For Shrient Analytical and Research Labs Pvt. Ltd

Verified

Shrient Analytical & Research Labs Pvt. Ltd. Chennai - 45.

Authorized Signatory
S. BALAMURUGAN
Asst.Technical Manager

*****END OF THE REPORT*****

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

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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 thislaboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: SHRIENT ANALYTICAL AND RESEARCH LABS PRIVATE LIMITED

Signed for and on behalf of NABL

Anuja Anand
Director

Chakravarthy T. Kannan
Chief Executive Officer

ANNEXURE-9

விடுநர்

திரு. ச.அன்பழகன்,M.Sc.,M.A.,M.A.,M.Ed.,M.Phil

தலைமை ஆசிரியர்

அரசு மேல்நிலைப் பள்ளி,

பல்லி.

பெறுநர்

T.பூர்ணிமா

க/பெ. தமிழ் ஒளி

1/62 வடக்குத் தெரு

பன்ருட்டி கிராமம்

காஞ்சிபுரம் மாவட்டம்

ந,க.எண்.73 /2025 நாள். 22.07.2025

அன்புடையீர்,

பொருள் : பல்லி, அரசு மேல்நிலைப் பள்ளி – பள்ளி வளர்ச்சிக்காக நிதி கோருதல் சார்பு .

xxxxxxx

திருவண்ணாமலை மாவட்டம் , செய்யாறு வட்டம், பல்லி, கிராமத்தில் புதியதாக கல்குவாரி அமையஉள்ளதாக அறிகிறோம் மேற்படி பல்லி, அரசு மேல்நிலைப் பள்ளி சீரும் சிரப்புமாக இயங்கி வருகிறது .

இப்பள்ளியில் 6 முதல் 12ஆம் வகுப்பு வரை மாணவ / மாணவியர்கள் 591 போர் கல்வி பயின்று வருகின்றனர். இப்பள்ளிக்கு தேவையானவை சார்ந்த விவரங்கள் கீழ்கண்டவாறு.

1. பெண்கள் கழிப்பறை - 1
2. குடிநீர் வசதி (மேல்நிலை நீர் தேக்க தொட்டி) - 1

24/7/25

தலைமை ஆசிரியர்,
அரசு மேல்நிலைப் பள்ளி,
பல்லி-604407, செய்யாறு Tk, தி.மலை Dt.

24/7/25